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# ROTUNDA

Vol. 19, No. 2 February 1994

For Participating and Higher Members of the American Museum of Natural History



*A new exhibition and Naturemax film profile a stunning array of the marine world's evolutionary wonders, including (clockwise, from top) the gentle whale shark, a 17-foot-long great white, and an encounter between a safety diver and a blue shark.*



## Sharks! Fact and Fantasy

Exhibition opens in Gallery 3: Friday, February 4  
Members' preview: Thursday, February 3

They swam in ancient seas more than 450 million years ago, long before any backboned animals walked on land. They have existed three times as long as dinosaurs, more than 100 times as long as humans, and their basic blueprint has changed little over the last 100 million years. The new exhibition *Sharks! Fact and Fantasy* profiles these often-misunderstood evolutionary marvels.

Visitors walk through an underwater habitat in which special lighting creates the illusion of sunlight filtering through water and audio effects simulate an ocean environment. A dozen life-sized models, ranging from an 18-

inch catshark to a 20-foot-long white shark, illustrate the tremendous variety among species. An animated gray reef shark responds to a distressed fish's flailings with a threat display — back arched, lowered pectoral fins, and head and tail wagging. Interactive exhibits explore shark biology and show how these animals adapted to make the most of their environments, developing highly specialized senses of sight, hearing, and smell.

People the world over have represented sharks in myth and legend, literature, advertising, and art, and these images have influenced the understanding of sharks as animals.

The exhibition concludes with a look at sharks in human culture and as an economic resource. Examples from the vast array of shark products are displayed, including a sandpaper used by the Chumash Indians, shark fin soup, shark liver oil, and the many uses of teeth — ceremonial, decorative, and as jewelry. Sharks as a source for recreational and commercial fishing are analyzed, and the many scientific and medical uses of sharks are shown.

*Sharks! Fact and Fantasy* is sponsored by the National Science Foundation and was organized by the Natural History Museum of Los Ange-

les County. It will be on display in Gallery 3 through May 1.

### Members' Events

Participating and Higher Members can attend a preview of the new exhibition on Thursday, February 3, from 4:00 to 7:00 p.m. and a private viewing of the new Naturemax film *Search for the Great Sharks* at 7:30 p.m. See page 9 for details.

Other Members' events include *A Saturday with the Sharks*, children's birthday theme parties, a lecture by the *Sharks* curator, and guided tours. Further information appears on page 9





## A Society of Wolves

Thursday,  
February 17

The controversial issue of reintroducing wolves to Yellowstone National Park and

other areas will be discussed at the Members' program *A Society of Wolves*. A park ranger for 32 seasons, Rick McIntyre has spent 16 years observing wild wolves in Alaska and Montana and two years studying a captive wolf pack. He'll talk about the social behavior of packs, pup

rearing, wolf-prey relations, and the interactions between humans and wolves.

The program will take place at 7:00 p.m. in the Kaufmann Theater. Tickets are \$8 for Members and \$11 for non-Members. Use the February Members' programs coupon on page 3 to register.

## Saving Grace at Angkor Wat

Tuesday, February 8

The ancient monument sites of Cambodia, including the twelfth-century temples and monasteries of Angkor Wat, are among the world's great wonders. The region's architectural treasures are under increasing pressure from 20 years of war and civil strife, looters, and development as a tourist attraction. Bonnie Burnham, executive director of the

World Monuments Fund, will discuss the conservation and restoration efforts initiated by the fund and other international cultural institutions.

The program will take place at 7:00 p.m. in the Kaufmann Theater. Admission is \$6 for Members and \$9 for non-Members; use the February Members' programs coupon on page 3 to register.

## Members' Workshops on Earth History

Wednesdays,  
February 16 and 23

Geologist Sidney Horenstein, the Museum's coordinator of environmental public programs, will host a pair of workshops that reveal why rocks are the pages of earth's history. Participants will use paleogeographic maps to see the

continuous movement of the continents over time, and they'll work with charts and diagrams to learn how radioactivity helps to determine the age of rocks. They'll also see how fossils contribute to deciphering the sequence of layered rocks.

The workshops will take place from 5:30 to 7:30 p.m. Tickets are \$40 and available only to Participating and Higher Members. Use the coupon on page 5 to register, and please note that tickets are available only by mail.

## Members' Day Trip to Ellis Island

Sunday, February 27

**SOLD OUT**  
From Previous Issue

From 1892 to 1954 the depot at Ellis Island processed some 17 million people — the greatest tide of immigration in the nation's history. The main building was refurbished in time for the depot's centennial in 1992, and the restoration project's centerpiece is a museum of more than 30 galleries filled with

artifacts, historic photos, posters, maps, oral histories, and ethnic music.

Historian Joyce Gold will escort Members on a trip to Ellis Island that begins in Lower Manhattan with a look at vestiges of the city's earliest immigration. Gold will continue her presentation aboard the ferry and inside the museum's Great Hall. A museum staff member will take participants on a brief behind-the-scenes tour, and there will be ample time for individual exploration.

The trip will take place from 9:30 a.m. to 3:30 p.m. Tickets are \$25 and available only to Participating and Higher Members.



The Yueh Lung Shadow Theatre

## Traditional Shadow Theater

Tuesday, February 1

The classical legends of the East were transmitted from generation to generation by itinerant shadow masters. These practitioners of a

2,000-year-old Chinese folk art presented dramas based on concepts from religion, folk tales, and epic literature. A cast of heroes, demons, and other supernatural characters, manipulated from behind a back-lit screen, appear as glowing animated figures that illustrate ideals of social behavior and basic moral values shared by all civilizations.

The Yueh Lung Shadow

Theatre is the only company of its kind in America. Their performance, which is presented in celebration of the Chinese New Year, is geared toward audiences ages 8 and older. The program will take place at 7:00 p.m. in the Kaufmann Theater. Tickets are \$7 for Members and \$10 for non-Members. Call the Membership Office at (212) 769-5606 for information about ticket availability.

## ROTUNDA

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# Invitation to Geology: A Beginners' Guide

Tuesday, March 22, and Thursday, March 24  
7:00 p.m.  
Kaufmann Theater  
\$12 for Members, \$20 for non-Members

Geologist Sidney Horenstein will present a two-part lecture series on our dynamic planet that introduces the basic aspects of geology. By studying the record of past changes written upon the face of the earth, we can not only see the geologic past but also infer what the future may hold.

The lectures will investigate the movement of continents, volcanic activity, and earthquakes. In addition to their disastrous effects, earthquakes are a continuous source of data for analysts of the earth's interior. Horenstein will describe these and other natural processes such as the wearing down of mountains, the elevation of continents, and the melting of rocks. Long before

the phenomena of drifting continents and interacting plates were recognized, geologists were aware of the continuous creation, alteration, and degradation of rocks. Participants will learn about current ideas of how life originated and our place in the universe.

Use the coupon at right to register.



Learn about the formation of the Polisodes

## Members' Tour

## Ecology of North America

Friday, March 18  
3:00, 4:30, and 6:00 p.m.  
\$16, and open only to Participating and Higher Members

Join geologist Sidney Horenstein for a trip around North America that will view some of the continent's major ecological systems in their natural and undisturbed settings. The tour will look at Museum dioramas and participants will learn how these regions were altered by human contact.

Horenstein, who is the Museum's coordinator of environmental public programs, will lead participants through several of the Museum's exhibition halls, including North American Forests, Mammals, and Birds. He'll discuss regional vegetation and climate and point out how geology is a factor in habitats.

Use the coupon on page 5 to register, and please note that tickets are available only by mail.



Museum dioramos illustrate regional ecology

# February Members' Programs Coupon

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Daytime telephone: \_\_\_\_\_

Membership category: \_\_\_\_\_

Total amount enclosed: \_\_\_\_\_

Please make check (if applicable) payable to the American Museum of Natural History and mail with a **self-addressed, stamped envelope** to: February Members' Programs, Membership Office, American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192. **Telephone reservations are not accepted. No refunds or exchanges.**

**Unless otherwise indicated, no more than eight tickets may be ordered for a program. Participating Members are entitled to four tickets per program at the Members' price. Higher Members are entitled to six tickets, and Associate Members are entitled to one ticket.**

**Members' private viewing at Naturemax**  
Thursday, February 3, 7:30 p.m.  
Number of Members' tickets at \$6: \_\_\_\_\_  
Total amount enclosed for program: \_\_\_\_\_

**Angkor Wat.** Tuesday, February 8, 7:00 p.m.  
Number of Members' tickets at \$6: \_\_\_\_\_  
Number of additional tickets at \$9: \_\_\_\_\_  
Total amount enclosed for program: \_\_\_\_\_

**Society of Wolves.** Thursday, February 17, 7:00 p.m.  
Number of Members' tickets at \$8: \_\_\_\_\_  
Number of additional tickets at \$11: \_\_\_\_\_  
Total amount enclosed for program: \_\_\_\_\_

**Fascinating Fossils.** Friday, February 25, 7:00 p.m.  
Number of free Members' tickets (no more than 2, please): \_\_\_\_\_  
Number of additional Members' tickets at \$5: \_\_\_\_\_  
Number of non-Members' tickets at \$8: \_\_\_\_\_  
Total amount enclosed for program: \_\_\_\_\_

**Members' Tours of Shorks!** Friday, March 4.  
Please indicate a first, second, and third choice.  
\_\_\_\_ 4:00 p.m. \_\_\_\_ 5:00 p.m.  
\_\_\_\_ 6:00 p.m. \_\_\_\_ 7:00 p.m.  
Number of free Members' tickets (no more than 2, please): \_\_\_\_\_

**The World of Animals.** Saturday, March 5.  
Please indicate a first and second choice.  
\_\_\_\_ 11:30 a.m. \_\_\_\_ 1:30 p.m.  
Number of Members' tickets at \$5: \_\_\_\_\_  
Number of additional tickets at \$8: \_\_\_\_\_  
Total amount enclosed for program: \_\_\_\_\_

**A Night Out with the Neandertals**  
Thursday, March 10, 7:00 p.m.  
Number of Members' tickets at \$10: \_\_\_\_\_  
Number of additional tickets at \$15: \_\_\_\_\_  
Total amount enclosed for program: \_\_\_\_\_

**Artistic Expression in an Amazonian Culture**  
Friday, March 11, 7:00 p.m.  
Number of Members' tickets at \$7: \_\_\_\_\_  
Number of additional tickets at \$10: \_\_\_\_\_  
Total amount enclosed for program: \_\_\_\_\_

**Invitation to Geology**  
Tuesday, March 22, and Thursday, March 24, 7:00 p.m.  
Number of Members' tickets at \$12: \_\_\_\_\_  
Number of additional tickets at \$20: \_\_\_\_\_  
Total amount enclosed for program: \_\_\_\_\_

**The Somoritos and Jews of Indio**  
Wednesday, March 30, 7:00 p.m.  
Number of Members' tickets at \$7: \_\_\_\_\_  
Number of additional tickets at \$10: \_\_\_\_\_  
Total amount enclosed for program: \_\_\_\_\_

**NOTE:** Orders received less than ten days before show dates will be held for pick-up at the door on the day of the program if tickets are still available. If an event is sold out, you will be advised in writing or by phone and your check will be returned.



## The World of Animals

Saturday, March 5  
11:30 a.m. and 1:30 p.m.  
Kaufmann Theater  
\$5 for Members, \$8 for non-Members  
Appropriate for ages 5 through adult

Members will see a live 5-foot-long iguana in the Kaufmann Theater and learn how wild iguanas are helping to restore the rain forests in Colombia and Costa Rica. Naturalist Bill Robinson will bring some of his wild friends to the Museum next month to discuss their roles in nature and offer live demonstrations of their adaptations for survival.

Robinson will explain some of the many ways in which

animals trick each other to avoid being eaten or to scare up a meal. A brush-tailed porcupine will rub its quills together to make a cobra-like sound that frightens away predators. Another guest, a 110-pound alligator snapping turtle, disguises its tongue as a wriggling worm that lures unsuspecting fish right down its throat.

Among the other animals appearing at the show will be a huge African pouch rat

that's 3 feet long and weighs 8 pounds, African eagles that will fly around the room, and an enormous python.

Robinson, who presents his dramatic wildlife programs to thousands of schoolchildren each year, has appeared at the Museum for the past 14 years. Please note that all attendees, parents and children alike, must have tickets. Use the February Members' programs coupon on page 3 to register.



Members' Adult-Child Workshop

## The Mouse in the Matzoh Factory

Sunday, March 20  
11:00 a.m., 12:30 and 2:00 p.m.  
\$16 per couple, and open only to Participating and Higher Members  
Appropriate for ages 5-8



The mouse is back! Next month he'll make his fifth annual appearance at the Museum for a special Passover program of songs, laughter, and matzoh making. Author Francine Medoff will read her story *The Mouse in the Matzoh Factory*, and then each child will help her

mix the dough for matzoh. Participants will take the dough home with them to bake in their own kitchens.

A former nursery school teacher, Medoff is a working artist and a part-time administrator at the Hebrew School of Temple Beth Israel in Port Washington, New York. The

program lasts approximately 45 minutes and is appropriate for children between the ages of 5 and 8. Please note that all attendees must have tickets, which are available only by mail. Members are limited to two tickets per request for this popular show; use the coupon on page 5 to register.

## The Samaritans and Jews of India

Wednesday, March 30  
7:00 p.m.  
Main Auditorium  
\$7 for Members, \$10 for non-Members

Two intriguing documentaries about dwindling Jewish communities offer a look at vanishing ways of life. Filmmaker Johanna Spector will introduce and comment on her documentaries *The Samaritans* and *Jews of India*.

The rituals and lifestyles of a Middle Eastern population that separated from the Jewish mainstream more than 2,500 years ago are the focus of *The Samaritans*. Considering themselves Hebrews rather than Jews, the Samaritans' practices and rites are derived from the Samaritan Pentateuch, akin to the Torah, rather than the Talmud and Bible. Their observances are not influenced by Judaic interpretation and offer a fascinating contrast to those of modern Judaism, since the Samaritans observe the Sabbath, holidays, festivals, and the Passover Paschal lamb sacrifice much as they were observed 2,000 years ago.

The film is a remarkable ethnographic record of a little-known people who once numbered in the hundreds of thousands and lived throughout the Levant and Egypt. Now they dwell only in two small enclaves — one in the city of Holon, Israel, the other in the city of Nablus, on the West Bank of the Jordan — and these communities numbered fewer than 450 individuals at the time of the filming. The 1971 film is 30 minutes long.

About the *Jews of India*: Shaniwar Telis or Bene Israel portrays the Jewish community of Bombay, which numbered only 6,000 (about one-quarter of its original size) when the film was finished in 1978. Most of these Indian

Jews migrated to Israel, and their motivation to do so was on religious grounds rather than an avoidance of persecution. The tolerance with which Jews have been treated in India distinguishes them from all other diaspora communities.

The Jews of this region lived in small enclaves in the villages around Bombay, specializing as producers and sellers of palm oil. Their Marathi name, Shanwar Telis (Saturday oil pressers), indicates that they refrained from selling oil on the Sabbath. In addition to keeping the Sabbath, this group maintained only a bare minimum of religious observance until the 1800s, when British rule brought prosperity to Bombay and many of the Shanwar Telis moved to the city. There they encountered for the first time Jews from other communities, from whom they learned Sephardic Jewish ritual and under whose influence their lives came to resemble those of other diaspora communities: they built synagogues, translated religious texts into local dialects, and started religious schools and other communal institutions. The film is 40 minutes long.

Anthropologist Johanna Spector, who is a music ethnologist as well as a filmmaker and director, will introduce the films and answer questions from the audience afterward. Spector's film *2,000 Years of Freedom and Honor: The Cochin Jews of India* premiered at the Museum in 1992, as did her documentary *Jews of Yemen* in 1986.

Use the February Members' programs coupon on page 3 to register for the program.



# A Night Out with the Neandertals

Thursday, March 10  
7:00 p.m.  
Main Auditorium  
\$10 for Members, \$15 for non-Members

The European and Near Eastern Neandertals are the best and longest known of the premodern humans, and theirs is a primary role in the study of modern human origins. Anthropologist Erik Trinkaus believes that at least one variant of the Neandertal strain may have shared some of its genes with anatomically modern human beings and that some or all of us today may be closer kin to Neandertals than most people realize.

At *A Night Out with the Neandertals* Trinkaus will review current images of the Neandertals, the history of ideas regarding their role in

modern human origins, and their ancestor-descendant relationship to us. He'll focus on the current understanding of who the Neandertals were — in terms of appearance, capabilities, and behavior — as reflected by their anatomy, robusticity, stress levels, demography, technology, and social behavior. Clues from both Neandertal fossils and their associated archeological remains will be discussed, and Trinkaus will show slides of this evidence along with images of the Neandertals through the past century.

Professor and chairman of the Department of Anthro-

pology at the University of New Mexico, Trinkaus has been a research associate of the University of Bordeaux since 1986. He is the author of *The Shanidar Neandertals* (1983), which concerns his work in the restoration and primary description of the Neandertals from Shanidar Cave, Iraq. His most recent publication, *In Search of the Neandertals: Solving the Puzzle of Human Origins* (1993), which he co-wrote with Pat Shipman, is a gripping story of evolutionary discoveries and debates.

Use the coupon on page 3 to register for the program.

## Artistic Expression in an Amazonian Culture

The Pula-pula Ceremonial Log Drum is among the drawings on display in the new exhibition *Waurá*, which features a selection of drawings by the Wauja (Waurá) Indians of Brazil's Alto-Xingu region. Geometrical designs inspired by patterns in the natural world, such as the diamond-shaped "anacanda head" pattern in the pulu-pulu drawing, abound in Wauja art, along with a wealth of mythological figures and supernatural beings.

On Friday, March 11, Emilienne Ireland will present *Artistic Expression in an Amazonian Culture*, a discussion of artistic creativity in everyday life among the Wauja. Ireland is currently completing her doctoral thesis at Yale University on Wauja political organization.

The program will take place at 7:00 p.m. in the Kaufmann Theater. Tickets are \$7 for Members and \$10 for non-Members. Use the February Members' programs coupon on page 3 to register.



Members' Workshop on

## Japanese Cuisine

Sunday, March 6  
11:00 a.m.-12:30 p.m. and 2:00-3:30 p.m.  
\$20, and open only to Participating and Higher Members  
Appropriate for ages 16 and up



Pat Kinney

Members will say *oishii desu* ("tastes delicious") at a special workshop in which Japanese culinary traditions and their relations to folklore are explored. They'll also take a look at Japanese dining and tea-drinking etiquette and pick up a few tips on eating with chopsticks.

Host Pat Kinney will introduce several ingredients typical to Japanese cuisine and offer tastings. Garnishes and flavorings such as shoga (pickled ginger) and *ao nori* (a sea vegetable) will be sampled. Participants will learn about azuki, the red beans that are sweetened and used in con-

fections, and kombu, a form of seaweed that's the basic ingredient of Japanese soup and stock. Kombu is also prepared as a vegetable or made into salted or sweetened snacks.

Kinney will explain what each ingredient is and how it is used in preparing many of the foods that Americans enjoy in Japanese restaurants. After tasting an assortment of Japanese dishes participants will try to identify which ingredients were used in them.

Host and producer of *West Meets East* on Vision Cable in New Jersey, Pat Kinney has worked closely with the Japanese community in Greater New York for a dozen years. She has produced a series of television interviews in Japan for Fuji/Sankei and has taught Japanese cooking at the New School, Bloomingdale's, and King's Cooking Studies. Kinney writes a regular column for Bergen's *The Record*, "Neighbors from Japan," on Japanese culture in the New York area. This column also appears in *Jomo Shimbun* in Japan.

The 90 minute presentation will take place in the Edith C. Blum Lecture Room. Use the coupon below to register, and please note that tickets are available only by mail.

**Membership Workshops and Tours.** Use this coupon to register for *A Saturday with the Sharks and Workshops on Earth History*. Indicate a first and second choice of times for *Mouse in the Matzoh Factory*, *Ecology of North America*, and *Japanese Cuisine*.

Name(s) of program(s): \_\_\_\_\_

Number of tickets and price (please indicate which program if more than one): \_\_\_\_\_

Total amount enclosed: \_\_\_\_\_

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Daytime telephone: \_\_\_\_\_

Membership category: \_\_\_\_\_

Please make check payable to the American Museum of Natural History and mail with a **self-addressed, stamped envelope** to: Workshops and Tours, Membership Office, American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192.



## The Accelerating Global Crisis: Meeting the Challenges

Tuesdays, February 15 and 22  
7:30 p.m.  
Main Auditorium  
Free

Urban and cultural global challenges and solutions are discussed by prominent scholars, commentators, and educators in a series of public forums. Moderator for both panels will be James J. Shields, Jr., professor and director of the Japan Initiative. This series is presented by the Education Department in Association with the Japan Initiative/City College of the City University of New York.

For free tickets send a self-addressed, stamped envelope and your request to: Multicultural Outreach Programs, Education Department, American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192. Be sure to indicate the number of tickets and the program dates.

For additional information call (212) 769-5315.

### Understanding the Global Crisis: The Role of Ethnicity, Religion, and Nationalism Tuesday, February 15

Benjamin R. Barber is Whitman Professor of Political Science, Rutgers University, and author of *An Aristocracy of Everyone* (1992) and *The Congress of Politics* (1988). He will discuss the two axial principles of our age, globalization and tribalism, and the ways in which they are in conflict and pose a serious threat to democracy.

Panelists: Emiko Ohnuki-Tierney is William F. Vilas Professor of Anthropology, University of Wisconsin, and a visiting professor at the Center for Study of World Religions at Harvard University. Martin Espada is a recipient of the PEN/Revson Foundation Fellowship for his poetry collection *Rebellion Is the Circle of a Lover's Hands*.

ent of the PEN/Revson Foundation Fellowship for his poetry collection *Rebellion Is the Circle of a Lover's Hands*.

### Global Renewal: The Search East and West for Philosophical and Spiritual Vision Tuesday, February 22

Author Hortense Calisher is a former president of both the American Academy and Institute of Arts and Letters and of the PEN American Center. Her work examines many of the issues and questions around which this series is centered.

Panelists include Maxine Greene, William F. Russell Professor Emeritus at Columbia University, who is one of the world's foremost philosophers of education.



Benjamin R. Barber will speak on February 15

## An Educational Spring



Robert Pollack, author of *Signs of Life*, lectures on February 24

This month the Education Department will begin a series of lectures, field trips, and workshops that take place throughout the spring. Use the coupon on page 7 to register for the following programs, and for additional information call (212) 769-5310.

### Mustang: The Opening of a Forbidden Himalayan Kingdom

North of the great ice ranges of the Himalayas lies the remote kingdom of Mustang, one of the last of Nepal's semi-autonomous

principalities. A sanctuary of Tibetan culture, Mustang preserves an ancient way of life ravaged elsewhere by modernization and the Chinese occupation of Tibet.

In a lecture illustrated with slides, Edwin Bernbaum, a mountaineer and scholar of comparative literature and mythology, recounts his recent journey to Mustang, on which he led one of the first groups allowed into the forbidden kingdom. Bernbaum examines problems facing the kingdom, including preservation of a unique culture and environment and the ways in which such efforts may serve as a model for other isolated

places. Monday March 7, 7:00-8:30 p.m. \$13.50 for Members, \$15 for non-Members.

### Volcanoes: Their Eruptions and Emanations

Volcanic eruptions are spectacular, vivid signs of our dynamic earth. Sidney Horenstein, coordinator of environmental public programs, will use slides and videotapes to illustrate why eruptions occur; the variety, origin, and distribution of volcanoes; and their effect on the history of life and the evolution of the earth's atmosphere. Mondays, March 7 and 14, 7:00-8:30 p.m. \$22.50 for Members, \$25 for non-Members.

### Evolution Follies: A Darwinian Entertainment

What was the "hidden agenda" of the Beagle's captain during Darwin's voyage? Why did the Sioux Indians help evolutionists gather dinosaur bones in the midst of a war? How did Thomas Huxley get arrested for "running a disorderly house"?

Anthropologist, historian of science, lyricist, and senior editor of *Natural History* magazine, Richard Milner mixes little-known anecdotes about Victorian scientists with creative songs about Darwin, Huxley, and evolution. The program offers a witty and unorthodox view of nineteenth-century natural history based on *The Encyclopedia of Evolution: Humanity's Search for Its Origins*, Milner's book. Thursday, April 7, 7:00-8:30 p.m. \$13.50 for Members, \$15 for non-Members.

### Ancestors: The Search for Our Human Origins

Paleoanthropologist Donald Johanson offers a behind-the-scenes look at his new television series *Ancestors: The Search for Our Human Origins*. Author of the controversial bestseller *Lucy: The Beginnings of Humankind*, he will highlight elements from the series, which is a special television event celebrating the twenty-fifth anniversary of the acclaimed science series NOVA. Monday, February 14, 7:00-8:30 p.m. \$22.50 for Members, \$25 for non-Members.

### Signs of Life: The Language and Meanings of DNA

Robert Pollack, a prize-winning biologist, offers a fresh look at nature's most wondrous chemical, DNA. This perspective is taken from the intersection of molecular biology with semiotics in the reading of DNA as texts. Thursday, February 24, 7:00-8:30 p.m. \$22.50 for Members, \$25 for non-Members.

### Native New Yorkers

This series examines Native American life from prehistoric times through the colonial period and into the modern era. It will focus on the effects of European colonization on Indian people in the New York area during the seventeenth century. The series is presented by Robert S. Grumet, ethnologist and archeologist, Mid-Atlantic Region of the National Park Service. Four Monday

evenings, starting February 28, 7:30-9:00 p.m. \$31.50 for Members, \$35 for non-Members.

### Tropical Rain Forest Conservation in Madagascar: The Making of a National Park

Ranomafana National Park, located in southeastern Madagascar, was created with the intention of integrating conservation and development. Patricia C. Wright, associate professor in the anthropology department at SUNY Stony Brook, will discuss her role in the park's establishment, her work in the rain forest with lemurs, and other scientific efforts such as beekeeping, biodiversity studies of rice paddies, and conservation education. Thursday, March 3, 7:00-8:30 p.m. \$13.50 for Members, \$15 for non-Members.

### Forests of North America

Centering on superb exhibits in the Hall of North American Forests, this series will examine the plants of North American old-growth forests together with those of the prevalent younger growth. Temperate rain forests, mountain and lowland forests of pine, spruce-fir forests, deciduous forests, and swamps are among the areas to be explored. Slide-illustrated lectures followed by visits to the exhibits will stress identification and ecology. Four Monday afternoons, February 28-March 21, 2:30-4:00 p.m., or four

(continued on page 7)



## An Educational Spring

continued from page 6)

Thursday evenings, February 24-March 17, 7:00-8:30 p.m. \$31.50 for Members, \$35 for non-Members.

### Field Trips and Adult Workshops

#### Animal Drawing

After the Museum has closed to the public, students will gather to draw animals from the famed habitat groups as well as individual mounted specimens. Stephen C. Quinn, naturalist and assistant manager in the Exhibition Department, discusses drawing technique, animal anatomy, the role of the artist at the Museum, field sketches, and how exhibits are made. **Eight Tuesdays, March 1-April 19, 7:00-9:00 p.m. \$105 (no discount for Members). Materials not included; limited to 25 people.**

#### Walking Tour: Spring Flowers and Trees in Central Park

Participants on a two-hour morning walk in Central Park observe botanical signs of spring. They'll learn about plant identification and ecology from William Schiller, lecturer in botany for the Education Department. **Saturdays, April 23 or 30, or Wednesday, May 4, 9:00-11:00 a.m. \$15 per walk (no discount for Members). Limited to 25 people.**

#### Weekend for Bird Enthusiasts

Participants on this two-day trip take a bus to wooded

areas near New York City and the Pine Barrens of New Jersey. The group is accommodated overnight near Toms River. The tour continues to Brigantine National Wildlife Refuge, where many marsh birds as well as woodland species can be seen. This trip is led by Jay Pitocchelli, research associate in the Department of Ornithology and professor of biology at Saint Anselm College. Call (212) 769-5310 for the itinerary and application. **Saturday and Sunday, May 14 and 15. \$175 (double occupancy; no discount for Members). Limited to 36 adults.**

#### Weekend Whale Watch off Cape Cod

Spend a weekend whale watching off the rich feeding grounds of Stellwagen Bank, near Cape Cod, where several species of whales are commonly seen at close range. Our search for these magnificent creatures involves three 4-hour private charter cruises from Provincetown. In addition to the marine biologists aboard the boat, two Museum staff members will accompany the group: Brad Burnham, senior instructor in natural science in the Education Department, and naturalist Stephen C. Quinn, who will assist in identifying the many species of coastal birds. Call (212) 769-5310 for the itinerary and application. **Friday-Sunday, May 20-22. \$400 (double occupancy; no discount for Members). Limited to 45 adults.**

#### Lecture Series

I enclose a stamped self-addressed envelope together with a check (or money order) payable to the American Museum of Natural History for:

\$ \_\_\_\_\_  
Advance registration is requested, but registration will be accepted on the opening night if the course is not filled (please call in advance). Registration will be delayed if daytime telephone number and stamped, self-addressed envelope are not included. For further information call (212) 769-5310. Please print.

Course	No. tickets	Price/ticket	Total
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Course	No. tickets	Price/ticket	Total
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Course	No. tickets	Price/ticket	Total
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Course	No. tickets	Price/ticket	Total
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Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Daytime telephone: \_\_\_\_\_

Please make check payable to the American Museum of Natural History and mail with a **stamped, self-addressed envelope to: Lecture Series, Education Department, American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192.**

## Shaman Ritual

### Practice, Performance, and Metaphor

Korean shamans are ritual specialists who contact the gods and ancestors on behalf of human clients. Through drama, dance, song, and mime, shamans invoke the spirits to address all manner of problems.

This conference and performance examine the Korean shaman's world from several perspectives: shamans in contemporary life; what it means to become a shaman; the work shamans perform on behalf of the community; shaman rituals in sacred and secular settings; and the influence of shaman ritual on traditional and contemporary arts.

The American Museum presents these programs in association with the Asia Society's Festival of Korea. The conference events on Saturday, February 26, will be held at the American Museum and those on Sunday, February 27, at the Asia Society, which is located at 725 Park Avenue at 70th Street. The kosa blessing ceremony on Saturday is free and no tickets are necessary. Conference tickets are \$12 for Members of the American Museum and the Asia Society and \$15 for non-Members. For additional information call the Education Department at (212) 769-5315 or the Asia Society at (212) 517-ASIA. All tickets can be purchased by calling the Asia Society. Tickets for the Chindo Sikkim Kut must be purchased separately through the Asia Society.

#### Chindo Sikkim Kut: A Korean Shaman Ritual

A group of shamans from Chindo Island will perform a southern Korean shaman ritual in the Asia Society's Lila Acheson Wallace Auditorium. Performances will take place on Friday, February 25,

and Saturday, February 26, at 8:00 p.m., and at 7:00 p.m. on Sunday, February 27. Tickets for the Chindo Sikkim Kut performance at the Asia Society are \$16 for conference attendees and Members of the American Museum and the Asia Society, and \$20 for the general public.

#### Saturday, February 26

##### A Korean Kosa Blessing: A Gathering of Cultures Hall of Ocean Life 1:00 p.m.

For the opening ceremony of the conference *Shaman Ritual: Practice, Performance, and Metaphor*, a Korean shaman group from Chindo Island will execute a kosa ritual blessing on behalf of the households of the American Museum and the Asia Society. They are joined in this ceremonial opening by two other groups. Chief Leon Shenandoah of the Iroquois Confederacy and people from the Onondaga Nation will drum and chant a ceremonial greeting. Felipe Garcia Villamil's Afro-Cuban group Emikeke will present an Afro-Cuban ceremonial ritual derived from the Yoruba to an orisha known as Yemaja (goddess of the sea), and Palo Mayumbe, a ritual of Congo origin. This presentation will set the framework for the conference discussion.

**Panel Discussion: Context for a Shaman Ritual.** Participants in the opening ceremonies and scholars discuss the role of the shaman in the ceremonial lives of Koreans, Cubans, Haitians, and Native Americans. The panel discussion will take place in the Kaufmann Theater at 2:45 p.m.



Shaman Sook-Ja Chung

#### An Initiation Kut for a Korean Shaman

This compelling video offers an intimate portrait of the process of becoming a shaman. Anthropologist Laurel Kendall, co-producer of the film, will introduce it and lead a discussion after the screening. The film, which is 35 minutes long, will be shown at 4:30 p.m. in the Kaufmann Theater.

#### Sunday, February 27

11:00 a.m. Opening Performance.

11:15 a.m.-12:30 p.m. *The Elements of the Chindo Sikkim Kut.* Through demonstration and video Theresa Ki-ja Kim and members of the Korean shaman group will explain the symbolism of the Korean kut or shaman ceremony.

12:30-2:00 p.m. **Lunch/Video Program.** Several videos portray how performing artists are influenced by shamanic practices.

2:15 p.m. *A Salp'uri Dance.* Sun Ock Lee performs the Korean dance *Salp'uri*, a theatrical piece infused with elements from shaman ritual.

2:45 p.m. **Panel Discussion: Extensions and Metaphors.** The influence of shamanic practice on contemporary arts.

## Global Cultures in a Changing World

### Charles A. Dana Education Wing

The Education Department offers public programs that celebrate diverse cultural groups and their traditions. Lectures, films, demonstrations of music and dance, workshops, and performances are featured. These programs will address cultural misconceptions and biases, relations between adults and youth in a changing world, and the preservation and change of cultural traditions.

Special programs will be presented in conjunction with New York City events, including Black History Month.

Festival of Korea, Women's History Month, and Asian/Pacific American Heritage Month.

For a brochure listing specific programs through May, call the Multicultural Outreach Office at (212) 769-5315.

The programs presented by the Education Department are made possible by the gifts of the Lila Acheson Wallace Fund at the New York Community Trust, Henry Kissel Foundation, Inc., the Laventure-Corner House, the Villa Foundation, Maricano Foundation, Samuel and May Rudin Foundation, William Randolph Hearst Foundation, Howard Hughes Medical Institute, S.H. and Helen R. Schreyer Family Foundation, Inc., Norman and Route Winston Foundation, Chase Manhattan Bank, Citicorp/Citibank, Chemical Bank, New York State Council on the Arts, Edward S. Moore Foundation, Inc., and the family of Frederick H. Loeferhard.

The Global Crisis programs are supported by contributions to the Japan Initiative/City College of the City University of New York with funds from the Japan Foundation Center for Global Partnership and promotional support provided by US News & World Report.

The Asia Society's Festival of Korea is sponsored by Philip Morris Companies, Inc. It is also supported by grants from the Korea Foundation, the Federation of Korean Industries, the Korean Foreign Trade Association, the Korea Chamber of Commerce and Industry, and Hyundai.



# A New Accord

**An agreement between the Museum, the Mexican government, and ranchers protects an endangered species of tortoise and 45,000 acres of prime grassland**

Ranchers in Chihuahua, Mexico, have come to an extraordinary agreement with scientists at the American Museum, Mexico's Instituto de Ecología, and the California State University at Dominguez Hills that will preserve 45,000 acres of grassland for the protection of an endangered species of tortoise. The initiative will both save North America's largest land turtle, the Bolson tortoise, from extinction and preserve one of the best remaining tracts of Chihuahuan desert grassland in North America. The Bolson tortoise shares this pristine habitat with golden eagles and cougars, and the reintroduction of the pronghorn antelope is under discussion.

Human encroachment and habitat destruction threaten turtles and tortoises around the world with irreversible population declines and, in some cases, extinction. In 1991 the Turtle Recovery Program, a project of the American Museum of Natural History's Center for Biodiversity and Conservation, identified 80 priorities in the area of global turtle conservation. The Bolson tortoise (*Gopherus flavomarginatus*) was one of the highest on the list.

"It is rare in conservation that one is able to ensure the preservation of a species in a single effort," says Michael Klemens, director of special projects at the Museum's Center for Biodiversity and Conservation. "It is gratifying that the Museum played such an integral role in bringing this project to its fruition."

The combined pressures of human consumption, cattle grazing, habitat fragmentation, and agricultural activities threaten the Bolson tortoise with imminent extinction. These large, burrowing tortoises once ranged throughout the grasslands of the Chihuahuan desert from northern Mexico into the southwestern United States. Currently, it is estimated that fewer than 10,000 adult Bolson tortoises remain in the wild, restricted to isolated areas of northern Mexico.

In 1992 a team of Mexican and US scientists, who were assembled and funded by the American Museum's Turtle Recovery Program, began an evaluation of the genetic differentiation of the Bolson tortoise in different regions of

Chihuahua. The scientists found that the most robust populations of this tortoise dwell on Rancho Sombreretillo, a large, privately owned cattle ranch. The Turtle Recovery Program commissioned a subsequent study to determine the feasibility and methods for protecting this area as a reserve dedicated to tortoise conservation.

The survey of Rancho Sombreretillo revealed that it supports the best desert grassland in Chihuahua because of its low-intensity cattle grazing conducted for over a century under a single family ownership. The area provides forage for approximately one third of the world's population of Bolson tortoises. The ranch is protected by 80 kilometers of fencing, and its remote location and a small human population further enhance its suitability as a preserve.

The agreement to preserve the entire 45,000-acre Rancho Sombreretillo resulted from negotiations between the ranch's owners and the project's scientists to develop a structured program of tortoise protection compatible with cattle ranching. The cooperative plan, which balances the agricultural forage value of the land with its ecological importance, calls for rotational grazing to minimize the impact of cattle upon young tortoises and to allow for the complete growth cycle of the grasslands during the July-to-September wet season. The system will serve as a model of grassland management that could ultimately rejuvenate some of the denuded land adjacent to Rancho Sombreretillo and areas of the southwestern United States.

The final arrangement between the owners of the ranch, Mexico's Instituto de Ecología, the American Museum, and Fundación Chihuahuense de la Fauna will provide the services of a part-time warden who will guard against poachers, continue access to the area for conservation biologists, and establish of an education and outreach program for the community. Because poaching for human consumption is a major threat to the Bolson tortoise's survival, the education program will promote awareness of the vulnerability of the species and its local importance as a

Much of the once-lush grassland in Chihuahua, Mexico, is denuded from overgrazing by cattle. The endangered Bolson tortoise (below), North America's largest land turtle, will find refuge in a newly created preserve.



Michael Klemens



Michael Klemens

keystone species of the Chihuahuan grasslands.

"Successful Bolson tortoise conservation policies were developed in Mexico in the late 1970s and the hope was that new conservation programs be developed," said Gustavo Aguirre, researcher

at the Instituto de Ecología and fellow of the Mexican National Researchers System. "The Sombreretillo program expands on the original projects and it's a good example of successful international collaboration."

The Bolson tortoise reserve

reflects the current environmental view that conservation efforts should focus on preserving entire ecosystems rather than a single species. This plan will save not only the Bolson tortoise but also an ecosystem upon which many other creatures depend.

## Children's Preview of the New Hall of Early Mammals

Children registering for the Education Department workshop *From Bone to Stone* will take a sneak peek at the soon-to-be-opened Hall of Early Mammals.

The workshop, which is

geared toward children in grades 3 and 4, will take place on Saturday, April 23, from 10:30 a.m. to 1:30 p.m. Participants will explore the past life on earth of early mammals and sculpt their

own clay fossils under the direction of Angela Tripi-Weiss, art director at New York City Public School 87.

On Sunday, March 20, workshop participants will preview the new hall from

10:30 to 11:30 a.m. Angela Tripi-Weiss will accompany children on the tour.

Tickets for the preview and workshop are \$25. For registration information call (212) 769-5310.



# Shark Surprise

Members' Birthday Parties at the Museum



Before there were dinosaurs, there were sharks. And before *Jaws*, there was the monster shark *Carcharodon megalodon*, three times the size of the great white. In conjunction with the special exhibition *Sharks! Fact and Fantasy*, the Membership Office is throwing a special birthday party devoted to these living fossils.

Young Members between the ages of 5 and 10 can invite their friends to a partying frenzy among some of their favorite sharks. They'll learn what these amazing creatures like and don't like, how they swim, and how they use their superior senses. Crafts and shark-style games will add to the fun before the party-goers sink their jaws

into ice cream and cake.

In addition to the shark parties there are live other kinds of parties focusing on dinosaurs, African mammals, reptiles and amphibians, ocean dwellers, and Native Americans of the Great Plains.

The parties are two hours long and held at 3:30 p.m. on Wednesdays, at 4:00 p.m.

on Fridays, and at 11:00 a.m. or 2:30 p.m. on weekends. The group should be no fewer than 10 and no more than 20. The fee is \$275 plus \$15 per child and covers all materials, juice, ice cream, favor bags, and the services of a Museum party coordinator. The coordinator will help you plan a party that suits your child's needs and tastes,

and on the day of the party, she'll handle everything from candles to party favors. All you need to do is bring the cake and help escort your child's guests.

Shark parties are available only for the duration of the temporary exhibition, from February through April. For more information about the parties, call (212) 769-5542.

## Members' Preview of *Sharks! Fact and Fantasy*

Thursday, February 3  
Gallery 3 viewing: 4:00-7:00 p.m.  
Free, and open only to Participating and Higher Members  
Naturemax viewing: 7:30 p.m.  
\$6, and open to all Members

Myths and misconceptions are laid to rest in the new exhibition *Sharks! Fact and Fantasy*. Members can preview the intriguing exhibition on Thursday, February 3, between 4:00 and 7:00 p.m. (The exhibition will open to the general public on February 4.) Volunteer Highlights Tour guides will be on hand at the preview to offer additional insights. No tickets are

necessary; your valid membership card is your ticket of admission.

On the evening of the preview Members can enjoy a private viewing of the new Naturemax film *Search for the Great Sharks*. Noted shark authorities Eugenie Clark and Rodney Fox lead viewers on an oceanic expedition from California to the remote reaches of Australia.

Audiences observe some of the world's largest sharks at close range, including the 40-foot whale shark, witness the birth of a baby shark, and follow a diver inside a transparent tube that's surrounded by sharks.

The film will begin at 7:30 p.m. in the Naturemax Theater. Tickets are \$6; use the February Members' programs coupon on page 3 to register.

## Members' Tours

### Sharks!

Friday, March 4  
4:00, 5:00, 6:00, and 7:00 p.m.  
Free, and open only to Participating and Higher Members

The new Gallery 3 exhibition offers a comprehensive view of sharks and shark behavior, and Members can take guided tours of *Sharks! Fact and Fantasy* to see how remarkably unique and diverse these animals are.

Volunteer Highlights Tour Guides will lead participants through a re-creation of an underwater habitat, complete with life-size models that dramatically illustrate the variety of body size and form among species. The guides will dis-

cuss aspects of shark morphology and behavior as well as the relationship between sharks and people, the role of sharks in myth and folklore, the commercial and scientific uses of sharks, and shark attacks and attack prevention. The tours will also take a look at the sharks on display in the Museum's permanent collections.

The tours will last about 45 minutes. Use the February Members' programs coupon on page 3 to register.

## Members' Family Event

### A Saturday with the Sharks

Saturday, February 5  
9:00 a.m.-1:00 p.m.  
\$10, and open only to Participating and Higher Members

*Sharks! Fact and Fantasy* is full of absorbing details about shark biology and behavior (see the related article on page 1). Members can spend Saturday, February 5, among the sharks, starting with a private viewing of the new exhibition between 9:00 and 10:00 a.m. Volunteer Highlights Tour guides will lead mini-tours and answer

questions.

At 10:30 a.m. participants can attend a screening of *Sharks*, a 60-minute film that combines science and adventure. They'll see researchers experimenting with the cartilage of sharks in an attempt to find a treatment for cancer, footage of a live birth of lemon sharks, and the risky task of testing a new shark repellent in open water.

After the film, stop by the special display in the theater lobby and take a look at some shark specimens from the Museum's collections. Norma Feinberg, senior scientific assistant in the Department of Herpetology and Ichthyology, will be on hand from 11:30 a.m. to 2:00 p.m. to talk about the specimens and answer questions. Items on display include jaws from great white and tiger sharks, alcohol-preserved specimens of a deep-water shark, the

head of a mako shark, and others.

Drop in any time between 11:30 a.m. and 1:00 p.m. on a crafty workshop with June Myles to explore the incredible variety of shark design. Some sharks are short and some are fat; others are skinny and some of them are flat. They're gray, blue, brown, spotted, and striped. One even wears a fringe on its head. Participants will create and take home a model of their favorite species.

In addition, families can go on a self-guided shark hunt. All hunters will receive a packet of shark facts that includes puzzles, games, and clues to help them locate sharks and shark artifacts around the Museum, and they'll be rewarded with a shark prize.

Use the coupon on page 5 to register.

## Fascinating Fossils

Friday, February 25  
7:00 p.m.  
Kaufmann Theater  
Free for Members, \$8 for non-Members

John Maisey, curator in the Department of Vertebrate Paleontology and resident curator for *Sharks! Fact and Fantasy*, will explain the difference between sharks and other bony fishes and discuss the fossil history of sharks at the Members' program *Fascinating Fossils*.

He will focus on three or four different extinct shark species and illustrate their evolution. He'll talk about how scientists can use fossils

to determine a variety of an animal's characteristics and behaviors, including its feeding habits. Maisey has worked extensively with fossil fishes from the Sanatana Formation of central Brazil, which dates from the early Cretaceous period. He'll describe how the evaluation of the fishes' stomach contents can reveal significant details of ancient lifestyles.

Use the coupon on page 3 to register.



## Member-Get-a-Member

What could be better than sharing the benefits and privileges of Participating membership with friends and relatives?

Use this form to recommend friends or relatives for Museum membership, and we'll send them information and an application. When someone you recommend for membership becomes a Participating Member of the Museum, we'll thank you with a \$10 coupon to apply toward your next Participating membership renewal. This form must be used to qualify for the \$10 coupon.

Membership Services, American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192.

These folks may be interested in Participating membership:

1. Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

2. Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

My name is: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

TZMG

## Ice Fishing

at Blue Mountain Lodge in Peekskill, New York

Saturday, February 12

9:00 a.m.-5:00 p.m.

\$60, and open only to Participating and Higher Members

Love to fish? Love the cold weather? Try ice fishing! Join Friends of Fishes, curators from the Department of Ichthyology, and members of the Hudson River Foundation for a spectacular day of nature walks, ice fishing, and a gourmet catered lunch — in the lodge or on the lake, the choice is yours.

Bring warm clothes, a love for the brisk outdoors, and a hearty appetite. Those who brave the ice can bring their catch back to where the less bold will be keeping warm, waiting comfortably in front of the lodge's big old-fashioned fireplace. Lunch will

include fish, salads, side dishes, dessert, and coffee.

Tickets are \$60 per person and include lunch and round-trip bus transportation from the Museum to Blue Mountain Lodge. For further information call (212) 289-3605 or fax (212) 360-6625. To register, make your check payable to the American Museum of Natural History and mail with a self-addressed, stamped envelope to *Ice Fishing*, Friends of Fishes, Department of Ichthyology, American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192.

## Family Mediterranean Discovery Cruise

From June 30 to July 14, Discovery Cruises offers an in-depth look at ancient civilizations of the Mediterranean, including sites in Italy, the Greek Isles, and Turkey. Ports of call include Venice, Santorini, Mykonos, Crete, Rhodes, Ephesus, Istanbul, Athens, and Olympia. Participants will walk along narrow cobblestone lanes lined with pastel houses, visit castles and cathedrals, and explore ancient ruined cities and temples, museums and mosques.

The program is designed especially for families and

takes into consideration the diversity of interests and special needs of family travel. Hands-on activities and lecture programs for both children and adults will complement experiences among the natural wonders and fascinating cultures of this beautiful region.

The cruise will be aboard the 174-cabin *Daphne*, and special rates are available to encourage families to travel together. For further information, call Discovery Cruises/Tours at (800) 462-8687 or in New York State, (212) 769-5700.

# Discover

## Explore our Naturemax Dinner Theater Package

See our latest features:

### Shark and To The Limit

Includes a complete dinner entree, appetizer or dessert and coffee per person **\$21<sup>00</sup>**

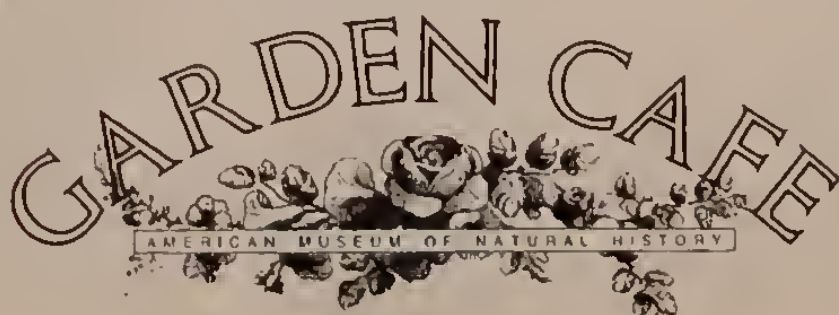
### Hours

Lunch, Mon.- Fri: 11:30 - 3:30

Saturday and Sunday Brunch: 11:00 - 4:00

Dinner seating, Fri.- Sat: 5:00 - 7:30

For Reservations call 212-769-5865



## Current Exhibitions

### Waurá

A selection of drawings by the Waurá Indians of Brazil's Upper Xingu River region is on display in the Akeley Gallery. Geometric designs, anthropomorphic figures, and mythological or supernatural beings are among the drawings' themes, along with animal images such as tapirs, monkeys, bats, and snakes. The exhibition will be on display through April 24.

### Librarian's Choice

An exhibit of rarities from the Museum Library's extensive collections is on display in the Library Gallery. *Librarian's Choice: Treasures from 124 Years of Collecting* features items from the

Rare Book, Photographic, Film, Art, and Archives collections. The gallery is located on the fourth floor.

### The Barosaurus

The world's tallest free-standing dinosaur exhibit, a five-story-high *Barosaurus*, is on display on the second floor of the Roosevelt Memorial Hall.

The Museum houses the world's largest and most comprehensive collection of fossil vertebrates, and work on a new exhibition area is under way on the fourth floor. The halls of Earth History, Late and Early Mammals, and Late and Early Dinosaurs are closed for renovations. The first of the new halls will open later this year.







**Sun** **Mon** **Tue** **Wed** **Thu** **Fri** **Sat**

**February 1994**

**American Museum of Natural History**



**1 7:00 p.m.** *In Celebration of the Chinese New Year: Traditional Shadow Theater.* Members' family program. Kaufmann Theater. \$7 for Members. \$10 for non-Members. Page 2.

**2 7:45 p.m.** *Astronomers Association.* Kaufmann Theater. Free.

**3 4:00-7:00 p.m.** *Members' preview of Sharks! Fact and Fantasy.* Gallery 3. Free, and open only to Participating and Higher Members. Page 9.

**4 Sharks! Fact and Fantasy** opens in Gallery 3. Page 1.

**5 Members' Saturday with the Sharks.** Page 9.

Weekends in the Leonhardt People Center from 1:00 to 4:30 p.m.: *Global Cultures in a Changing World.* Call (212) 769-5315 for further information.

**8 7:00 p.m.** *Saving Grace at Angkor Wat.* Members' evening program. Kaufmann Theater. \$6 for Members. \$9 for non-Members. Page 2.

**9 6:30 p.m.** *New York Mineralogical Club.* Room 319. Free.

**10**

**11**

**12** Lincoln's birthday. The Museum is open. **9:00 a.m.-5:00 p.m.** *Ice Fishing at Blue Mountain Lodge.* Page 10.

**13 2:00 p.m.** *New York Shell Club.* Room 319. Free.

**14 7:00 p.m.** *Ancestors: The Search for Our Human Origins.* \$22.50 for Members. \$25 for non-Members. Call (212) 769-5310 for further information.

**15 7:00 p.m.** *New York Entomological Society.* Room 319. Free.

**16 5:30-7:30 p.m.** *Members' Workshop on Earth History, part 1.* \$40, and open only to Participating and Higher Members. Tickets required. Page 2.

**17 7:00 p.m.** *A Society of Wolves.* Members' evening program. Kaufmann Theater. \$8 for Members. \$11 for non-Members. Page 2.

**18**



**20 10:30 a.m.** *Turtle and Tortoise Society.* Room 319. Free.

**21** Washington's birthday observed. The Museum is open.

**22 7:30 p.m.** *Global Search East and West for Philosophical and Spiritual Vision.* Main Auditorium. Free. Page 6.

**23 5:30-7:30 p.m.** *Members' Workshop on Earth History, part 2.* \$40, and open only to Participating and Higher Members. Tickets required. Page 2.

**24 6:30 p.m.** *Reptiles and Amphibians of the Metropolitan Region: Threats — Causes and Solutions.* Speaker: Michael Klemens, director of special projects, Center for Biodiversity, AMNH. Linder Theater. Free. For further information call (212) 769-5750.

**25 7:00 p.m.** *Fascinating Fossils.* Members' evening program. Kaufmann Theater. Free for Members. \$8 for non-Members. Page 9.

**26 1:00 p.m.** *Shaman Ritual: Practice, Performance, and Metaphor.* Page 7.

**Too Much Mail?**

The Membership Office recently mailed a letter to prospective Members asking them to join the Museum. In spite of our best efforts to remove the names of our current Members from this mailing, you may have received one of these letters. Please accept our apology. Would you consider passing the letter on to a friend? Your help in reaching new Members is greatly appreciated.

**27 9:30 a.m.-3:30 p.m.** *Members' Day Trip to Ellis Island.* \$25, and open only to Participating and Higher Members. Tickets required. Page 2.

**28 7:00 p.m.** *Native New Yorkers.* Page 6.





# POTUNDA

Vol. 19, No. 3 March 1994

For Participating and Higher Members of the American Museum of Natural History

## A Night Out with the Neandertals

Thursday, March 10  
7:00 p.m.  
Main Auditorium  
\$10 for Members,  
\$15 for non-Members



The European and Near Eastern Neandertals are the best and longest known of the premodern humans, and theirs is a primary role in the study of modern human origins. Anthropologist Erik Trinkaus believes that at least one variant of the Neandertal strain may have shared some of its genes with anatomically modern human beings and that some or all of us today may be closer kin to Neandertals than most people realize.

At *A Night Out with the Neandertals* Trinkaus will review current images of the Neandertals, the history of ideas regarding their role in modern human origins, and their ancestor-descendant relationship to us. He'll focus on the current understanding of who the Neandertals were — in terms of appearance, capabilities, and behavior — as reflected by their anatomy, robusticity, stress levels, demography, technology, and social

behavior. Clues from both Neandertal fossils and their associated archeological remains will be discussed, and Trinkaus will show slides of this evidence along with images of the Neandertals through the past century.

Professor and chairman of the Department of Anthropology at the University of New Mexico, Trinkaus has been a research associate of the University of Bordeaux since 1986. He is the author of *The Shanidar*

*Neandertals* (1983), which concerns his work in the restoration and primary description of the Neandertals from Shanidar Cave, Iraq. His most recent publication, *The Neandertals: Changing the Image of Mankind* (1993), which he co-wrote with Pat Shipman, is a gripping story of evolutionary discoveries and debates.

Use the March Members' programs coupon on page 3 to register for the program.



## Members' Tour

# Ecology of North America

Friday, March 18  
4:30 and 6:00 p.m.  
\$16, and open only to Participating and Higher Members  
Appropriate for ages 16 and up

Join geologist Sidney Horenstein for a trip around North America that will view some of the continent's major ecological systems in their natural and undisturbed settings. The tour will look at Museum dioramas and participants will learn how these regions were altered by human contact.

Horenstein, who is the Museum's coordinator of environmental public programs, will lead participants through several of the Museum's exhibition halls, including North American Forests, Mammals, and Birds. He'll discuss regional vegetation and climate and point out how geology is a factor in habitats.

Use the coupon on page 5 to register, and please note that tickets are available only by mail and that the 3:00 tour has been cancelled.



AMNH 322624

## The World of Animals

Saturday, March 5  
11:30 a.m. and 1:30 p.m.  
Kaufmann Theater.  
\$5 for Members, \$8 for non-Members  
Appropriate for ages 5 through adult

Members will see a live 5-foot-long iguana in the Kaufmann Theater and learn how wild iguanas are helping to restore the rain forests in Colombia and Costa Rica. Naturalist Bill Robinson will bring some of his wild friends to the Museum to discuss their roles in nature and offer live demonstrations of their adaptations for survival.

Robinson will explain some of the many ways in which animals trick each other to avoid being eaten or to scare up a meal. A brush-tailed porcupine will rub its quills together to make a cobra-like sound that frightens away predators. Another guest, a 110-pound alligator snapping turtle, disguises its tongue as a wriggling worm that lures unsuspecting fish right down its throat.

Among the other animals appearing at the show will be a 3-foot-long African pouch rat, African eagles that will fly around the room, and an enormous python.

Robinson, who presents his dramatic wildlife programs to thousands of schoolchildren each year, has appeared at the Museum for the past 14 years. Please note that all attendees, adults and children alike, must have tickets. Use the March Members' programs coupon on page 3 to register.



AMNH 321040

## Members' Adult-Child Workshop

# The Mouse in the Matzoh Factory

Sunday, March 20  
11:00 a.m.,  
Sold Out;  
space may be  
available at 12:30  
and 2:00 p.m.  
\$16 per couple  
Appropriate  
for ages 5-8



The mouse is back! This month he'll make his fifth annual appearance at the Museum for a special Passover program of songs, laughter, and matzoh making. Author Francine Medoff will read her story *The Mouse in the Matzoh Factory*, and then each child will help her mix the dough for matzoh. Participants will take the dough home with them to bake in their own kitchens.

A former nursery school teacher, Medoff is a working artist and a part-time administrator at the Hebrew School of Temple Beth Israel in Port Washington, New York. The program lasts approximately 45 minutes and is appropriate for children between the ages of 5 and 8. Please note that all attendees must have tickets, which are available only by mail. Members are limited to two tickets per request for this popular show; use the coupon on page 5 to register.

## Invitation to Geology: A Beginners' Guide

Tuesday, March 22, and Thursday, March 24  
7:00 p.m.  
Kaufmann Theater  
\$12 for Members, \$20 for non-Members

Geologist Sidney Horenstein will present a two-part lecture series on our dynamic planet that introduces the basic aspects of geology. By studying the record of past changes written upon the face of the earth, we can not only see the geologic past but also infer what the future may hold.

The lectures will investigate the movement of continents, volcanic activity, and earthquakes. In addition to their disastrous effects, earthquakes are a continuous source of data for analysts of the earth's

interior. Horenstein will describe these and other natural processes such as the wearing down of mountains, the elevation of continents, and the melting of rocks. Long before the phenomena of drifting continents and interacting plates were recognized, geologists were aware of the continuous creation, alteration, and degradation of rocks. Participants will learn about current ideas of how life originated and our place in the universe.

Use the coupon on page 3 to register.

## ROTUNDA

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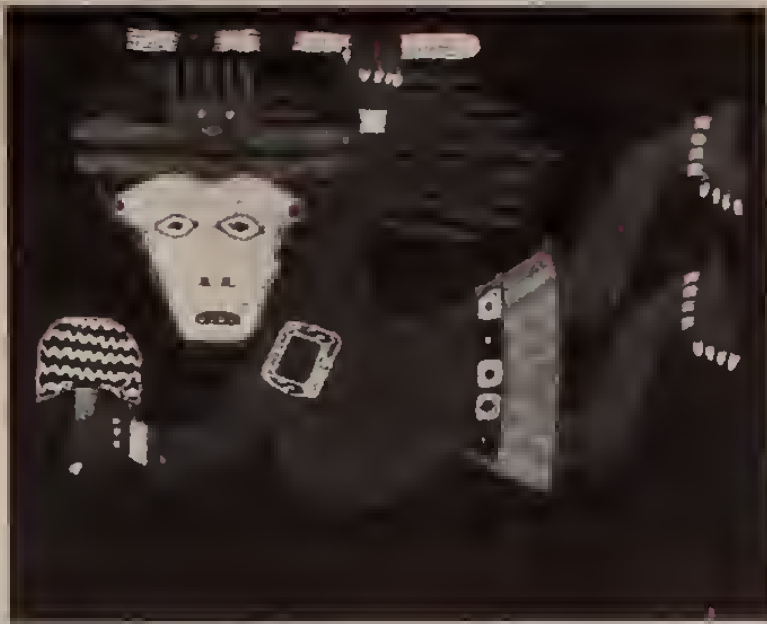
# The Andean Achievement

Friday, April 15  
7:00 p.m.  
Kaufmann Theater  
Free for Members, \$8 for non-Members

Sixteenth-century Europeans encountered a thriving series of cultures in the central Andes. Inca achievements range from the humble potato, a crop that would become a worldwide staple, to a sprawling, 15,500-mile system of roadways. They produced magnificent woven cloth, elaborate ceramics and metalwork, monumental buildings, and early empires rivaling those of the Old World in size and scope.

Craig Morris will talk with Members about his archaeological fieldwork in Peru and the region's stunning array of ancient arts and technology. The Department of Anthropology's curator of South American archeology, Morris has conducted field studies in Peru for more than 20 years. His best known work has been in the Museum's extensive excavations at the Inca administrative center of Huánuco Pampa, located in the central highlands, and the southern coastal region of Chincha.

*The Andean Achievement* will focus on metallurgy, textiles, and architecture. Inca metallurgists employed techniques unknown in sixteenth-century Europe, using sophisticated methods for smelting, casting, joining, and gilding metals. Foremost among the region's arts are



Peruvian cotton topestry

its textiles, unparalleled in their technical virtuosity. Brilliantly colored cloth, with elaborate designs executed in finely spun and tightly woven threads, was produced on a scale remarkable for preindustrial times. Morris will also discuss how archeological information from Chincha and Huánuco suggests ideas about the economic and political workings of the region. He'll illustrate the lecture with slides from the Hall of South American Peoples, which houses the largest collection of Andean objects of any museum in the United States.

This program is presented

in conjunction with the publication of *The Inka Empire and Its Andean Origins*, which Morris co-wrote with Adriana von Hagen. A fascinating illustrated history of the Inca and their predecessors, this story of the Andean people traces the development of their civilization from its beginnings some 11,000 years ago to its culmination in the sixteenth century. The book will be available for purchase at the program, and Morris will sign copies after the lecture.

Use the March Members' programs coupon at right to register for the program.

## Behind-the-Scenes Tours of the

# Department of Mineral Sciences

Wednesday, April 6, and Saturday, April 9  
\$12, and open only to Participating and Higher Members  
Appropriate for ages 13 and up

From humble chunks of local rocks to diamonds from South African mines and meteorites that landed in distant reaches of Antarctica, the Department of Mineral Sciences manages extensive collections. Samples of these minerals, gems, rocks, and meteorites are studied in search of clues to the history of the earth and other planetary bodies.

The collections are actively developed and used for departmental research, and next month Members can take a look behind the scenes in Mineral Sciences. They'll visit collection areas and labs that are never open to the general public to hear about ongoing research projects that are conducted around the world. Scientists from the department will be on hand to describe their work and display specimens they've collected in the field.

The tours last about one hour. Use the coupon at right to register, and please note that tickets are available only by mail.

**Behind-the-Scenes Tours of the Department of Mineral Sciences.** \$12, and open only to Participating and Higher Members. Tours will leave at 15-minute intervals and last about an hour. We will send you confirmation by mail indicating the exact time your tour will start. Please indicate a first, second, and third choice.

\_\_\_ Wednesday, April 6, between 5:00 and 5:45 p.m.

\_\_\_ Wednesday, April 6, between 6:30 and 7:30 p.m.

\_\_\_ Saturday, April 9, between 10:30 and noon

\_\_\_ Saturday, April 9, between 1:15 and 2:30 p.m.

Number of tickets at \$12: \_\_\_

Total amount enclosed for program: \_\_\_

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Daytime telephone: \_\_\_\_\_

Membership category: \_\_\_\_\_

Please make check payable to the American Museum of Natural History and mail with a **self-addressed, stamped envelope** to: *Behind the Scenes*, Membership Office, American Museum of Natural History, Central Park West at 79th Street, New York NY 10024-5192.

# March Members' Programs Coupon

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Daytime telephone: \_\_\_\_\_

Membership category: \_\_\_\_\_

Total amount enclosed: \_\_\_\_\_

Please make check (if applicable) payable to the American Museum of Natural History and mail with a **self-addressed, stamped envelope** to: *March Members' Programs*, Membership Office, American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192. **Telephone reservations are not accepted. No refunds or exchanges.**

**Unless otherwise indicated, no more than eight tickets may be ordered for a program. Participating Members are entitled to four tickets per program at the Members' price, Higher Members are entitled to six tickets, and Associate Members are entitled to one ticket.**

**Members' Tours of Shorks!** Friday, March 4.

Please indicate a first and second choice.

\_\_\_ 5:00 p.m. \_\_\_ 6:00 p.m.

Number of free Members' tickets

(no more than 2, please): \_\_\_

**The World of Animals.** Saturday, March 5.

Please indicate a first and second choice.

\_\_\_ 11:30 a.m. \_\_\_ 1:30 p.m.

Number of Members' tickets at \$5: \_\_\_

Number of additional tickets at \$8: \_\_\_

Total amount enclosed for program: \_\_\_

**A Night Out with the Neandertals**

Thursday, March 10, 7:00 p.m.

Number of Members' tickets at \$10: \_\_\_

Number of additional tickets at \$15: \_\_\_

Total amount enclosed for program: \_\_\_

**Artistic Expression in an Amazonian Culture**

Friday, March 11, 7:00 p.m.

Number of Members' tickets at \$7: \_\_\_

Number of additional tickets at \$10: \_\_\_

Total amount enclosed for program: \_\_\_

**Invitation to Geology**

Tuesday, March 22, and Thursday, March 24, 7:00 p.m.

Number of Members' tickets at \$12: \_\_\_

Number of additional tickets at \$20: \_\_\_

Total amount enclosed for program: \_\_\_

**The Somoritons and Jews of Indio**

Wednesday, March 30, 7:00 p.m.

Number of Members' tickets at \$7: \_\_\_

Number of additional tickets at \$10: \_\_\_

Total amount enclosed for program: \_\_\_

**The Andean Achievement.** Friday, April 15, 7:00 p.m.

Number of free Members' tickets

(no more than 2, please): \_\_\_

Number of additional Members' tickets at \$5: \_\_\_

Number of non-Members' tickets at \$8: \_\_\_

Total amount enclosed for program: \_\_\_

**Rediscovery of the World: An Evening with**

**Jean-Michel Cousteau.** Monday, April 18, 7:00 p.m.

Number of Members' tickets at \$20: \_\_\_

Number of additional tickets at \$25: \_\_\_

Total amount enclosed for program: \_\_\_

**Historic Look at Building Stones (lecture)**

Thursday, April 21, 7:00 p.m.

Number of Members' tickets at \$6: \_\_\_

Number of additional tickets at \$9: \_\_\_

Total amount enclosed for program: \_\_\_

**When Worlds Collide.** Saturday, April 30, 3:00 p.m.

Number of Members' tickets at \$6: \_\_\_

Number of additional tickets at \$8: \_\_\_

Total amount enclosed for program: \_\_\_

**NOTE: Orders received less than ten days before show dates will be held for pick-up at the door on the day of the program if tickets are still available. If an event is sold out, you will be advised in writing or by phone and your check will be returned.**



## A Historic Look at Building Stones

Thursday, April 21  
7:00 p.m.  
Kaufmann Theater  
\$6 for Members,  
\$9 for non-Members

Geologist Sidney Horenstein will offer a slide-illustrated look at the use of building stones from their first recorded usages — by Egyptians, Romans, Inca, and others — to the present. He'll discuss quarrying methods and the tools used for shaping and decoration. Most areas offer a variety of stone, and Horenstein will examine how the properties of available stone influenced architectural styles.

Horenstein, who is also the Museum's coordinator of environmental public programs, will lead walking tours in conjunction with this lecture. See the feature below for details about the tours, and please note that individuals registering for this lecture will receive preference when they register for the April 27 walking tour. Use the March Members' programs coupon on page 3 to register.

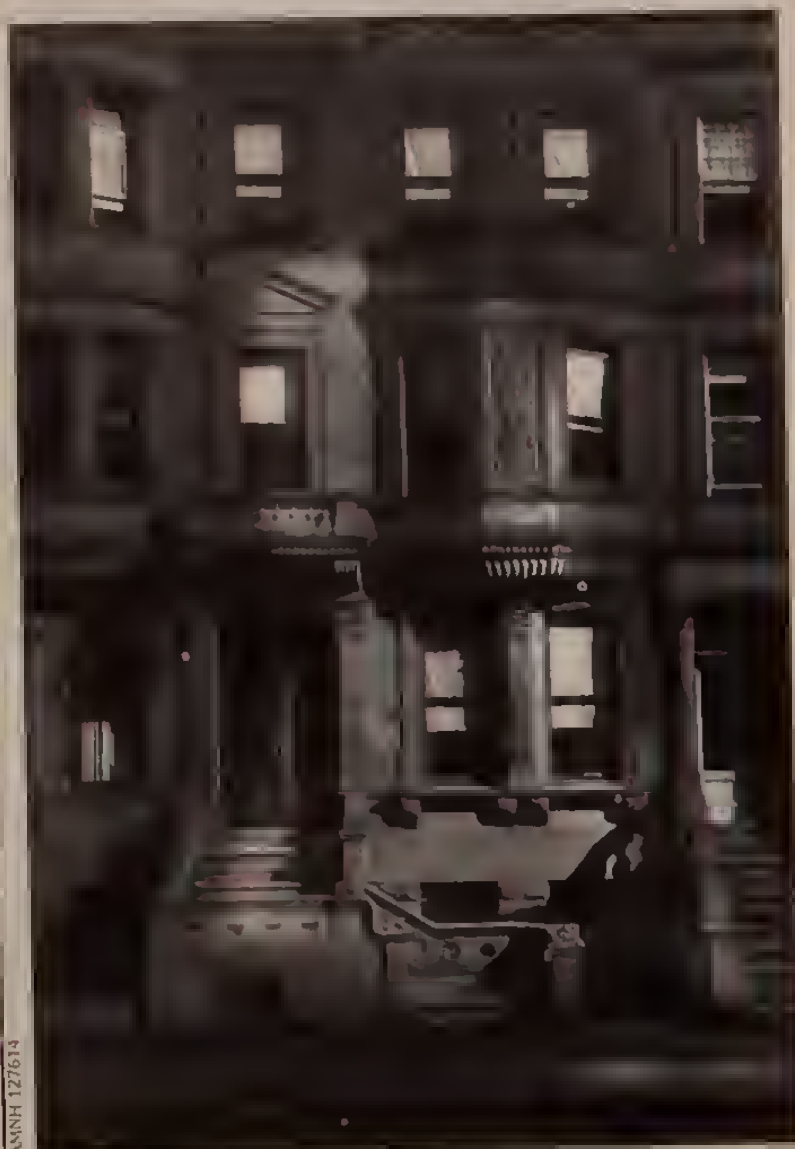


Strata of Tilgate Forest

### Members' Walking Tour

## Building Stones of Manhattan

Wednesday, April 27  
3:00, 4:30, and 6:00 p.m.  
\$16, and open only to Participating and Higher Members  
Appropriate for ages 16 and up



New York City has plenty of everything, especially buildings. Sidney Horenstein, the Museum's coordinator of public programs, will lead Members on a walking tour that will inspect some of the city's tremendous variety of building stones. Participants will learn to identify a variety of rock materials along with their geologic history and problems associated with their improper use or maintenance.

This tour is presented in conjunction with the Members' program *A Historic Look at Building Stones*. Please note that people registering for the lecture on April 21 will receive first consideration for the limited number of places on this tour. Tickets are available only by mail; use the coupon on page 5 to register.

## When Worlds Collide

Saturday, April 30  
3:00 p.m., Kaufmann Theater  
\$6 for Members, \$8 for non-Members

Bellus, a wandering star 12 times the size of our planet, is on a collision course with the earth. There is still time, though, to build a rocket on which a lucky few can escape to Zyra, a satellite of Bellus.

The ultimate disaster movie, *When Worlds Collide* features a catalog of calamities — fires, floods, volcanic eruptions, exploding power plants, and most spectacular of all, a tidal wave that crashes through Times Square. The 1951 George Pal production won an Oscar

for its breathtaking special effects and stands as a milestone in science-fiction film history.

Brian Sullivan, the Hayden Planetarium's production designer, will host a screening of *When Worlds Collide*. He'll introduce the film with a 30-minute slide show that focuses on the film's special effects and other production features that make it a cinematic landmark.

The film is 81 minutes long. Use the coupon on page 3 to register.



Special-effects technicians prepare the space ark

## Members' Cruise on Long Island Sound

Saturday, May 7, Noon-4:00 p.m.  
\$50 for Members, \$60 for non-Members

Spend a spring afternoon speeding along Long Island Sound on this Members' cruise. Participants will travel up the East River, through Hell Gate, and beneath the Throgs Neck Bridge into the sound. They'll view both the New York and Connecticut shorelines on the way to New Haven Harbor and back.

Sidney Horenstein, the Museum's coordinator of

environmental public programs, will host the cruise and point out landmarks along the way. He'll discuss the origins of the sound, the geology of the shorelines, and the history of some of the towns.

Bring a bag lunch; refreshments are available on board. Use the coupon on page 5 to register, and please note that tickets are available only by mail.

### Adult-Child Workshop

## Catching the Wind

Sunday, April 10  
10:30 a.m. and 1:30 p.m.  
\$26 per couple, and open only to Participating and Higher Members  
Appropriate for ages 5 and up

Winds go their own ways. Old Boreas blusters down from the north, and Eurus waves in sheets of cold from the east. Notus is deceitful; it blows in warm from the south and then tears up trees and beats the shore with them. Zephyr, the west wind, is warm and gentle.

To catch the wind one must think of things to amuse it and pique its interest — pinwheels, flapping flags, fluttering feathers, and tinkly

things that make music. Join June Myles at an experimental workshop for making toys and machines to lure the wind. We'll make fanciful wind machines to indicate the direction of the wind or chimes to harness its musical side or a combination of the two. Afterward you can catch the wind and watch it breathe life into your creations.

Use the coupon on page 5 to register; tickets are available only by mail.



# Artistic Expression in an Amazonian Culture

Friday, March 11  
7:00 p.m.  
Kaufmann Theater  
\$7 for Members, \$10 for non-Members

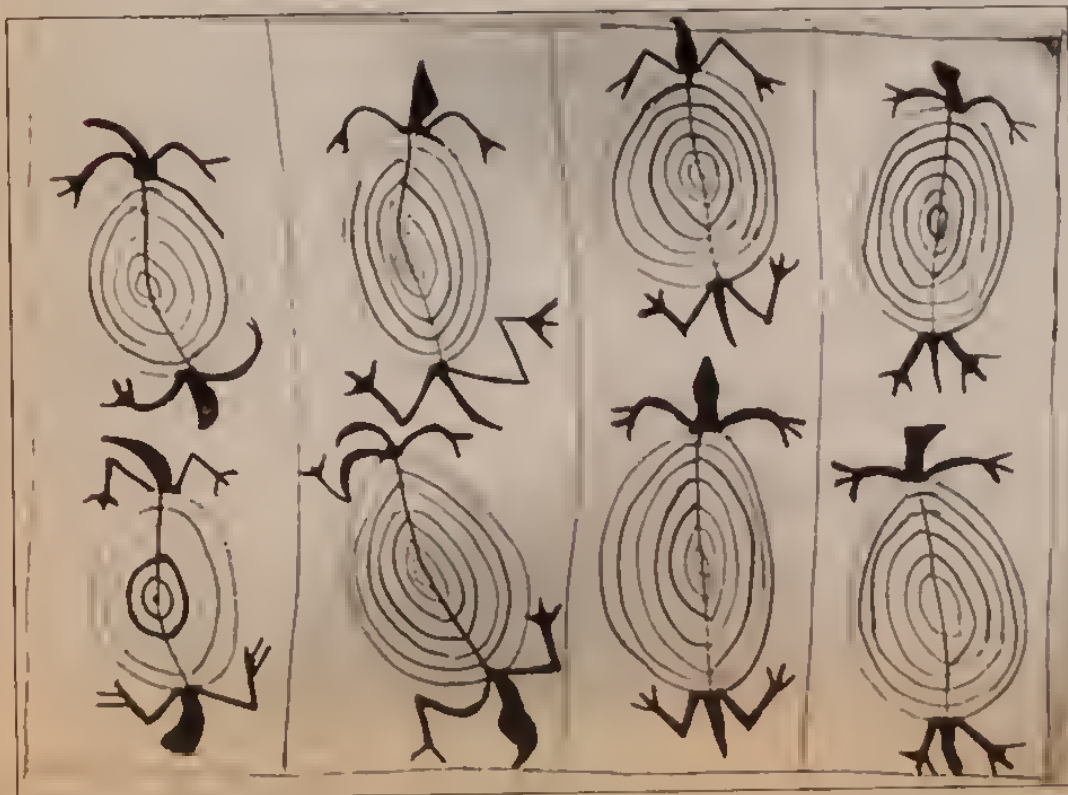
Drawings of supernatural beings and geometric motifs inspired by designs in nature are in the Akeley Gallery exhibition *Waurá*. These drawings were made by the Wauja (Waurá) of Brazil's Alto-Xingu region, who are also known for their zoomorphic pottery.

Anthropologist Emilienne Ireland will present the Mem-

bers' program *Artistic Expression in an Amazonian Culture*, a discussion of artistic creativity in everyday life among the Wauja, a Native Amazonian people. The relationship of the drawings to other forms of artistic expression, such as ceremonial theater, oratory, dance, and song, will be discussed, as well as the role of individual

self-expression in a small and tightly knit traditional community. During the past decade Ireland has resided for nearly two years among the Wauja, whose language she speaks. She is currently completing her doctoral thesis at Yale University on Wauja political organization.

Use the coupon on page 3 to register.



Turtles, drawn with an orange wax crayon

# Rediscovery of the World

An Evening  
with Jean-Michel Cousteau

Monday, April 18  
7:00 p.m.  
Main Auditorium  
\$20 for Members, \$25 for non-Members

Jean-Michel Cousteau, founder of the Cousteau Society, shares his vast experience as an environmentalist, diver, and director of expeditions at the Members' program *Rediscovery of the World*.

Son of the legendary explorer Jacques-Yves Cousteau, Jean-Michel combines charm, wit, and expertise in his examination of the relationship between humans and the ocean environment. He'll point out the systematic mechanical destruction of ocean resources that has taken place over the past century and optimistically declare the 1990s the "decade of solutions."

Striving to instill in others a committed desire to protect and preserve the environment, Jean-Michel uses breathtaking film footage to illustrate the possibilities of reversing the detrimental effects of the past. In so doing, he'll create an unforgettable experience.

This program is presented in conjunction with the Gallery 3 exhibition *Sharks! Fact and*

*Fantasy*, and the presentation will include fascinating accounts of shark behavior. To register, use the coupon on page 3.



The Alcyone

Photo courtesy of Kappeler Associates

# The Samaritans and Jews of India

Wednesday, March 30, 7:00 p.m.  
Main Auditorium, \$7 for Members, \$10 for non-Members

Filmmaker Johanna Spector will introduce and comment on her documentaries *The Samaritans* and *Jews of India*. These intriguing films about dwindling Jewish communities offer a look at vanishing ways of life.

The rituals and lifestyles of a Middle Eastern population that separated from the Jewish mainstream more than 2,500 years ago are the focus of *The Samaritans*. Considering themselves Hebrews rather than Jews, the Samaritans' practices and rites are derived solely from the Samaritan Pentateuch. Their observances are not influenced by Judaic interpretation based on other biblical and rabbinical writings and offer a fascinating contrast to those of modern Judaism, since the Samaritans observe the Sabbath, holidays, and festivals much as they were observed 2,000 years ago.

The film is a remarkable ethnographic record of a little-known people who once numbered in the hundreds of thousands and lived throughout the Levant and Egypt. Now they dwell only in two

small enclaves — one in the city of Holon, Israel, the other in the city of Nablus, on the West Bank of the Jordan — and these communities numbered fewer than 450 individuals at the time of the filming. The 1971 film is 30 minutes.

About the *Jews of India*: *Shanwar Telis or Bene Israel* portrays the Jewish community of Bombay, which numbered only 6,000 (about one-quarter of its original size) when the film was finished in 1978. Most of these Indian Jews migrated to Israel, and their motivation to do so was on religious grounds rather than an avoidance of persecution. The tolerance with which Jews have been treated in India distinguishes them from all other diaspora communities.

The Jews of this region lived in small enclaves in the villages around Bombay, specializing as producers and sellers of til (sesame) and coconut oil. Their Marathi name, *Shanwar Telis* (Saturday oil pressers), indicates that they refrained from selling oil on the Sabbath. In addition to keeping the Sab-

bath, this group maintained only a bare minimum of religious observance until the 1800s, when British rule brought prosperity to Bombay and many of the *Shanwar Telis* moved to the city. There they encountered for the first time Jews from other communities, from whom they learned Sephardic Jewish ritual and under whose influence their lives came to resemble those of other diaspora communities: they built synagogues, translated religious texts into local dialects, and started religious schools and other communal institutions. The film is 40 minutes long.

Anthropologist Johanna Spector, who is a music ethnologist as well as a filmmaker and director, will introduce the films and answer questions from the audience afterward. Spector's film *2,000 Years of Freedom and Honor: The Cochin Jews of India* premiered at the Museum in 1992, as did her documentary *Jews of Yemen* in 1986.

Use the coupon on page 3 to register for the program.

**Membership Workshops and Tours.** Use this coupon to register for the Members' Tour of Yaohan Plaza and Long Island Sound Cruise. Indicate a first and second choice of times for *Mouse in the Matzoh Factory*, *Ecology of North America*, *Japanese Cuisine*, *Building Stones of Manhattan*, and *Catch the Wind*.

Name(s) of program(s): \_\_\_\_\_

\_\_\_\_\_

Number of tickets and price (please indicate which program if more than one): \_\_\_\_\_

Total amount enclosed: \_\_\_\_\_

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Daytime telephone: \_\_\_\_\_

Membership category: \_\_\_\_\_

Please make check payable to the American Museum of Natural History and mail with a **self-addressed, stamped envelope** to: Workshops and Tours, Membership Office, American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192.



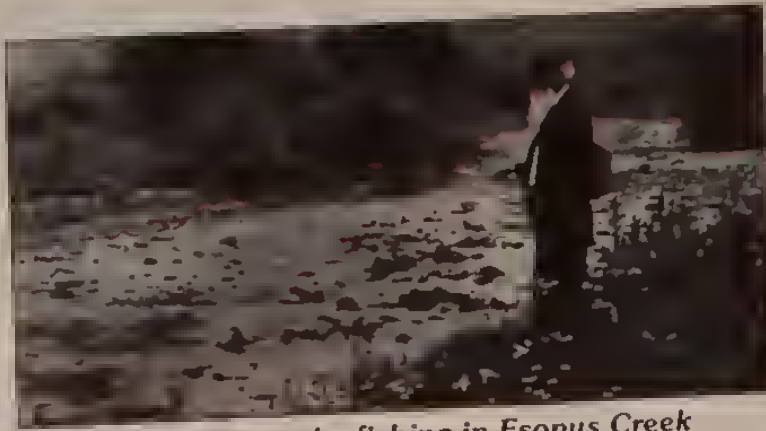
# John Burroughs Programs

John Burroughs (1837-1921) was a leading literary critic and a pioneer in the new school of nature writing. The John Burroughs Association, Inc., founded and headquartered at the American Museum, presents programs and talks to preserve places associated with Burroughs' life. It also maintains Slabsides, the rustic cabin where he studied nature and wrote some of the essays that made him the foremost American nature writer of his time.

For more information about these programs, call (212) 769-5169.

## Annual Meeting and Award Ceremony

The John Burroughs Association's annual meeting will take place on Monday, April 4, from 10:30 to 11:30 a.m. in the Leonhardt People Center. The meeting is free and will be followed by the annual



John Burroughs fishing in Esopus Creek

book award ceremony and lunch, which will take place from noon to 2:00 p.m. in the Audubon Gallery. Tickets for the lunch are \$30 each.

The association will announce the results of its distinguished sixty-eighth annual competition for outstanding nature writing, the fifth annual competition for outstanding natural history books for children, and the first annual award for an outstanding published natural history essay.

## Slabsides Day

Join the friends of the John Burroughs Association on Saturday, May 21, for a program at Slabsides. The open house, which will feature talks and nature walks in the sanctuary, will take place at noon. Admission is free.

Built in 1895, Slabsides was designated a national historic landmark in 1968. It is located in West Park, New York, 80 miles north of New York and 10 miles south of Kingston.

# Field Class in Bird ID in Central Park

Tuesdays, 7:00-9:00 a.m.  
April 5, 12, 19, and 26  
May 3, 10, 17, 24, and 31

Thursdays, 9:00-11:00 a.m.  
April 7, 14, 21, and 28  
May 5, 12, 19, and 26  
June 2

Join naturalists Stephen C. Quinn (on Tuesdays) and Harold Feinberg (on Thursdays) in observing the spring migration of birds through Central Park. Participants will learn how to identify species according to their field marks, habitat, behavior, and song. The fee for the program is

\$5, to be paid to the instructor each morning before the walk starts. There is no pre-registration. Classes meet across from the Museum on the northeast corner of Central Park West and 77th Street.

For further information call (212) 769-5310.

# Lectures, Field Trips, and Workshops

The following programs are presented by the Education Department; all but those with limited enrollment are available to Members at a discount. Use the coupon at right to register, and for further information call (212) 769-5310.

## Biodiversity and Conservation

April 19-May 17  
7:00-8:30 p.m.  
\$36 for Members,  
\$40 for non-Members

The American Museum's Center for Biodiversity and Conservation is sponsoring a series of five lectures on the biodiversity crisis. These talks will review patterns of biological evolution and extinction across geological time and show how changing patterns of human culture have affected other species and their habitats. They'll discuss causes of the current crisis, offer solutions, and examine the reasons that saving the world's species is the most pressing challenge of our generation.

April 19: *The History of Diversity and Extinction*. Niles Eldredge, curator in the Department of Invertebrates.  
April 26: *The Changing Role of Humans in Nature*. Dr. Eldredge.

May 3: *The Biodiversity Crisis and Its Causes*. Joel L. Cracraft, curator in the Department of Ornithology and acting director of the Center for Biodiversity and Conservation.

May 12: *The Biodiversity Crisis and Its Solutions*. Dr. Cracraft.

May 17: *Why Biodiversity Is Important: Understanding and Saving the World's*

Species. Michael J. Novacek, vice president and dean of science.

## Evolution Follies: A Darwinian Entertainment

Richard Milner, an anthropologist, historian of science, lyricist, and senior editor of *Natural History* magazine, mixes little-known anecdotes about Victorian scientists with creative songs about Darwin, Huxley, and evolution. The "hidden agenda" of the Beagle's ship captain, the role of Sioux Indians in the gathering of dinosaur bones, and other fascinating stories will be told. Thursday, April 7, 7:00-8:30 p.m. \$13.50 for Members, \$15 for non-Members.

## Tropical Rain Forest Conservation in Madagascar: The Making of a National Park

Pamela C. Wright, associate professor in the Anthropology Department at SUNY Stony Brook, will present a slide-illustrated program about her involvement in establishing the Ranomafana Park in Madagascar. Thursday, March 3, 7:00-8:30 p.m. \$13.50 for Members, \$15 for non-Members.

## Mustang: The Opening of a Forbidden Himalayan Kingdom

Edwin Bernbaum, mountaineer and scholar, relates the story of his recent journey to Mustang, a formerly closed kingdom. Monday, March 7, 7:00-8:30 p.m. \$13.50 for Members, \$15 for non-Members.

## Volcanoes: Their Eruptions and Emanations

Volcanic eruptions are spectacular, vivid actions of our dynamic earth. Sidney Horenstein, coordinator of environmental public programs, will use slides and videotapes to explain why eruptions occur. He'll also discuss the variety, origin, and distribution of volcanoes and their effect on the history of life and the evolution of earth's atmosphere. Monday, March 7 and 14, 7:00-8:30 p.m. \$22.50 for Members, \$25 for non-Members.

## Animal Drawing

Stephen C. Quinn, naturalist and assistant manager in the Exhibition Department, discusses drawing technique, animal anatomy, and the role of the artist at the Museum. Eight Tuesdays, March 1-April 19, 7:00-9:00 p.m. \$105 (no discount for Members). Materials not included; limited to 25.

## Spring Flowers and Trees in Central Park

Participants on a two-hour morning walk in Central Park observe botanical signs of spring. They'll learn about plant identification and ecology from William Schiller, lecturer in botany for the Education Department. Saturdays, April 23 or 30, or Wednesday, May 4, 9:00-11:00 a.m. \$15 per walk (no discount for Members). Limited to 25 people.

## Weekend for Bird Enthusiasts

Jay Pitocchelli, research associate in the Ornithology Department and professor of

biology at Saint Anselm College, leads an exciting two-day bus trip to wooded areas near New York City, including the Pine Barrens of New Jersey and Brigantine National Wildlife Refuge. Saturday and Sunday, May 14 and 15. \$175 (double occupancy; no discount for Members). Limited to 36.

## Weekend Whale Watch off Cape Cod

Three 4-hour whale-watch-

ing excursions will cruise the rich feeding grounds off Stellwagen Bank, where several species of whales are commonly seen at close range. Museum staff members Brad Burnham, senior instructor in natural science in the Education Department, and naturalist Stephen C. Quinn accompany the group. Friday-Sunday, May 20-22. \$400 (double occupancy; no discount for Members). Limited to 45 adults.

## Lecture Series

I enclose a stamped, self-addressed envelope together with a check (or money order) payable to the American Museum of Natural History for:

\$ \_\_\_\_\_  
Advance registration is requested, but registration will be accepted on the opening night if the course is not filled (please call in advance). Registration will be delayed if daytime telephone number and stamped, self-addressed envelope are not included. For further information call (212) 769-5310. Please print.

Course	No. tickets	Price/ticket	Total
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Course	No. tickets	Price/ticket	Total
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Course	No. tickets	Price/ticket	Total
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Course	No. tickets	Price/ticket	Total
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Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Daytime telephone: \_\_\_\_\_

Please make check payable to the American Museum of Natural History and mail with a **stamped, self-addressed envelope to: Lecture Series**, Education Department, American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192.



## Global Cultures in a Changing World

Charles A. Dana Education Wing

The Education Department offers public programs that celebrate diverse cultural customs and their traditions. Lectures, films, demonstrations of music and dance, workshops, and performances are featured. This

month's programs are presented in conjunction with Women's History Month.

For a brochure listing specific programs through May, call the Multicultural Outreach Office at (212) 769-5315.

The programs presented by the Education Department are made possible by the gifts of the Tulo Peterson Wallace Fund at the New York Community Trust, Henry Nias Foundation, Inc., the Lavanburg-Her House, the Vidda Foundation, Marsicano Foundation, Samuel and May Rodin Foundation, William Randolph Hearst Foundation, Howard Hughes Medical Institute, S.H. and Helen R. Scheuer Foundation, Inc., Norman and Rosita Winston Foundation, Chase Manhattan Bank, Citicorp/Citibank, Chemical Bank, New York State Council on the Arts, Edward S. Mooney Foundation, and the family of Frederick H. Leonard.

## Sharks! Fact and Fantasy

These programs are presented in conjunction with the current Gallery 3 exhibition. To order tickets, send your check or money order payable to the American Museum of Natural History, 79th Street and Central Park West, New York, NY 10024-5192. Be sure to indicate which program and the number of tickets desired, and please include your daytime telephone number. For additional information, call the Education Department at (212) 769-5310.

### Ancient Stories and Current Affairs Friday, March 18

Sharks have been swimming in the oceans for more

than 415 million years — long before any animals with backbones appeared and long after the last of the dinosaurs. John Maisey, curator in the Department of Vertebrate Paleontology, will introduce the basics of shark fossil remains and evolution to show that sharks are ancient animals.

Richard Ellis, a famous shark painter, will talk about what makes a shark a shark by introducing shark biology and illustrating how sharks adapt to their environment. He will also discuss shark research and his work painting them.

A walk through *Sharks! Fact and Fantasy* will follow the lecture.

The program will take place from 7:00 to 8:00 p.m. in the Hall of Ocean Life. Tickets are \$9 for Members and \$10 for non-Members.

### Shark Tales

Recommended for ages preschool through Grade 6  
Saturday, March 12

Eugenie Clark, professor at the University of Maryland and coauthor of the children's book *The Desert Beneath the Sea*, will read stories about her adventures swimming with and studying sharks as well as other under-sea stories. Participants will also see slides and a video of Eugenie swimming with a whale shark, diving in a submersible, and observing a deep-sea octopus. Participants view the *Sharks! Fact and Fantasy* exhibition on their own.

The program will take place from 10:30 to 11:30 a.m. in the Kaufmann Theater. Tickets are \$9 for Members and \$10 for non-Members.

## Workshops for Young People



a shadow puppet theater and will hear and tell stories using these and other puppets. Presented by Ron Sopyla, instructor at the Westside Montessori School. \$25.

**From Bone to Stone**  
Preview of the new fossil mammal halls: Sunday, March 20; 10:30 a.m. — 11:30 a.m.  
Workshop: Saturday, April 23; 10:30 a.m. — 1:30 p.m.  
Grades 3 and 4 (ages 8-10)

Skeletons turn to fossils when covered by mud that hardens into rock over millions of years. Fossil skeletons are often the only evidence we have of animals long extinct. Join the private preview of the new halls of fossil mammals to explore past life on earth. Children will sculpt their own clay "fossils." Presented by Angela Tripi-Weiss, art director at PS 87 in Manhattan. \$25 for workshop and preview.

**Sound and Music**  
Saturday, April 30  
10:30 a.m. — 1:30 p.m.  
Grades 1 and 2 (ages 6-8)  
Discover the world of sound and music. We'll demonstrate different types of sounds and how they are created, and we'll investigate a variety of musical instruments. Children will make their own instruments. Presented by Roy Mueller, special events coordinator and assistant manager at the Nature Company, South Street Seaport. \$25.

**Sensational Sharks**  
Saturday, April 23  
Grades 2 and 3 (ages 7-9)  
10:30 a.m. — 1:30 p.m.  
Long regarded with fear, the shark is a beautiful and graceful creature. Through slides, a visit to the Hall of Ocean Life, discussions, and

hands-on experience with specimens, children will gain a new appreciation for this marine predator, which now needs to be protected from people. Presented by Merryl Kafka, assistant director of education at the Aquarium for Wildlife Conservation. \$25.

**Jungle Gymnastics**  
Saturday, May 14  
10:30 a.m. — 1:30 p.m.  
Grades 3 and 4 (ages 8-10)  
Learn about animals by finding out what makes them tick. Get into their environment by re-creating their movements. Children will make a mask of one of the Museum's animals. Presented by Brian O'Sullivan, instructor at the Calhoun School. \$25.

**Undersea Neighbors**  
Saturday, May 21  
10:30 a.m. — 11:30 a.m.  
4-year-olds, each accompanied by one adult  
Using specimens in an interactive story, children will learn about a variety of ma-

rine animals. Song, dance, and a short film will highlight marine animals. A take-home art project and visit to the Hall of Ocean Life are included. Presented by Dayna Reist, instructor at the Aquarium for Wildlife Conservation. \$25.

**Children Learn to Draw**  
Saturday, May 14  
10:30 — 11:30 a.m.  
5-year-olds, each accompanied by one adult  
Young children get a head start in art by learning to draw with easy art materials and visiting some exhibitions to draw animals within their environments. After story time and a short video, children will create collage pets to take home. Presented by Judith Levy, who has taught at the Carnegie Museum of Art. \$25.

Use the coupon below to register early. Children should bring a bag lunch to all 3-hour workshops. For further information call (212) 769-5310.

### DEPARTMENT OF EDUCATION Workshops for Young People

I would like to register for the following workshop(s):

Workshop: \_\_\_\_\_

Student's last name: \_\_\_\_\_ First: \_\_\_\_\_

Age: \_\_\_\_\_ Grade: \_\_\_\_\_

Parent's last name: \_\_\_\_\_ First: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Total amount enclosed: \_\_\_\_\_

Register early. Class sizes are limited. Separate check per workshop or course. Please note that due to limited registration discounts are not available for these workshops. Send this coupon with your check or money order payable to the American Museum of Natural History and a self-addressed, stamped envelope to: *Workshops for Young People*, Department of Education, American Museum of Natural History, 79th Street and Central Park West, New York, NY 10024-5192.

### Windowsill Garden Workshop

Saturday, April 23 (for Earth Day)  
10:30 a.m. — 12:30 p.m.  
Ages 6 and older, each accompanied by an adult  
Start a salad on your windowsill. Plant lettuce, roots, and herbs, plus flowers to garnish your table. Presented by science instructors Uta Gore and Jay Holmes. \$10, and all materials are provided.

### Archeology

Two Sundays, April 24 and May 1  
11:00 a.m. — 1:00 p.m.  
Grades 4 and 5 (ages 9-11)  
Students participate in the excavation of a simulated archeological site in the classroom. Slide presentations, hands-on demonstrations with fossils and artifacts, and a visit to an exhibit of a dig site help youngsters understand the field techniques used by archeologists. Presented by Anita Steinhart, teacher at PS 23 in Queens. \$30.

### Inside Your Body

Saturday, April 9  
10:30 a.m. — 1:30 p.m.  
Grades 2 and 3 (ages 7-9)  
What's underneath your skin? In this program children listen to their heartbeats, examine X-rays, and find out what makes their bodies work. Presented by Dina Cukier Schlesinger, science teacher at PS 140 in Manhattan. \$25.

### Japanese Doll-Making

Saturday, April 9  
10:30 a.m. — 1:30 p.m.  
Grades 3 and 4 (ages 8-10)  
In Japan dolls have their own festival. Heirloom dolls represent the imperial family and samurai protectors. Japanese craftsmen also make simple wooden dolls, paper dolls, and elaborate dolls dressed in beautiful kimonos. Learn about the variety of Japanese dolls and make your own to display and bring good luck. Presented by Karen Kane, senior instructor in the Education Department. \$25.

### Microscopic Adventures

Saturday, April 16  
10:30 a.m. — 1:30 p.m.  
Grades 3 and 4 (ages 8-10)  
Discover the miniature world of fish, scales, feathers, fur, crystals, and more under the microscope. Children learn how to compare different kinds of animal and plant cells and make microscope slides to view living organisms. Presented by Uta Gore, science instructor in the Education Department. \$25.

### Let's Make Shadow Puppets

Saturday, April 16  
10:30 a.m. — 1:30 p.m.  
Grades 1 and 2 (ages 6-8)  
Shadow puppets have played a part in the religion, folklore, and entertainment of many cultures. Children will have fun making puppets for



## Members' Tour

# Yaohan Plaza

Sunday, April 24

10:00 a.m.-1:30 p.m.

\$45, and open only to Participating and Higher Members

Appropriate for ages 16 and up

Since its opening in 1988 Yaohan Plaza has become an unofficial center of Japanese culture in the Greater New York area. Pat Kinney, who hosts the *Members' Workshop on Japanese Cuisine* (see the article below), will take Members on an exploration of Yaohan. She'll translate Japanese-English signs ("almighty cook pan," for example, means "all-purpose") and point out items of interest (four is an unlucky number, so Japanese dishes

are sold in sets of five).

Participants can watch chefs prepare *okonomiyaki*, a Japanese favorite that wasn't available in this area until the opening of Yaohan. After touring a grocery store Members will have lunch, choosing from a wide variety of Japanese dishes prepared in the food court. They'll enjoy their authentic Japanese lunch with a panoramic view of Riverside Church and the Manhattan skyline as the only reminder

that they've crossed the Hudson instead of the Pacific. The trip will conclude with a visit to a Japanese department store that sells a wide variety of Japanese goods, from tea sets to books and games.

Participants will travel by bus from the Museum to Yaohan Plaza, which is located in Edgewater, New Jersey, less than 30 minutes from midtown Manhattan. Use the coupon on page 5 to register, and please note that tickets are available only by mail.

## Members' Workshop on

# Japanese Cuisine

Sunday, March 6

11:00 a.m.-12:30 p.m. and 2:00-3:30 p.m.

\$20, and open only to Participating and Higher Members

Appropriate for ages 16 and up



Japanese tea ceremony

A special workshop explores Japanese culinary traditions and their relations to folklore along with Japanese dining and tea-drinking etiquette.

Host Pat Kinney will introduce several ingredients typical to Japanese cuisine and offer tastings. Garnishes and flavorings such as *shoga* (pickled ginger) and *ao nori* (a sea vegetable) will be sampled. Participants will taste *azuki*, the red beans that are sweetened and used in confections, and *kombu*, a form of seaweed that's the basic ingredient of Japanese soup and stock. *Kombu* is also prepared as a vegetable or

made into salted or sweetened snacks.

Kinney will explain what each ingredient is and how it is used in preparing many of the foods that Americans enjoy in Japanese restaurants. After tasting an assortment of Japanese dishes participants will try to identify which ingredients were used in them.

Host and producer of *West Meets East* on Vision Cable in New Jersey, Pat Kinney has worked closely with the Japanese community in Greater New York for a dozen years. She has produced a series of television interviews in Japan for Fuji/Sankei and

has taught Japanese cooking at the New School, Bloomingdale's, and King's Cooking Studios. Kinney writes a regular column for Bergen's *The Record*, "Neighbors from Japan," on Japanese culture in the New York area. This column also appears in *Jomo Shimbun* in Japan.

Next month Kinney will lead Members on a tour of Yaohan Plaza in Edgewater, New Jersey, where she obtains many of the foods featured in the workshop (see the related article above).

Use the coupon on page 5 to register, and please note that tickets are available only by mail.

## Members' Tours

# Sharks!

Friday, March 4

5:00 and 6:00 p.m.

(The 4:00 and 7:00 p.m. tours are Sold Out)

Free, and open only to Participating and Higher Members



Whale shark

The new Gallery 3 exhibition offers a comprehensive view of sharks and shark behavior, and Members can take guided tours of *Sharks! Fact and Fantasy* to see how unique and diverse these animals are.

Volunteer Highlights Tour Guides will lead participants through a re-creation of an underwater habitat, complete with life-size models that dramatically illustrate the variety of body size and form among species. The guides will dis-

cuss aspects of shark morphology and behavior as well as the relationship between sharks and people, the role of sharks in myth and folklore, the commercial and scientific uses of sharks, and shark attacks and attack prevention. The tours will also take a look at the sharks on display in the Museum's permanent collections.

The tours will last about 45 minutes. Use the March Members' programs coupon on page 3 to register.

## Members' Birthday Parties at the Museum

# Shark Surprise

Before there were dinosaurs, there were sharks. And before *Jaws*, there was the monster shark *Carcharodon megalodon*, three times the size of the great white. In conjunction with the special exhibition *Sharks! Fact and Fantasy*, the Membership Office is throwing a special birthday party devoted to these living fossils.

Young Members between the ages of 5 and 10 can invite their friends to a partying frenzy among some of their favorite sharks. They'll learn what these amazing creatures like and don't like, how they swim, and how they use their superior senses. Crafts and shark-style games will add to the fun before the party-goers sink their jaws into ice cream and cake.

In addition to the shark parties there are five other kinds of parties focusing on dinosaurs, African mammals, reptiles and amphibians,

ocean dwellers, and Native Americans of the Great Plains.

The parties are two hours long and held at 3:30 p.m. on Wednesdays, at 4:00 p.m. on Fridays, and at 11:00 a.m. or 2:30 p.m. on weekends. The group should be no fewer than 10 and no more than 20. The fee is \$275 plus \$15 per child and covers all materials, juice, ice cream, favor bags, and the services of a Museum party coordinator. The coordinator will help you plan a party that suits your child's needs and tastes, and on the day of the party, she'll handle everything from candles to party favors. All you need to do is bring the cake and help escort your child's guests.

Shark parties are available only for the duration of the temporary exhibition, which closes on May 1. For more information about the parties, call (212) 769-5542.





AMNH 318729

## Current Exhibitions

### Sharks! Fact and Fantasy

The current Gallery 3 exhibition features an underwater habitat and life-size models of some of the marine world's most fascinating predators. Live stingrays and a pair of sharks in tanks are also featured. *Sharks! Fact and Fantasy* is on display through May 1. See page 8 for details of Members' tours.

### Waurá

A selection of drawings by the Waurá Indians of Brazil's Upper Xingu River region is on display in the Akeley Gallery. Geometric designs, anthropomorphic figures, and mythological or supernatural beings are among the drawings' themes, along with animal images such as tapirs, monkeys, bats, and snakes. The exhibition will be on display through April 24. See page 5 for details of a Members' program relating to the exhibition.

### Librarian's Choice

An exhibit of rarities from the Museum Library's extensive collections is on display in the Library Gallery. *Librarian's Choice: Treasures from 124 Years of Collecting* features items from the Rare Book, Photographic, Film, Art, and Archives collections. The gallery is located on the fourth floor.

### The Barosaurus

The world's tallest free-standing dinosaur exhibit, a five-story-high *Barosaurus*, is on display on the second floor of the Roosevelt Memorial Hall.

The Museum houses the world's largest and most comprehensive collection of fossil vertebrates, and work on a new exhibition area is under way on the fourth floor. The halls of Earth History, Late and Early Mammals, and Late and Early Dinosaurs are closed for renovations. The first of the new halls will open later this year.

Friends of Fishes presents

## White Death in the Water

### An Evening with Richard Ellis

Wednesday, April 13

7:00 p.m.

Main Auditorium

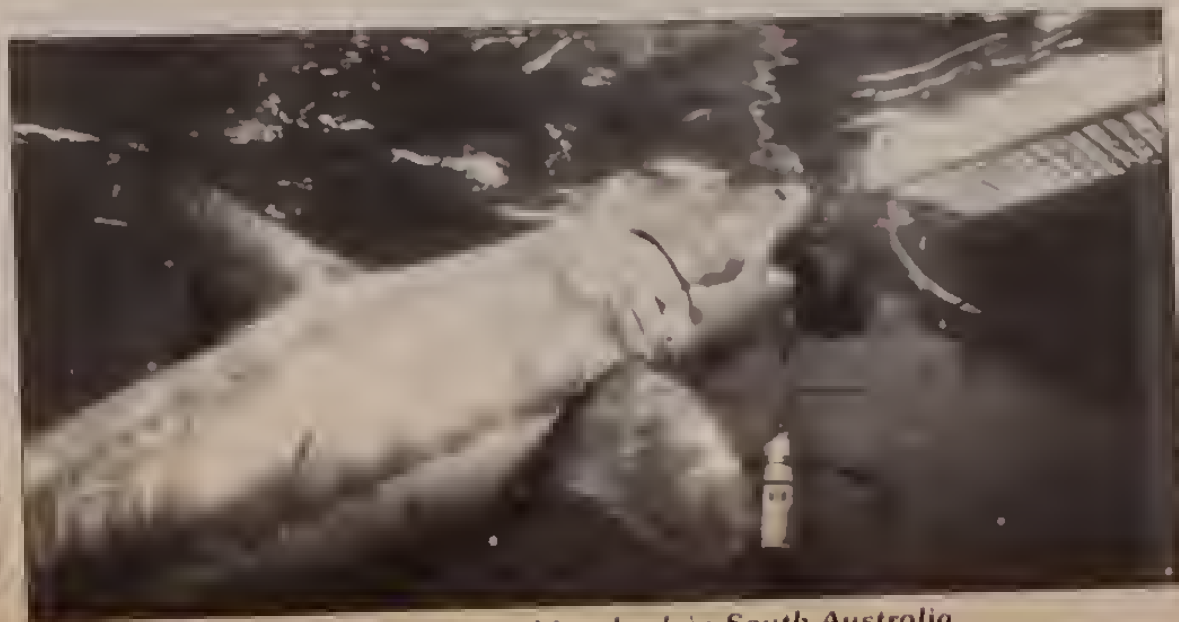
\$8 for Members, \$10 for non-Members

Richard Ellis will host an exhilarating and terrifying encounter with the great white shark. *White Death in the Water: An Evening with Richard Ellis* takes audiences Down Under to Adelaide and Port Lincoln, where they'll board the dive boat *Nenad* and set out on a grim and dangerous search for the shark Australians call White Death.

Adventures include a close-up of a 15-foot great white as it tears chunks of meat and fish from the bars of Ellis's diving cage, a dive with sea lions to learn how the great white hunts, and a look at the biggest great white shark ever caught on a rod and reel, which weighed in at 2,664 pounds.

A well-known authority on marine life, Ellis is the co-

author of *Great White Shark* (Stanford University Press), which is considered the definitive book on the subject. After the lecture there will be a reception and book signing in the Hall of Ocean Life and Ellis will answer questions about sharks. Use the coupon below to order tickets, and for additional information call (212) 289-3605 or fax (212) 360-2605.



Diver and great white shark in South Australia

## Seining Hudson River Fishes

### Featuring an old-fashioned shad bake at George's Island

Saturday, May 14

9:00 a.m.-5:00 p.m.

\$60, and open only to Participating and Higher Members

Come try your luck at the age-old art of seining. Members of Friends of Fishes, the Hudson River Foundation, and the Museum's Department of Ichthyology will host a day of fishing, eating, and learning at George's Island on the Hudson River near Croton, New York.

Participants will wade into the water and use seining nets to help gather fish from the Hudson. Museum scientists will help identify the catch and discuss the variety of local fishes and their life cycles, illustrating their talks with cleaned and stained specimens from the Museum's collection. For those who prefer to stay ashore, there will be geology talks about the lower Hudson River Valley and the formation of George's Island and Croton Point.

Lunch will feature a gourmet selection of fish, salads, side dishes, dessert, and juices, soda, beer, and wine. The day's specialty will be shad, a local spring catch that was once so abundant

the early settlers called it Albany steak. Chris Letts of the Hudson River Foundation will officiate at a traditional shad bake, nailing the fish to white oak planks for baking and smoking over an open fire.

Wear comfortable clothes and bring bathing suits, towels for sun bathing, waders or

boots, and a hearty appetite. Ticket price includes lunch and transportation from the Museum. Register soon; ticket availability is limited and only through mail order. For further information call (212) 289-3605 or fax (212) 360-6625. Use the coupon below to register.

#### Friends of Fishes Registration Form

Name of program(s): \_\_\_\_\_  
Number of tickets: \_\_\_\_\_  
Total amount enclosed: \_\_\_\_\_

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Daytime telephone: \_\_\_\_\_

Membership category: \_\_\_\_\_

Please make check payable to Friends of Fishes/AMNH and mail with a **self-addressed, stamped envelope** to: Friends of Fishes, Department of Ichthyology, American Museum of Natural History, Central Park West at 79th Street, New York NY 10024-5192.

## SPRING IS HERE Celebrate

Easter Sunday  
April 3rd

Mother's Day  
Sunday, May 8th

Holiday Buffet  
11am - 4pm

Adults \$16.95 Children under 10, \$8.95

Reservations suggested

Call the Garden Cafe at 212 769-5865

Located on the Lower Level

GARDEN CAFE  
AMERICAN MUSEUM OF NATURAL HISTORY



# Courses for Stargazers



## ASTRONOMY: BASIC COURSES

### Introduction to Astronomy

Eight Tuesdays, beginning March 29; 6:30-8:40 p.m. \$85.50 for Members \$95 for non-Members

A first course in astronomy, designed to introduce the many interesting aspects of the universe to those without a math or physics background. Topics include earth as a planet, the moon, the solar system, the stars, the Milky Way, galaxies, quasars, and black holes. Common observations such as planet motions and the rising and setting of the sun and moon are explained. No previous knowledge of astronomy is assumed. Instructor: Sune Engelbrektson.

### Adventures in Astronomy

Five Saturdays, beginning April 2; 9:40-11:40 a.m. \$67.50 for Members \$75 for non-Members

Confused about the difference between a star and a planet? Can't tell astronomy from astrology? Don't know Aquarius from Sagittarius or a black hole from a brown dwarf? Join us for a new Saturday course for the whole family (ages 10 and up). In the Sky Theater and in labs with astronomical equipment we will explore the birth and death of stars, the origin of the universe, the search for extraterrestrial life, and the current night sky. Instructor: Craig Small.

### Stars, Constellations, and Legends

Five Tuesdays, beginning March 29; 6:30-8:10 p.m. \$58.50 for Members \$65 for non-Members

The lore of the sky is introduced with the Sky Theater's Zeiss projector, which will identify the prominent stars, constellations, and other sky objects of both Northern and Southern Hemispheres. The myths and legends of many cultures relating to the sky, as well as galaxies, star clusters, and nebulae found among the constellations, are illustrated. No prerequisites. Instructor: Henry J. Bartol.

### Celestial Highlights

Four selected Mondays: May 16, June 13, July 18, August 15; 6:30-7:40 p.m. \$36 for Members \$40 for non-Members

This course will focus on the interesting and exciting events in the skies of the coming month. The night sky will be accurately simulated by the Zeiss projector in the Sky Theater, and students will learn how to find prominent constellations of the season and where and when to see gatherings of the moon and planets. The Planetarium's extensive collection of special effects will illustrate upcoming celestial events, including meteor showers and eclipses. Students will also learn about current space missions and how to find nebulae, star

clusters, and galaxies that are visible through binoculars or small telescopes. Instructors: Joe Rao and Henry J. Bartol.

### How to Use a Telescope

Eight Mondays, beginning March 28; 6:30-8:40 p.m. \$85.50 for Members \$95 for non-Members

An introduction to choosing and using a small amateur telescope. Topics include basic optics of telescopes, equatorial and altitude-azimuth mountings, eyepieces, collimating a telescope, setting up for observation, locating objects in the sky, and the use of charts and other aids for observation. No previous knowledge of astronomy is assumed. This course is particularly recommended for those considering the purchase of a telescope and for those who have one but aren't sure how to use it. Instructor: Sam Storch.

## ASTRONOMY: INTERMEDIATE COURSES

### The New Solar System

Eight Thursdays, beginning March 31; 6:30-8:40 p.m. \$85.50 for Members \$95 for non-Members

Information supplied by spacecraft during the past decade has made the planets exciting subjects for scientific study. This course will introduce the planets both as parts of the entire solar system and as unique bodies. Structure, composition, weather, rings, and satellite systems of the planets are among the topics to be included. Images from the many planetary spacecraft will be used to complement the class lectures and discussions. *Introduction to Astronomy* is recommended but not required. Instructor: Francine Jackson.

### A Little Look at Relativity

Four Tuesdays, beginning March 29; 6:30-8:10 p.m. \$67.50 for Members \$75 for non-Members

This short course is designed to serve as a brief introduction to Einstein's General and Special Theories of Relativity. A basic understanding of elementary algebra will be helpful, but no extraordinary IQ is necessary. Just be prepared to check logic and common sense at the door and you will be ready to enter the exotic world of time travel, black holes, cosmic wormholes, and more. Instructor: William Gutsch.

## METEOROLOGY

### Weather and Climate

Eight Thursdays, beginning March 31; 6:30-8:40 p.m. \$85.50 for Members \$95 for non-Members

Everyone talks about the weather. This course is for those who would like to know more about the atmosphere

— how it works and how it affects us. Topics include the structure and motions of the atmosphere, climate, weather forecasting, and atmospheric optics such as rainbows, halos, and twinkling stars. No formal training in physics or math is required. Instructor: Barry Grossman.

## AVIATION

### Ground School for Private and Commercial Pilots

Fifteen sessions, Tuesdays and Thursdays, beginning March 29; 6:30-9:00 p.m. \$166.50 for Members \$185 for non-Members

This course helps private and commercial pilots prepare for the FAA written examinations. It can also help as a refresher for biennial flight reviews, relieve some instances of fear of flying, and survey some aspects of flight training and aircraft ownership. Subjects include physiological factors affecting pilot performance, visual and electronic navigation (VOR, ADF, DME, SAT, NAV, and LORAN), charts, publications, computers, principles of aerodynamics, and weather. Students will plan cross-country trips and have an opportunity to try the flight deck simulator. Instructor: Ted Cone.

### Ground School for Instrument Pilots

Fifteen sessions, Tuesdays and Thursdays, beginning March 29; 6:30-9:00 p.m. \$166.50 for Members \$185 for non-Members

Intended for those planning to take the FAA written examination for an instrument rating. Class meets twice a week, concurrently with *Ground School for Instrument Pilots* (see above for details).

## NAVIGATION: BASIC COURSE

### Navigation in Coastal Waters

Eight Mondays, beginning April 4; 6:30-9:00 p.m. \$99 for Members \$110 for non-Members

An introduction to piloting and dead reckoning for present and prospective owners of small boats. The course provides practical chartwork and includes such topics as the compass, bearings, fixes, buoys and lighthouses, the running fix, current vectors and tides, and rules of the nautical road. Boating safety is emphasized. No prerequisites. Students are required to purchase an equipment kit. Instructor: Gregory Smith.

## NAVIGATION: ADVANCED COURSE

### Advanced Celestial Navigation

Eight Wednesdays, beginning March 30; 6:30-8:40 p.m. \$85.50 for Members \$95 for non-Members

This course includes subject matter not covered in *Introduction to Celestial Navigation* with additional practice problems for the solution of the celestial line of position, latitude by meridian transit of the sun and other celestial bodies, latitude by observation of Polaris, computations of sunrise, sunset, moonrise, moonset, and twilight phenomena. Other subjects include navigational astronomy, star identification by altitude and azimuth methods, and azimuth computations for determining compass error and deviation at sea. Prerequisite: *Introduction to Celestial Navigation* or equivalent experience with the permission of the instructor. Instructor: Harold A. Parnham.

## Courses for Stargazers

I would like to register for the following Planetarium course(s):

Name of course: \_\_\_\_\_  
Price: \_\_\_\_\_ Please note that discount prices apply only to Participating and Higher Members.)

Class beginning: \_\_\_\_\_

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Daytime telephone: \_\_\_\_\_

Membership category: \_\_\_\_\_

Please mail this coupon with your check payable to the American Museum-Hayden Planetarium to: *Courses for Stargazers*, Hayden Planetarium, Central Park West at 81st Street, New York, NY 10024-5192. Registration by mail is strongly recommended and is accepted until seven days preceding the first class. For additional information, call (212) 769-5900, Monday-Friday, 9:30 a.m.-4:30 p.m. **No credit cards accepted. Do not include ticket requests or checks for American Museum programs.**



# Museum Notes

## Hours

Exhibition Halls  
Mon.-Thurs. & Sun. ....10:00 a.m.-5:45 p.m.  
Fri. & Sat. ....10:00 a.m.-8:45 p.m.  
The Museum Shop  
Mon.-Thurs. & Sun. ....10:00 a.m.-5:45 p.m.  
Fri. & Sat. ....10:00 a.m.-7:45 p.m.  
The Junior Shop  
Mon.-Fri. ....10:00 a.m.-4:45 p.m.  
Sat. & Sun. ....10:00 a.m.-5:45 p.m.  
The Museum Library  
Tues.-Fri. ....11:00 a.m.-4:00 p.m.  
The Discovery Room  
Passes are distributed at the first-floor information desk beginning at 11:45 a.m. Ages 5-10.  
Children must be accompanied by an adult.  
Closed on holidays and weekdays.  
Sat. & Sun. ....Noon-4:30 p.m.  
The Natural Science Center  
For children of all ages and their families.  
Closed on Mondays and holidays.  
Tues.-Fri. ....10:30 a.m.-12:30 p.m.  
& 2:00-4:30 p.m.  
Sat. & Sun. ....1:00-4:30 p.m.

## Museum Dining

Diner Saurus Fast Service Eatery  
Daily ....11:00 a.m.-4:45 p.m.  
Garden Cafe  
Reservations: (212) 769-5865  
Lunch: Mon.-Fri. ....11:30 a.m.-3:30 p.m.  
Dinner: Fri. & Sat. ....5:30-7:30 p.m.  
Brunch: Sat. & Sun. ....11:00 a.m.-4:00 p.m.  
Whale's Lair  
Fri. ....3:00-8:00 p.m.  
Sat. ....Noon-8:00 p.m.  
Sun. & most holidays ....Noon-5:00 p.m.  
Snack Carts (at 77th Street & on the first floor of the Roosevelt Memorial Hall)  
Sat. & Sun. ....11:00 a.m.-4:00 p.m.

## Entrances

During Museum hours visitors can enter the building through the 77th Street entrance, the parking lot entrance (81st Street), or the Roosevelt Memorial Hall entrance (79th Street and Central Park West). **Visitors attending programs after hours can enter the building through the driveway entrance at 79th Street and Central Park West.**

## Parking

The Museum's parking lot is located on 81st Street between Central Park West and Calumbus Avenue. Space is limited and available on a first-come, first-served basis; fees are \$12 for cars and \$11 for buses. The lot is open from 9:30 a.m. to 9:30 p.m. on Sunday through Thursday and from 9:30 a.m. to midnight on Friday and Saturday.

Hertz Manhattan, located one block away from the Museum at 210 West 77th Street (between Broadway and Amsterdam), offers parking discounts to Members: on Monday through Friday they receive a \$2 discount off regular prices and on Saturday and Sunday Members receive a \$3 discount.

Call the Membership Office at (212) 769-5606 for information about alternative parking.

## Naturemax

The new IMAX film Search for the Great Sharks takes viewers on an incredibly exciting underwater cinematic experience. They'll go on a round-the-globe expedition to discover some of the world's largest sharks and to observe them at close range. Blue sharks, white sharks, and the notorious great white shark are pursued from the coast of California to the remote reaches of southern and western Australia.

Showtimes for Search for the Great Sharks are 10:30 and 11:30 a.m., 1:30 and 3:30 p.m. daily. To the Limit, an exploration of the adaptation of the human mind and body to conditioning for

outstanding physical performance, is shown at 12:30, 2:30, and 4:30 p.m.

On Friday and Saturday at 6:00 and 7:30 p.m., Search for the Great Sharks is shown on a double bill with To the Limit. Schedules and prices are subject to change without notice. Call (212) 769-5650 for further information.

Admission (Participating and Higher Members):  
Adults: \$4 single feature; \$5.50 double feature  
Children: \$2 single feature; \$3 double feature

## Museum Tours

Free Museum Highlights Tours are available to individuals and families. Tours are conducted daily at 10:15 and 11:15 a.m., 1:15, 2:15, and 3:15 p.m. and depart from the second floor between the Roosevelt Rotunda and the Hall of African Mammals.

Group Tours are available for a fee. All Group Tours must be scheduled through the Volunteer Office. For details, call (212) 769-5566.

## Phone Numbers

Museum information ....(212) 769-5100  
Membership information (for questions about Museum events) ....(212) 769-5606  
Participating Members' Customer Service (for questions and problems related to Rotunda and Natural History magazine — missed issues, address changes, and other information) ....(800) 283-AMNH  
Planetarium information ....(212) 769-5900  
Education Department ....(212) 769-5310  
Discovery Tours ....(212) 769-5700  
.....toll-free outside NY State: (800) 462-8687  
Naturemax ....(212) 769-5650  
Development/Public Affairs ....(212) 769-5270  
Volunteer Office ....(212) 769-5566  
Museum Shop ....(212) 769-5150  
Library Services ....(212) 769-5400  
Natural History magazine ....(212) 769-5500  
Members' Book Program ....(212) 769-5500

# Happenings at the Hayden

## Lectures

### Frontiers in Astronomy and Astrophysics

On Monday, March 14, at 7:30 p.m., Dale Cruikshank of the NASA Ames Research Center will present an illustrated talk, "The Icy Edge of Our Solar System: Pluto and Beyond." Cruikshank will discuss the latest research regarding Pluto and NASA's plans to visit the planet.

On Monday, April 11, at 7:30 p.m., George Smoot will present an illustrated talk, "Cosmology and the Cosmic Background Explorer." Smoot, a research physicist at the Lawrence Berkeley Laboratory, will discuss new observations from the Cosmic Background Explorer satellite and how these observations reinforce the current understanding of the universe's creation and evolution.

These lectures are part of the Frontiers in Astronomy and Astrophysics series. Tickets are \$6 for Participating and Higher Members and \$8 for non-Members. For information about ticket availability and upcoming lectures call (212) 769-5900. Use the coupon at right to order tickets.

## Sky Show

### Orion Rendezvous...A Star Trek® Voyage of Discovery

Climb aboard the starship Antares for a cosmic journey. Actor LeVar Burton joins the crew as Lieutenant Commander Geordi La Forge, the character he plays on Star Trek: The Next Generation®. Enter the twenty-fourth century and learn about the variety of stars in the universe.

Showtimes:  
Mon.-Fri. ....1:30 and 3:30 p.m.  
Sat.: 11:00 a.m. (except for March 5 and April 9)  
1:00, 2:00, 3:00, 4:00, and 5:00 p.m.  
Sun. ....1:00, 2:00, 3:00, 4:00, and 5:00 p.m.  
For prices and additional information, call (212) 769-5900.

### Children's Shows

Wonderful Sky is a special Sky Show for preschoolers. Children sing along with images of their favorite Sesame Street Muppets as they learn

about rainbows, the phases of the moon, sunsets, and stars. Sat., March 5, at 10:30 a.m., and Sat., April 9, at 10:30 and 11:45 a.m. For prices and ticket information, call (212) 769-5900.

Robots in Space features Lucasfilm's R2D2 and C-3PO® and has been created especially for children ages 7 to 12. Together with a live host, these famous space robots take children on a tour of the universe. See how satellites and probes — the real space robots — help us learn about worlds near and far. Journey from the earth to other planets and distant black holes. Sat., March 5, and Sat., May 7, at 11:45 a.m. Admission for Participating and Higher Members is \$4 for adults and \$2 for children. For additional information call (212) 769-5900.

## Exhibition

### Space Places:

#### A Photographic Art Exhibit

The Planetarium presents an exciting photographic display, Space Places, by world-renowned photographer Roger Ressmeyer. The exhibition is a collection of photographs incorporating the human, mystical, and technical sides of space, with an emphasis on internationally strategic centers. The photographs highlight the latest space technologies as well as the historical and monumental centers of the international space age. On display through May 15.

## Laser Shows

Journey into another dimension where laser visuals and rock music combine to create a dazzling 3-D experience of sight and sound. Shows are presented on Fridays and Saturdays at 7:00, 8:30, and 10:00 p.m. For prices and show schedule, telephone (212) 769-5100.

It's always a good idea to call before visiting the Planetarium, since prices, programs, and showtimes are subject to change without notice. For general Planetarium information, call (212) 769-5100.

**Lecture: "The Icy Edge of Our Solar System: Pluto and Beyond."** Monday, March 14, 7:30 p.m.  
Number of Members' tickets at \$6 (no more than 4, please): \_\_\_\_  
Number of non-Members' tickets at \$8: \_\_\_\_  
Total amount enclosed: \_\_\_\_

**Lecture: "Cosmology and the Cosmic Background Explorer."** Monday, April 11, 7:30 p.m.  
Number of Members' tickets at \$6 (no more than 4, please): \_\_\_\_  
Number of non-Members' tickets at \$8: \_\_\_\_  
Total amount enclosed: \_\_\_\_

Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
Daytime telephone: \_\_\_\_\_  
Membership category: \_\_\_\_\_

Please make check payable to the Hayden Planetarium and mail with a **self-addressed, stamped envelope** to: Lecture, Hayden Planetarium, Central Park West at 81st Street, New York, NY 10024-5192.

Please note that ticket orders are subject to availability and cannot be processed without telephone number and stamped, self-addressed envelope. **Do not include ticket requests or checks for American Museum programs.**



# Sun Mon Tue Wed Thu Fri Sat

## March 1994

### American Museum of Natural History



**2** 7:45 p.m. Amateur Astronomers Association. Kaufmann Theater. Free.

**3** 7:00-8:30 p.m. Tropical Rain Forest Conservation. Kaufmann Theater. \$13.50 for Members, \$15 for non-Members. Page 6.

**4** 4:00, 5:00, 6:00, and **47:00 p.m.** Members' Tours of Sharks! Fact and Fantasy. Free, and open only to Participating and Higher Members. Tickets required. Page 8. The 4:00 and 7:00 p.m. tours are SOLD OUT.

**5** 11:00 a.m. NY Map Society. Room 319. Free. **11:30 a.m. and 1:30 p.m.** The World of Animals. Members' family program. Kaufmann Theater. \$5 for Members, \$8 for non-Members. Page 2.

**6** 11:00 a.m. and 2:00 p.m. Members' Workshop on Japanese Cuisine. Page 8.

**3:00-4:00 p.m.** Music of Germany. Concert by the Interscholl Orchestras of New York. Kaufmann Theater. Free. For further information call (212) 769-5305.

Food as Medicine. Rescheduled for April 10. For further information call (212) 769-5315.

**7** 7:00-8:30 p.m. Volcanoes: Their Eruptions and Emanations. Leonhardt People Center. \$22.50 for Members, \$25 for non-Members. Page 6.

**8**

The Museum receives substantial support from a number of major sources. We are particularly grateful to the City of New York, which owns the Museum buildings and provides funds for their operation and maintenance, and to the New York State Council on the Arts, National Science Foundation, National Endowment for the Arts, National Endowment for the Humanities, 300 corporations, 100 private foundations, 520,000 members, and numerous individual contributors

**9** 6:30 p.m. NY Mineralogical Club. Room 319. Free.

**10** 7:00 p.m. A Night Out with the Neoderals. Members' evening program. Main Auditorium. \$10 for Members, \$15 for non-Members. Page 1.

**11** 7:00 p.m. Artistic Expression in an Amazonian Culture. Members' evening program. Kaufmann Theater. \$7 for Members, \$10 for non-Members. Page 5.

**12** 10:30 a.m. Shark Tales. Children's program. Kaufmann Theater. Page 6.

**13** 2:00 p.m. NY Shell Club. Room 319. Free.

**2:00 and 4:00 p.m.** Ndepp: Traditional Lebou Healing Ceremony. Kaufmann Theater. Free. For further information call (212) 769-5315.

**14** 7:30 p.m. Frontiers in Astronomy and Astrophysics. "The Icy Edge of Our Solar System: Pluto and Beyond." Page 11.

**15** 6:30 p.m. Floating Debris in New York's Waterways: Sources, Impacts, and Control. Speaker: John P. St. John, principal engineer, HydroQual, Inc. Linder Theater. Free. For further information call (212) 769-5750.

**16**



**7:00 p.m.** NY Entomological Society. Room 319. Free.

**20** 10:30 a.m. NY Turtle and Tortoise Society. Room 319. Free.

**11:00 a.m., 12:30 and 2:00 p.m.** The Mouse in the Matzoh Factory. Members' family program. \$16 per couple, and open only to Participating and Higher Members. Tickets required. Page 2.

**2:00 p.m.** NY Paleontological Society. Room 319. Free.

**2:00 and 4:00 p.m.** Ladyfingers. Performance by jugglers. Kaufmann Theater. Free. For further information call (212) 769-5315.

**21**

**22** 7:30 p.m. Linnean Society of New York. Linder Theater. Free.

**7:00 p.m.** Invitation to Geology: A Beginner's Guide. Members' evening program, part 1. \$12 for Members, \$20 for non-Members. Page 2.

**23**

**30** 7:00 p.m. The Samartians and Shanwar Tels: Jews of India. Members' evening program. Main Auditorium. \$7 for Members, \$10 for non-Members. Page 5.

**31**

**24** 7:00 p.m. Invitation to Geology: A Beginner's Guide. Members' evening program, part 2. \$12 for Members, \$20 for non-Members. Page 2.

**7:00 p.m.** NY Microscopical Society. Room 319. Free.

**25**

**18** 4:30 and 6:00 p.m. Ecology of North America. Members' tours. \$16, and open only to Participating and Higher Members. Page 2.

**19**

**26** 1:45 p.m. Eggciting Egghabits. Sign language tours spotlighting eggs in the Museum's exhibits. Call (212) 769-5566 for further information (TTY users: 1-800-662-1220 relay).

Passover begins at sundown.

#### Too Much Mail?

The Membership Office recently mailed a letter to prospective Members asking them to join the Museum. In spite of our best efforts to remove the names of our current Members from this mailing, you may have received one of these letters. Please accept our apology. Would you consider passing the letter on to a friend? Your help in reaching new Members is greatly appreciated.



Printed on recycled paper.



# ROTUNDA

For Participating and Higher Members of the American Museum of Natural History

Vol. 19, No. 5 May 1994



*Charles Knight's restored masterpiece, Rancho La Brea Tar Pit, is an permanent display in the new Lila Acheson Wallace Wing of Mammals and Their Extinct Relatives*

## Fossil Mammal Halls Reopen This Month

**Exhibition halls open to general public: Saturday, May 14**  
**Members' preview: Friday, May 13**

This month the Museum launches its 125th anniversary celebration with the opening of two new fossil mammal halls, the first halls completed in a spectacular renovation and restructuring of the fossil exhibitions.

The renovation project, which is to be completed in 1996, will create six new halls that tell the story of vertebrate evolution with the most extensive and scientifically important array of fossils ever assembled. The two halls opening this month are known as the Lila Acheson Wallace Wing of Mammals and Their Extinct Relatives and display the world's greatest collection of fossil mammals. The dinosaurs will return next year, and in 1996 an orientation center and a hall of primitive vertebrates will debut.

Fossil exhibitions are traditionally organized on a chronological basis, leading visitors on a time line from the beginning of life 3.5 billion years ago to the present day. The Museum is

using a different approach that takes visitors on a walk through vertebrate evolution, viewing exhibits organized in the pattern of a family tree.

This approach is based on the Museum's research and its role in bringing evolutionary patterns to light. Information in the halls emphasizes the dynamic nature of science, exploring both known and speculative elements of ancient life forms and offering a variety of arguments and theories about the history of life.

### Members' Preview and Tours

On Friday, May 13, Members can take a look at *Protohippus*, a 12-million-year-old ancestor of the horse; *Andrewsarchus*, the biggest of the land-dwelling carnivorous mammals; and *Amphicyon*, a ferocious bear-dog in pursuit of the antelope-like *Ramoceros*. They'll see mastodons, saber-

toothed cats, and giant sloths on display in the Lila Acheson Wallace Wing of Mammals and Their Extinct Relatives before the new halls open to the general public.

The preview is free and open only to Participating and Higher Members upon presentation of a valid membership card. The halls will be open between 4:00 and 8:30 p.m.

On the evening of the preview Members can attend *A Look at the Building of the Fossil Halls*, a presentation by the renovation program's project director. Paleontologist Lowell Dingus has worked closely with curators in developing the halls' scientific content. He'll talk about the exhibits, which focus on the evolutionary roots of our own group of vertebrates by illustrating how different groups of living mammals evolved into a vast array of body types throughout the world. Dingus will also offer some background on how the halls were

designed and built.

The program will take place at 7:30 p.m. in the Henry Kaufmann Theater. Tickets are free and available only to Participating and Higher Members. No more than two tickets per membership can be ordered for this program. Use the May Members' programs coupon on page 3 to order tickets.

On Friday, June 10, Participating and Higher Members can take guided tours of the Wallace Wing. Volunteer Highlights Tour guides will lead them around the new halls and discuss the specimens and the manner in which they are displayed. The tours, which are appropriate for ages 13 and older, are free and will take place at 4:00, 5:00, 6:00, and 7:00 p.m. Use the coupon on page 3 to register, and see page 2 for details of other Members' programs presented in conjunction with the opening of the new exhibition halls.



# The Treasure of Trash

Saturday, June 11

11:00 a.m. and 1:00 p.m.

\$20 per couple, and open only to Participating and Higher Members

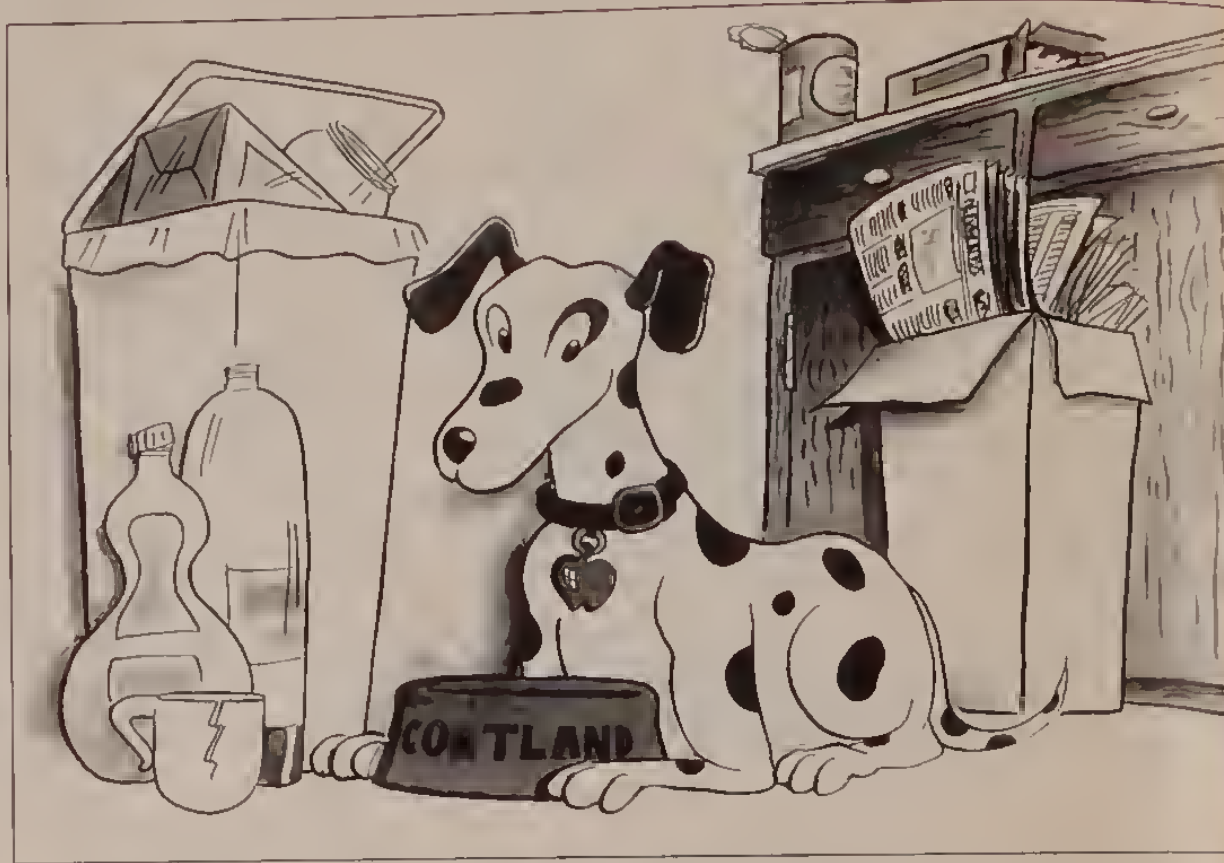
Appropriate for ages 5-10

Each week, millions of people carefully separate their trash and put it outside to be picked up and taken to recycling centers. But most people — especially children — don't really know what happens to their empty plastic bottles once they're taken away.

Linda Mandel and her daughter, Hedi Yorkes, teamed up to write *The Treasure of Trash: A Recycling Story*, a children's book that focuses on plastics and other products and how they are

recycled. The pair will host a Members' family program at which they'll discuss recycling and the environment. They'll offer demonstrations of plastic recycling and the creation of plastic lumber, and they'll read highlights from their book. Each couple attending the program will receive a copy of *The Treasure of Trash*, an illustrated 44-page book that sells for \$12.95.

Use coupon on page 5 to order tickets, which are available only by mail.



Members' Day Trip to

## The Newark Museum

Thursday, June 2

Noon-5:00 p.m.

\$40, and open only to Participating and Higher Members  
Appropriate for ages 16 and older

New Jersey's largest museum complex, the Newark Museum houses world-renowned art and science collections. Members can take docent-led tours of the museum's collection of twentieth-century American art and see a major traveling exhibition of photographs.

*American Art in the Modern Era* explores the world of



George Segal's 1968 sculpture "The Parking Garage"

twentieth-century art as expressed in the museum's collection of American painting and sculpture. *I Dream a World: Portraits of Black Women Who Changed America* is a temporary exhibition of black-and-white portraits by Pulitzer Prize-winning photographer Brian Lanker, who captured the indomitable spirit of 76

African-American women in fields ranging from medicine to government to sports.

Each tour will last about an hour, and afterward Members will have another hour in which to explore on their own. Transportation is by bus from the American Museum. Use the coupon on page 5 to order tickets, which are available only by mail.

## Favorite Stories

Wednesday, June 8

7:00 p.m.

Kaufmann Theater

\$8 for Members, \$12 for non-Members

Central figures in the revival of storytelling in America, Gioia Timpanelli and Diane Wolkstein are masters of their art. They have delighted audiences throughout the United States with their folktales, myths, and personal stories. At the Members' program *Favorite Stories* they'll recount stories of forests, mountains, and cities; stories full of surprises and humor; and adventure stories that are journeys into the interior.

Gioia Timpanelli won the Women's National Book Association Award for her work in the oral tradition; she also won

two Emmies for her television series "Stories from My House." She has just compiled a book of short stories based on Sicilian folktales.

Diane Wolkstein, who has 25 years of storytelling experience, is the author of 17 books of folklore, including *Inanna* and *The First Love Stories*. Her newest book is *Step by Step*. She teaches storytelling at Bank Street College and was recently featured on "Charles Kuralt Sunday Morning."

Use the May Members' programs coupon on page 3 to register.

## Origami Theater

Wednesday, June 15

3:30 p.m.

Linder Theater

\$5 for Members, \$8 for non-Members

Come to one of the smallest theaters in the world: a diminutive stage with just enough room for a pair of hands and a sheet of paper. The hands move deftly to transform the paper into a swan or a fox, a peacock or a star. Then the head and heart that are in charge of the

hands appear to tell a little story or fable about the figure they've just created.

Marieke de Hoop has taken her origami theater from her home in Holland to audiences in England, France, Germany, Canada, and Japan. The people who watch her folding fingers experience the same

thrill that origami artists feel every time they pick up a sheet of paper to fold a crane or a stegosaurus or any of an infinite variety of figures. This thrill is a feeling Marieke calls *orikadabra*.

Use the May Members' programs coupon on page 3 to register.

## Members' Cruise on Long Island Sound

Saturday, May 7, Noon-4:00 p.m.

\$50 for Members, \$60 for non-Members

Spend a spring afternoon speeding along Long Island Sound on this Members' cruise. Participants will travel up the East River, through Hell Gate, and beneath the Throgs Neck Bridge into the sound. They'll view both the New York and Connecticut shorelines on the way to New Haven Harbor and back.

Sidney Horenstein, the

Museum's coordinator of environmental public programs, will host the cruise and point out landmarks along the way. He'll discuss the origins of the sound, the geology of the shorelines, and the history of some of the towns.

Bring a bag lunch; refreshments are available on board. Call (212) 769-5606 for ticket availability.



# Calling All Hippos

Thursday, June 30  
7:00 p.m.  
Kaufmann Theater  
\$8 for Members,  
\$12 for non-Members

Little had been written about the social organization or underwater behavior of hippos when William Barklow traveled to Tanzania in 1989 to record their vocal repertoire. Informal observations had convinced him that hippos can communicate with each other in a unique way.

At the Members' program *Calling All Hippos*, Barklow will discuss his findings, which indicate that hippos have developed a system for communicating in an amphibious environment. They can trans-



William Barklow

mit sounds in stereo through both air and water and can receive sounds in stereo, with their jaws serving as an underwater channel and their ears as a surface channel. Their vocal sounds communicate subtle information in both air and water, and they have specialized underwater signals, including click trains

similar to those employed by dolphins and whales.

A professor in the Biology Department of Framingham State College in Massachusetts, William Barklow has studied loon vocalizations in northern Maine for two decades. Use the May Members' programs coupon on page 3 to register.

## Members' Walking Tour

# Prominent Geological Features of Central Park

Wednesday, May 25  
3:00, 5:00, and 7:00 p.m.  
\$20, and open only to Participating and Higher Members  
Appropriate for ages 16 and older

Some of New York City's best rock exposures can be found in Central Park. These rocks display many features, large and small, that help geologists decipher the city's one-billion-year history.

Sidney Horenstein, the Museum's coordinator of environmental public programs, will lead Members around the southern end of the park to observe the effects of ancient continental

collisions and the striations and grooves etched by a (relatively) recently departed glacier.

Use the coupon below to register; tickets are available only by mail.

# Global Cultures in a Changing World

The Education Department presents a year-long series reflecting a variety of cultural groups and their traditions in a changing world. May is Asian/Pacific American Heritage Month. For additional information or a brochure, call (212) 769-5315.

## Sumi-E, Japanese Brush Painting Sunday, May 15

At this workshop for adults, Motoi Oi teaches beginners the basic techniques of painting with ink and brush. He'll show more advanced students how to create a landscape with birds, flowers, and waterfalls. Noon-2:00 p.m. Calder Laboratory, second floor.

Free tickets will be distributed on the day of the workshop, starting at 10:30 a.m., on a first-come, first-served basis in the Leonhardt People Center. Only two tickets per adult in line.

## Yoshiko Chuma and the School of Hard Knocks Sunday, May 22

Choreographer Yoshiko Chuma and the School of Hard Knocks present a contemporary work based on the traditional Japanese concept

of space and time. The movement and music collide in counterpoint and harmony, and the *ma* ("musical interval") bears as much weight as the music and movement.

The company of versatile performers dance, play instruments, and sing in an atmosphere of continuous motion and cacophony — like an orchestra playing three symphonies at once. At one moment all action stops, and the space echoes profoundly with the silence of anticipation. 2:00 and 4:00 p.m. Kaufmann Theater.

## Wilderness: Pan Asian Repertory Theatre Sunday, May 29

Pan Asian Repertory Theatre presents excerpts from *Wilderness*, the third in a trilogy of plays by Chinese playwright Cao Yu. The play, which stylistically resembles the work of Eugene O'Neill, involves betrayal, revenge, and love in its portrayal of the Chinese class struggle in the early twentieth century. The highly suspenseful and erotic plot addresses social themes — freedom versus oppression, modernization versus feudalism — and carries a

pertinent message to audiences around the world. 2:00 and 4:00 p.m. Kaufmann Theater.

## Leonhardt People Center Weekend Family Programs 1:00-4:30 p.m.

Demonstrations and performances are repeated several times during the afternoon. No tickets are necessary, but seating is limited and on a first-come, first-served basis. The People Center is closed on May 7 and 8 for Mother's Day weekend.

### May 14 and 15

*Songs from Vietnam.* Accompanying herself on the *dan tranh*, a 16-string zither, Phung Pham sings traditional songs usually performed at parties and state functions in Vietnam.

### May 21 and 22

*Na Hula O Hawai'i Nei (The Dances of Hawaii).* Radio Hula and Company demonstrate both the modern and ancient hula and show how the dance has preserved the history and customs of the Hawaiian people.

### May 28 and 29

*Yellow Peril — Take Back the Word.* The group Yellow Peril uses rap to speak about stereotypes surrounding Asian Americans, including violence; martial-arts films; and Asian-American history.

## Members' Walking Tour

# Chinatown's Herb Markets

Sunday, May 15  
3:00-5:30 p.m.  
\$20, and open only to Participating and Higher Members  
Appropriate for ages 16 and older

SOLD OUT from previous issue

Herbal treasures abound in the narrow streets of Chinatown — if you know where to look for them. Spend a Sunday afternoon on a guided tour of Chinatown's open markets and herbal shops. You'll find out where to obtain floral and spice teas to treat sore throats, headaches, and common colds.

The tour will cover a variety of Chinese cultural traditions, trace the historical development of New York's Chinatown, and explore the current economic boom in the three Chinas — Hong Kong, Taiwan, and the People's Republic. Participants will meet at the center of Chinatown in a park at the corner of Baxter and Bayard Streets. They'll stop by the

Chinatown History Museum, located at the corner of Bayard and Mulberry, and they'll also visit several herb and food shops, clothing and martial-arts boutiques, and a Buddhist temple.

Along the way Members will encounter colorful street vendors and outdoor fortune tellers and shoemakers. The tour will conclude near a statue of Confucius at a Chinese restaurant, where participants may wish to stay for dinner (ticket price does not include dinner).

Letha Hadadi, an acupuncturist-herbalist, will lead the tours. No previous knowledge of herbs is necessary; just bring a curiosity about the hidden riches of this lively and colorful part of the city.

The programs presented by the Education Department are made possible by the gifts from the Lila Acheson Wallace Fund at the New York Community Trust, Henry Nias Foundation, Inc., the Lavanburg Corner House, the Vidda Foundation, Maricano Foundation, Samuel and May Rubin Foundation, William Randolph Hearst Foundation, Howard Hughes Medical Institute, S.H. and Helen R. Scheuer Family Foundation, Inc., Norman and Rosita Winston Foundation, Chase Manhattan Bank, Citicorp/Citibank, Chemical Bank, New York State Council on the Arts, Edward S. Moore Foundation, Inc., and the family of Frederick H. Leonhardt.

**Membership Workshops and Tours.** Use this coupon to register for *Mammaliania!*, *Deciphering the Human Skeleton*, *Trip to the Newark Museum*, and *Members' Fossil Reproduction Workshop* (specify *Woolly Mammoth Tooth or Fossil*). Indicate a first and second choice of times for *Central Park Tours* and *The Treasure of Trash* and a first and second choice of times for seatings at the *Sipán Dinner*.

Name(s) of program(s): \_\_\_\_\_

\_\_\_\_\_

Number of tickets and price (please indicate which program if more than one): \_\_\_\_\_

Total amount enclosed: \_\_\_\_\_

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Daytime telephone: \_\_\_\_\_

Membership category: \_\_\_\_\_

Please make check payable to the American Museum of Natural History and mail with a **self-addressed, stamped envelope** to: *Workshops and Tours*, Membership Office, American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192.



New Exhibition in the Library Gallery

## The World Explored: 125 Years of Collecting Photographs



Explorer Oso Johnson, a prolific contributor to the Museum's archives

The American Museum has used photography and cinematography since its founding in 1869. The Museum not only collected photographs from well-known photographers around the world but also used the camera as an essential tool in documenting expeditions, cultures, artifacts, fauna, and habitats.

Today the Library has over one million images and over 3,000 reels of film that constitute a scientific and historical record from the middle nineteenth century to the present. *The World Explored: 125 Years of Collecting Photographs* focuses on three elements of the collection:

Albert Bickmore and the use of photographs in the

Education Department. The Museum's photo collection started in the Education Department as a resource for lecturers, scientists, and teachers. Bickmore, the Museum's founder, amassed over 80,000 images, most of which were made into lantern slides and used in educational programs. Exhibits illustrate the creation and growth of the collection and include photos of Bickmore, his correspondence with well-known photographers, and numerous lantern slides.

Collecting. Some of the collection's important photographs are displayed, such as the earliest image in the collection: a July 1840 calotype of flowers. Other displays include the spectacular

William H. Bradford Arctic photographs from the 1880s and the historically valuable Joseph Dixon Native American images from the Wanner Expedition.

Use of photography by the Museum. Photographs documenting the Museum's expeditions are displayed, including images from the Central Asiatic Expeditions; panoramic photographs taken in Africa by Carl Akeley; and photographs from the Johnson expeditions to Africa and Borneo.

The exhibition will be on display through January of next year. The Library Gallery is located on the fourth floor and open from Monday through Friday, from 10:00 a.m. to 4:30 p.m.

## Beijing to Hanoi Rail Journey

From October 25 to November 12, Discovery Tours is chartering the *China Orient Express* for an exciting new itinerary. This train journey offers a unique look at rural China and the fascinating but less-frequented provinces of the south — Shanxi, Sichuan, Yunnan, and the Autonomous Region of Guangxi-Zhuang. It will also explore the Red River Valley in northern Vietnam, which stretches from the border to the Gulf of Tonkin, the cradle of Vietnamese civilization.

From Beijing, China's capital since the days of Kublai Khan, travel to Xi'an, ancient capital and site of the spectacular terra-cotta army of China's first emperor, and to Changdu to observe efforts to save the rare giant panda of Sichuan's mountain forests from extinction. Take one of the country's most amazing train rides, from Changdu to Kunming, which traverses hundreds of mountain tunnels and bridges over steep gorges. While in Kunming, home to more than two dozen ethnic groups, visit the

Stone Forest and its 200 acres of naturally eroded limestone pillars, surrounded by unspoiled countryside, and see Guilin, whose misty, round-topped mountain landscape has been immortalized by painters and poets over the centuries.

The train crosses the Vietnamese border into Hanoi, the 1,000-year-old capital. The city bears remnants of early Vietnamese dynasties, along with colonial buildings and broad avenues that are legacies of the French. This crossing from China into Vietnam comes at the perfect time to witness the country's opening to the West, which is certain to proceed at a quickening pace now that the United States has lifted its trade embargo.

Accompanying the tour are experts in Chinese history, art, and archeology, as well as Ross MacPhee, a curator in the Department of Mammalogy who has conducted fieldwork in China. For more information, call Discovery Tours at (800) 462-8687 or in New York State (212) 769-5700.

## Friends of Fishes

The following programs are presented by Friends of Fishes. To order tickets, make your check payable to Friends of Fishes/AMNH and send with a stamped, self-addressed envelope to: Friends of Fishes, Department of Ichthyology, American Museum of Natural History, 79th Street and Central Park West, New York, NY 10024-5192. For further information call (212) 289-3605 or fax (212) 360-6625.

### Seining Hudson River Fishes Saturday, May 14

Members of Friends of Fishes, the Hudson River

Foundation, and the Museum's Department of Ichthyology will host a day of fishing, eating, and learning at George's Island on the Hudson River near Croton, New York.

Participants will wade into the water and use seining nets to help gather fish from the Hudson. Museum scientists will help identify the catch and discuss the variety of local fishes and their life cycles, illustrating their talks with cleaned and stained specimens from the Museum's collections. Chris Letts of the Hudson River Foundation will officiate at a traditional shad bake, nailing the fish to white oak planks for baking and smoking over an open fire.

The trip will take place from 9:00 a.m. to 5:00 p.m. Tickets are \$60 and available only to Participating and Higher Members; ticket price includes lunch and transportation from the Museum.

### Breakfast by the Sea Sunday, May 22

Private tours of the Aquarium for Wildlife Conservation feature a feeding of the sharks and marine mammals and a lecture by director Louis Garibaldi. The program begins at 8:00 a.m.; tickets are \$50 each.

### Clearwater Sunset Sail Monday, June 27

Observe the beginning of summer on a cruise of New York Harbor aboard the *Clearwater*. The cruise will embark from South Street Seaport and last from 6:00 to 9:00 p.m. Cocktails and a cold buffet will be served. Dress is casual. Tickets are \$100 per person, and space is limited to 40 guests. Proceeds benefit research by the Department of Ichthyology.

SPRING IS HERE

## Celebrate

### Mother's Day Sunday, May 8th

#### Holiday Buffet 11am - 4pm

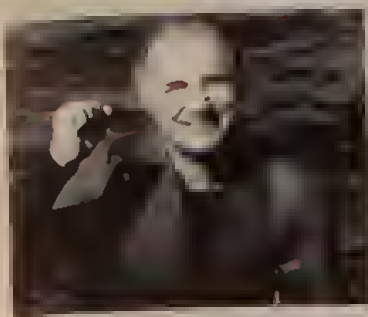
Adults \$16.95 Children under 10, \$8.95  
Reservations suggested

Call the Garden Cafe at 212-769-5863  
Located on the Lower Level

GARDEN CAFE  
AMERICAN MUSEUM OF NATURAL HISTORY



# Naturemax



**Rodney Fox, diver extraordinaire, in Search for the Great Sharks**

The new IMAX film *Search for the Great Sharks* takes viewers on an incredibly exciting underwater cinematic experience. They'll go on a round-the-globe expedition to discover some of the world's largest sharks and to observe them at close range. Blue sharks, whale sharks, and the notorious great white shark are pursued from the coast of California to the remote reaches of southern and western Australia.

Dramatic sequences include a swim alongside the seldom-seen 40-foot-long whale shark, the birth of a baby shark, the annual blossoming of a coral reef, and a gripping scene in which a diver, encased in a transparent tube, is encircled by sharks.

Showtimes for *Search for the Great Sharks* are 10:30 and 11:30 a.m., 1:30 and 3:30 p.m. daily. *To the Limit*, an exploration of the adaptation of the human mind and body to conditioning for outstanding physical performance, is shown at 12:30, 2:30, and 4:30 p.m.

On Friday and Saturday at 6:00 and 7:30 p.m., *Search for the Great Sharks* is shown on a double bill with *To the Limit*. Schedules and prices are subject to change without notice. Call (212) 769-5650 for further information.

Admission (Participating and Higher Members): Adults: \$4 single feature; \$5.50 double feature Children: \$2 single feature, \$3 double feature

# Museum Notes

**Hours**

**Exhibition Halls**  
Mon.-Thurs. & Sun. .... 10:00 a.m.-5:45 p.m.  
Fri. & Sat. .... 10:00 a.m.-8:45 p.m.

**The Museum Shop**  
Mon.-Thurs. & Sun. .... 10:00 a.m.-5:45 p.m.  
Fri. & Sat. .... 10:00 a.m.-7:45 p.m.

**The Junior Shop**  
Mon.-Fri. .... 10:00 a.m.-4:45 p.m.  
Sat. & Sun. .... 10:00 a.m.-5:45 p.m.

**The Museum Library**  
Tues.-Fri. .... 11:00 a.m.-4:00 p.m.

**The Discovery Room**  
Passes are distributed at the first-floor information desk beginning at 11:45 a.m. Ages 5-10. Children must be accompanied by an adult. Closed on holidays and weekdays.  
Sat. & Sun. .... Noon-4:30 p.m.

**The Natural Science Center**  
For children of all ages and their families. Closed on Mondays and holidays.  
Tues.-Fri. .... 10:30 a.m.-12:30 p.m. & 2:00-4:30 p.m.  
Sat. & Sun. .... 1:00-4:30 p.m.

**Museum Dining**

**Diner Saurus Fast Service Eatery**  
Daily .... 11:00 a.m.-4:45 p.m.

**Garden Cafe**  
Reservations: (212) 769-5865  
Lunch: Mon.-Fri. .... 11:30 a.m.-3:30 p.m.  
Dinner: Fri. & Sat. .... 5:30-7:30 p.m.  
Brunch: Sat. & Sun. .... 11:00 a.m.-4:00 p.m.

**Whale's Lair**  
Fri. .... 3:00-8:00 p.m.  
Sat. .... Noon-8:00 p.m.  
Sun. & most holidays .... Noon-5:00 p.m.

Snack Carts (at 77th Street & on the first floor of the Roosevelt Memorial Hall)  
Sat. & Sun. .... 11:00 a.m.-4:00 p.m.

**Entrances**  
During Museum hours visitors can enter the building through the 77th Street entrance, the parking lot entrance (81st Street), or the Roosevelt Memorial Hall entrance (79th Street and Central Park West). **Visitors attending programs after hours can enter the building through the driveway entrance at 79th Street and Central Park West.**

**Parking**  
The Museum's parking lot is located on 81st Street between Central Park West and Columbus Avenue. Space is limited and available on a first-come, first-served basis; fees are \$12 for cars and \$11 for buses. The lot is open from 9:30 a.m. to 9:30 p.m. on Sunday through Thursday and from 9:30 a.m. to midnight on Friday and Saturday. Hertz Manhattan, located one block away from the Museum at 210 West 77th Street (between Broadway and Amsterdam), offers parking discounts to Members; on Monday through Friday they receive a \$2 discount off regular prices and on Saturday and Sunday Members receive a \$3 discount. Call the Membership Office at (212) 769-5606 for information about alternative parking.

**Birthday Parties**  
Theme parties for young Members 5-10 years old are two hours long and held at 3:30 p.m. on Wednesdays, at 4:00 p.m. on Fridays, and at 11:00 a.m. or 2:30 p.m. on weekends. The group should be no fewer than 10 and no more than 20. The fee is \$275 plus \$15 per child. (The cost includes all materials, juice, ice cream, and favor bags. The cake is not included.) Call (212) 769-5606 for further information.

# Happenings at the Hayden

## Lectures

**Frontiers in Astronomy and Astrophysics**  
On Monday, May 23, at 7:30 p.m., David Levy of the Lunar and Planetary Laboratory of the University of Arizona will present an illustrated talk, "The Great Jupiter-Comet Crash of 1994." Levy is a co-discoverer of Comet Shoemaker-Levy 9, which is due to hit Jupiter in late July. He will discuss his findings and the comet's collision course.

The Jupiter-comet crash will be further discussed on Monday, June 6, at 7:30 p.m. Kevin Zahnle of the NASA Ames Research Center will talk about the significance of the collision. For ticket information call (212) 769-5900.

These lectures are part of the *Frontiers in Astronomy and Astrophysics* series. Tickets are \$6 for Participating and Higher Members and \$8 for non-Members. For information about ticket availability call (212) 769-5900. Use the coupon at right to order tickets.

On Thursday, May 5, at 7:30 p.m., meteorologist Joe Rao will present an illustrated talk about the May 10 solar eclipse. The lecture will take place in the Planetarium's Sky Theater. Tickets are \$6 for Participating and Higher Members and \$8 for non-Members and will be available at the Planetarium box office beginning at 6:30 p.m. on the night of the talk. For additional information call (212) 769-5900.

## Solar Eclipse Day

On Tuesday, May 10, weather permitting, the Planetarium will set up telescopes outside for safe viewing of the solar eclipse. For additional information, call (212) 769-5900.

## Sky Shows

**Orion Rendezvous...A Star Trek® Voyage of Discovery**  
Climb aboard the starship *Antares* for a cosmic journey. Actor LeVar Burton joins the crew as Lieutenant Commander Geordi La Forge, the character he plays on *Star Trek: The Next Generation*®.

Enter the twenty-fourth century and learn about the variety of stars in the universe.

**Showtimes:**  
Mon.-Fri. .... 1:30 and 3:30 p.m.  
Sat. .... 11:00 a.m. (except for May 7 and June 4)  
1:00, 2:00, 3:00, 4:00, and 5:00 p.m.  
Sun. .... 1:00, 2:00, 3:00, 4:00, and 5:00 p.m.

Admission is \$4 for adult Participating and Higher Members and \$2 for Members' children ages 2 to 12. For additional information and non-Members' prices, call (212) 769-5100. Please note that prices and schedule are subject to change without notice.

## Children's Shows

**Wonderful Sky** is a special Sky Show for preschoolers. Children sing along with images of their favorite Sesame Street Muppets as they learn about rainbows, the phases of the moon, sunsets, and stars. Sat., May 7, at 10:30 a.m., and Sat., June 4, at 10:30 and 11:45 a.m. For prices and ticket information, call (212) 769-5900.

**Robots in Space** features Lucasfilm's R2D2 and C-3PO® and has been created especially for children ages 7 to 12. Together with a live host, these famous space robots take children on a tour of the universe. See how satellites and probes — the real space robots — help us learn about worlds near and far. Journey from the earth to other planets and distant black holes. Sat., May 7, and Sat., July 9, at 11:45 a.m. For prices and ticket information call (212) 769-5900.

## Exhibition

**Space Places: A Photographic Art Exhibit**  
The Planetarium presents an exciting photographic display, *Space Places*, by world-renowned photographer Roger Ressmeyer. The exhibition is a collection of photographs incorporating the human, mystical, and technical sides of space, with an emphasis on internationally strategic places. The photographs highlight the latest space technologies as well as the historical and monumental centers of the international space age. On display through May 15.

## Laser Shows

Journey into another dimension where laser visuals and rock music combine to create a dazzling 3-D experience of sight and sound. Shows are presented on Fridays and Saturdays at 7:00, 8:30, and 10:00 p.m. For prices and show schedule, telephone (212) 769-5100.

**It's always a good idea to call before visiting the Planetarium, since prices, programs, and showtimes are subject to change without notice. For general Planetarium information, call (212) 769-5100.**

**Lecture: "The Great Jupiter-Comet Crash of 1994."** Monday, May 23, 7:30 p.m.

Number of Members' tickets at \$6 (no more than 4, please): \_\_\_\_\_

Number of non-Members' tickets at \$8: \_\_\_\_\_

Total amount enclosed: \_\_\_\_\_

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Daytime telephone: \_\_\_\_\_

Membership category: \_\_\_\_\_

Please make check payable to the Hayden Planetarium and mail with a **self-addressed, stamped envelope** to: Lecture, Hayden Planetarium, Central Park West at 81st Street, New York, NY 10024-5192.

Please note that ticket orders are subject to availability and cannot be processed without telephone number and stamped, self-addressed envelope. **Do not include ticket requests or checks for American Museum programs.**



**Sun**

Last chance to see *Sharks!*  
*Fact and Fantasy* in Gallery 3.

**Mon**

**2**

**3** 7:00-8:30 p.m. *Thor She Blows: A History of Whaling.* For information call the Education Department at (212) 769-5310.

**Tue**

**Wed**

**4** 7:45 p.m. *Amateur Astronomers Association.* Kaufmann Theater. Free.

**Thu**

**5** 7:30 p.m. An illustrated talk in the Planetarium Sky Theater looks at the upcoming solar eclipse. \$6 for Members, \$8 for non-Members. Page 7.  
**7:30 p.m.** *Alive in an Urban Harbor.* Kaufmann Theater. \$10 for Members, \$12 for non-Members. Call (212) 769-5750 for further information.

**Fri**

**6** 7:00 p.m. *Restoration of the Charles Knight Murals.* Members' evening program. Kaufmann Theater. \$6 for Members, \$9 for non-Members. Page 2.

**Sat**

**7** 10:30 a.m.-3:00 p.m. *Bird Identification for the Beginner.* Limited to 25 adults. \$50. For information call the Education Department at (212) 769-5310.  
**11:00 a.m.** NY Map Society. Room 319. Free.  
**Noon-4:00 p.m.** *Members' Cruise on Long Island Sound.* \$50 for Members, \$60 for non-Members. Page 4.

## May 1994 American Museum of Natural History

**9**

**8** Mother's Day.  
**11:00 a.m.-6:00 p.m.**  
*Marbling: An Ancient Paper Craft.* Call (212) 769-5310 for information.  
**2:00 p.m.** NY Shell Club. Room 319. Free.



**10** Solar eclipse. The Planetarium will set up telescopes for safe viewing (weather permitting). Call (212) 769-5900 for further information.

**11** 6:30 p.m. NY Mineralogical Club.  
Room 319. Free.

**12**

**13** 4:00-8:30 p.m. *Members' Preview of the Wallace Wing.* Free, and open only to Participating and Higher Members. Page 1.  
**7:30 p.m.** *A Look at the Building of the Fossil Halls.* Members' evening program. Kaufmann Theater. Free, and open only to Participating and Higher Members. Page 1.

**14** 9:00 a.m.-5:00 p.m. *Seining Hudson River Fishes.* Page 6.  
**1:00-4:30 p.m.** *Songs from Vietnam.* Leonhardt People Center. Free. Page 5.  
**Weekend for Bird Enthusiasts.** Limited to 36 adults. \$175 (double occupancy). For information call the Education Department at (212) 769-5310.

**15** 1:00-4:30 p.m. Leonhardt People Center. Free.

**16**

**2:00 p.m.** NY Paleontological Society. Room 319. Free.  
**3:00-5:30 p.m.** *Members' Walking Tour: Chinatown's Herb Markets.* \$20, and open only to Participating and Higher Members. Tickets required. Page 5.  
**SOLD OUT**

**17** 7:00 p.m. NY Entomological Society.  
Room 319. Free.

**18** 7:00-8:30 p.m. *Conservation in the 21st Century: An Evening with Richard Leakey.* Main Auditorium. \$19 for Members, \$29 for non-Members. For information call the Education Department at (212) 769-5310.

**19** 7:00 p.m. NY Microscopical Society.  
Room 319. Free.

**20** 4:00-6:00 p.m. *Molding and Casting a Woolly Mammoth Tooth.* Members' workshop. \$35. Members' only to Participating and Higher Members. Tickets required. Page 2.

**21** 9:00 a.m.-2:00 p.m. *Mammalmania! Members' family programs.* \$12, and open only to Participating and Higher Members. Page 2.  
**1:00-4:30 p.m.** *The Dances of Hawaii.* Leonhardt People Center. Free. Page 5.  
**1:45 p.m.** *Ancient Mammals.* Sign language tour. Free. For information call (212) 769-5566 (TTY users: 1-800-622-1220 relay).

**22** 1:00-4:30 p.m. *Na Hula O'Hawai'i Nei (The Dances of Hawaii).* Leonhardt People Center. Free. Page 5.

**23** 7:30 p.m. *Frontiers in Astronomy and Astrophysics: "The Great Jupiter-Comet Crash of 1994."* Planetarium Sky Theater. \$6 for Members, \$8 for non-Members. Page 7.

**24** 3:30 p.m. *Joey's Adventure in the Age of Mammals.* Kaufmann Theater. \$6 for Members, \$9 for non-Members. Page 2.  
**7:30 p.m.** *Linnaean Society of NY.* Linder Theater. Free.

**25** 3:00, 5:00, and 7:00 p.m. *Prominent Geological Features of Central Park.* Members' walking tour. \$20, and open only to Participating and Higher Members. Tickets required. Page 5.

**26** 6:30 p.m. *Eco-Impact Forum.* Speaker, Cyprian Cox, director, Division of Hazardous Materials Management. Department of Environmental Protection: "The Hazards of Landfills." Linder Theater. Free. For further information call (212) 769-5750.

**27**

**28** 1:00-4:30 p.m. *Yellow Peril — Take Back the Word.* Leonhardt People Center. Free. Page 5.

**29** 1:00-4:30 p.m. *Yellow Peril — Take Back the Word.* Leonhardt People Center.

**30** Memorial Day observed. The Museum is open.

### Field Class in Bird ID in Central Park

Join naturalists Stephen C. Quinn (on Tuesdays) and Harold Feinberg (on Thursdays) in observing the spring migration of birds through Central Park. Participants will learn how to identify species according to their field marks, habitat, behavior, and song. The fee for the program is

\$5, to be paid to the instructor each morning before the walk starts. There is no pre-registration. Classes meet across from the Museum on the northeast corner of Central Park West and 77th Street.  
For further information call (212) 769-5310.

### The 125th Anniversary Cultural Festival: A Gift from the Museum to the Public Saturday, June 4 — Museum admission waived for the day

In commemoration of 125 years of expeditions, explorations, and discoveries, the Museum will open its doors to the city of New York with a day-long festival celebrating cultural diversity. The festival will be held in the Museum's many exhibition halls, the Naturemax Theater, and the

Hayden Planetarium, as well as on the grounds around the institution. The festival will feature ongoing live performances of traditional music and dance, foods of the world, special appearances by celebrities, and demonstrations and workshops in the galleries. In

addition, Identification Day will be part of the day's activities from 1:00 to 4:30 p.m. Visitors are invited to bring in their mysterious treasures — any artifact, bone, or mineral — to be identified by Museum scientists. For further information call (212) 769-5315.



# POTUNDA

Vol. 19, No. 7 July/August 1994

For Participating and Higher Members of the American Museum of Natural History



© NYZS/The Wildlife Conservation Society

## Baby Belugas

Thursday, August 25  
7:00 p.m.  
Kaufmann Theater  
\$7 for Members, \$10 for non-Members

The first beluga whales born in captivity to have survived beyond the first few weeks of life made their appearance three years ago at New York's Aquarium for Wildlife Conservation. The two males were joined by a baby female last summer, and the young belugas should survive for more than 20 years.

At the Members' program *Baby Belugas* the aquarium's director, Louis Garibaldi, will show a fascinating videotape of a beluga birth. Garibaldi will discuss the importance of breeding as a conservation measure and related issues.

Approximately 65,000 belugas roam the arctic waters of Canada,

Greenland, and Alaska in a number of isolated groups, and the species is not considered endangered; however, belugas in some regions face tremendous threats from toxic pollution and subsistence hunting. The aquarium's baby belugas offer a unique opportunity to learn more about the species. Observations of their births and devel-

opment will help other aquariums establish breeding populations, and as Garibaldi notes, "The more we know about a species, the more we can help when something goes wrong in the wild."

Use the July/August Members' programs coupon on page 3 to register for the program.

## Empires Beyond the Great Wall

More than 3,500 years of Mongolian history and culture are traced at a coming exhibition. *Empires Beyond the Great Wall: The Heritage of Genghis Khan* will feature scores of artworks, many of which are on display for the first time in the West. See page 4 for details about the exhibition and a related Members' program.



Chabi, wife of Kublai Khan, photo: Morris Rossiter

## Royal Tombs of Sipán

The current Gallery 3 exhibition features gold and silver items from the richest graves ever excavated by archeologists in the Americas. These glittering artifacts offer valuable insights into the lives of the Moche, who dominated the culture of Peru's northern coast during the first millennium AD. See page 3 for details of Members' tours of the exhibition.



Necklace of golden beads, photo: Christopher Dornan



## Members' Day Trip to the Croton Reservoir

Thursday, August 4  
8:30 a.m.-5:30 p.m.

Sidney Horenstein, the Museum's coordinator of environmental public programs, will host a trip to Croton Dam. Completed in 1907, the dam was the world's highest at that time. Participants will visit a park adjacent to the dam and see the spillway. Horenstein will discuss the dam's geological setting and environmental issues affecting it.

Members will also see the new \$80-million gatehouse that controls the water's flow into aqueducts and visit the Cross River Dam.

The dam is located in Croton-on-Hudson in Westchester County. Transportation will be by bus from the Museum, and participants should be sure to wear comfortable clothes and bring a bag lunch. Tickets are \$50 and available only by mail to Participating and Higher Members. Use the coupon on page 5 to register, and please note that the trip is appropriate for participants ages 16 and older.

## Members' Day Trip

## How Water Works

Thursday, July 28  
8:30 a.m.-5:30 p.m.

Explore the city's water supply system, a marvel of modern-day engineering that provides the best-quality municipal water in the world.

Members will begin the trip with an extensive tour of the North River Pollution Control Plant and then travel to the Bronx for a tour of the Jerome Park Reservoir and Pilot Filtration Plant, where they'll view part of the Third Water Tunnel and descend more than 200 feet below Van Cortlandt Park to observe the internal water works. The trip will conclude at Hillview Reservoir.

Representatives from the Department of Environmental Protection will be on hand at all of the sites to explain aspects of the system, and Sidney Horenstein, the Museum's coordinator of environmental public programs, will lead the tours from start to finish.

Tickets are \$50 each and available only to Participating and Higher Members. The fees for this program are for transportation and educational presentations only; there is no admission charge for tours of the sites. No food will be available on the tours, so be sure to bring a bag lunch and beverages.

Use the coupon on page 5

to register for the trip, which is appropriate for participants ages 16 and older, and please note that tickets are available only by mail.

## From Quarry to Quonset

Thursday, August 18  
8:00 a.m.-8:00 p.m.

Members will see how granite is quarried and fashioned into handsome slabs on a day trip to Stony Creek Granite Quarry and Quonset, Rhode Island. They'll literally follow the entire process, beginning with the extraction of the raw materials from the earth and ending with polished granite.

Sidney Horenstein, the Museum's coordinator of environmental public programs, will host the trip, which begins with a bus ride to Connecticut's Stony Creek Granite Quarry. Visitors will see how the quarry's pink granite is excavated with both traditional and modern techniques, and they'll learn about its geological setting.

Members will travel along with the stone blocks from the quarry to a plant in Quonset Point, Rhode Island. There, they'll watch as the blocks are cut and shaped and a variety of finishes are applied to the stone.

The trip will take place rain or shine. Participants are advised to wear sturdy shoes that can get muddy and wet during the walks through the quarry and plant. Tickets are \$65 and available only to Participating and Higher Members. Use the coupon on page 5 to register for the trip, which is appropriate for participants ages 16 and older, and please note that tickets are available only by mail.

## Members' Day Trip to the

## NY Botanical Garden

Wednesday, July 6  
9:00 a.m.-4:00 p.m.

One of America's foremost public gardens, the New York Botanical Garden features 250 acres of dramatic rock outcroppings, a river and cascading waterfall, and 16 specialty gardens.

Participants will travel by bus from the American Museum to the Bronx, where they'll begin with a guided tour of the garden's extensive forest. After the 90-minute tour, Members can eat their bag lunches at picnic tables or purchase lunch at the historic Snuff Mill River Terrace Cafe, an 1840 New York City landmark that houses a cafeteria with an outdoor terrace.

After lunch Members can explore on their own until the departure time of 3:00 p.m.

Among the garden's many horticultural attractions are gardens of roses, perennials, and rocks, as well as outstanding collections of daylilies, orchids, hardy ferns, flowering trees, conifers, and pines. A tram, which runs every half-hour, brings riders back to the main garden.

This trip is appropriate for participants ages 16 and older. Tickets are \$40 and available only to Participating and Higher Members. Use the coupon on page 5 to register, and please note that tickets are available only by mail.

## Members' Day Trip to

## Snug Harbor and the Staten Island Zoo

Thursday, July 14  
8:30 a.m.-5:30 p.m.

A day trip to Staten Island takes Members to Snug Harbor Cultural Center for a look at its historical features and to the zoo, where they'll meet some members of the famous reptile collections.

At Snug Harbor Cultural Center participants will take a guided tour that examines the adaptive reuse and restoration of the center's 28 historic buildings. These nineteenth-century Greek Revival, Beaux-Arts, Second Empire, and Italianate buildings are used today by local cultural groups as centers for visual and performing arts.

The tours will also look at two current art exhibitions. *New Island Views*, in the Newhouse Center for Contemporary Art, features artwork from the Staten Island community. The Snug Harbor Outdoor Sculpture Exhibition, an annual event that has been acclaimed as one of the best in the country, brings together the site-specific, large-scale works of contemporary artists.

After a picnic lunch on the center's grounds Members will arrive at the Staten Island Zoo at 2:00 p.m. A zoo staffer will offer a brief history of the zoo, introduce the new Tropical Forest Wing, and take Members for a preview of the East African Savannah Wing, which is under construction. They'll also take in highlights of the world-famous Reptile Wing and have some hands-on interactions with a few of the fascinating but nonvenomous resident reptiles. The guided tour will last about an hour, and participants will have an hour and a half in which to explore the zoo on their own.

Tickets are \$45 and available only by mail to Participating and Higher Members. Use the coupon on page 5 to register, and please note that this trip is appropriate for participants ages 16 and older.

## Members' Walking Tour

## The Cathedral of St. John the Divine

Wednesday, July 20  
10:00 a.m.  
and 2:00 p.m.

**SOLD OUT**

Historian David Garrard Lowe will lead Members on an extensive tour of the world's largest Gothic cathedral, which is located on Amsterdam Avenue at West 112th Street.

Although the Cathedral of St. John the Divine is over 100 years old, one-third of the structure has yet to be built. Lowe, who is professor of architectural history at the New York School of Interior Design and director of its gallery, will focus on prominent features of the cathedral's design and construction history and its stained-glass windows, statuary, and exterior stonework. He'll also talk about the prominent New Yorkers associated with the cathedral.

Tickets for the tours, which are two hours long and appropriate for participants ages 16 and older, are \$20 and available only to Participating and Higher Members.

## Members' Walking Tour

## Back Streets of the Seaport Museum

Tuesday, July 12  
Noon and 3:00 p.m.

The city's transformation from forests and farmlands to asphalt jungle is explored on a walking tour of the South



Walking tours of St. John's

Street Seaport. Members will hear about the area's social history and architecture from a representative of the South Street Seaport Museum, an institution that's been instrumental in the preservation, restoration, and interpretation of the district.

Participants will discover old New York, the city that rose to world prominence in the nineteenth century. The walking tours will board the *Peking*, the largest sailing ship in the museum's collection, for a brief tour that will profile historic ship preservation, sailors' lives at sea, and the extraordinary contribution of maritime enterprise to the growth of American commerce and culture.

The tours will begin at the Visitors' Center with an orientation session; the walking portion of the tours will last approximately 50 minutes. Tickets are \$15 and available only by mail to Participating and Higher Members. Use the coupon on page 5 to register, and please note that the tours are appropriate for ages 13 and older.

# ROTUNDA

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July/August 1994

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## Members' Day Trip to the

### Raptor Trust

Tuesday, August 2  
9:00 a.m.-2:00 p.m.

At New Jersey's Raptor Trust injured and orphaned birds are rescued, nursed, and returned to the wild. Members can tour the facility, which is dedicated to the preservation and well-being of birds of prey and houses many of the area's resident breeding species, including red-tailed hawks, American kestrels, screech owls, and great horned owls.

The majority of the center's residents are orphaned nestling songbirds, who need almost constant care to stay healthy. The guided tour of the Raptor Trust's outdoor facilities will show how the orphaned birds are raised with techniques designed to avoid dependence on humans and give the young a reasonable chance of survival upon release.

Transportation between the Museum and the center in Millington, New Jersey, will be by bus. Be sure to dress comfortably and bring a bag lunch. Tickets, which are \$40, are available only by mail to Participating and Higher Members. Use the coupon on page 5 to register, and please note that the trip is appropriate for participants ages 8 and older.

## Members' Walking Tour

### Five Points and Chinatown

Tuesday, July 26  
Noon and 4:00 p.m.  
**SOLD OUT**

Five Points — which took its name from the five corners at the intersection of Baxter, Worth, and Park streets — was a notorious slum in the nineteenth century. Today it's part of Chinatown, and Members can join James P. Shenton, a professor of history at Columbia University, for a tour of the neighborhood and a look at how the city is built.

The tours will begin at the First Cemetery of the Spanish-Portuguese Synagogue in the City of New York, which predates both Chinatown and Five Points, and then pass by the second-oldest Catholic church in New York, St. James Church, where the Ancient Order of Hibernians was founded in 1844. Participants will traverse Chatham Square, formerly the edge of Kleine Deutschland, which grew in the 1840s with the first German immigrations, to survey the African Burial

Ground, the city's cemetery for African-Americans, in use from 1691 to 1800.

Tickets are \$20 and available only by mail to Participating and Higher Members.

## Members' Guided Tours of Sipán

Participating and Higher Members can take guided tours of the Gallery 3 exhibition *Royal Tombs of Sipán*. Volunteer Highlights Tour guides will escort Members through the gallery and talk about the stunning artifacts on display, which were found in the richest pre-Columbian tomb ever excavated by archeologists.

The tours will take place on Friday, July 22, at 6:00 (sold out), 6:30, 7:00, and 7:30 p.m. Tickets are \$3 and available only to Participating and Higher Members. (This special exhibition has an admission fee of \$4 for adult Members and \$2 for Members' children ages 2 to 12. Non-Members' admissions are \$5 for adults and \$2.50 for children.)

Tours last about an hour and are appropriate for participants ages 13 and older. Use the coupon at right to register.



Anthropomorphized spider from Sipán

## Members' Walking Tour

### The Revolution in New York

Tuesday, August 30  
3:00 and 5:30 p.m.

The British seized New York City in the summer of 1776, and they stayed in control for seven years and destroyed one-third of the city during their occupation. Historian Peter Laskowich will walk with Members around some of New York's landmark buildings and point out vestiges of the city's role in the Revolutionary War.

Tickets are \$20 and available only by mail to Participating and Higher Members. Use the coupon on page 5 to register for the 90-minute tours, and please note that they are appropriate for participants ages 16 and older.

## Members' Day Trip to a

### Pennsylvania Coal Mine

Saturday, Sept. 24  
7:30 a.m.-7:30 p.m.  
\$60, and open only to Participating and Higher Members

Members can explore some of the Northeast's major geological provinces with Sidney Horenstein, the Museum's coordinator of environmental public programs.

They'll board a bus at the Museum and travel across New Jersey to the spectacular Delaware Water Gap, where Horenstein will describe the water gap's origins and geology. The journey continues across the Pennsylvanian Appalachians, where the group will enter both subsurface and open-pit mines on coal trains. Retired coal miners will be on hand to discuss their experiences.

The trip will include a tour of a "ghost" town that is being evacuated because the coal mine beneath the town is on fire and represents a hazard to residents.

Tickets are \$60 and available only to Participating and Higher Members ages 16 and older. Use the coupon on page 5 to register for the trip, and please note that tickets are available only by mail.

## Members' Walking Tour

### The Jewish Lower East Side

Wednesday, August 24  
11:00 a.m. and 3:00 p.m.

*The Jewish Lower East Side: A Heritage Tour* takes Members on a walk around this historic neighborhood to explore the communities established by East European, Sephardic, and German Jews. A costumed actor will lead the tour, showing participants the Lower East Side at the turn of the century as seen through the eyes of the immigrant Scheinberg family. Stops on the tour include the Jewish Daily Forward Building, the Educational Alliance, and the Rabbi Jacob Joseph Yeshiva.

This walking tour is presented in cooperation with the Tenement Museum. Chartered in 1988, the museum seeks to promote tolerance and bring a historical perspective to the variety of immigrant experiences on the Lower East Side.

The two-hour tours are appropriate for participants ages 13 and older and will take place rain or shine. Tickets are \$20 and available only to Participating and Higher Members. Use the coupon on page 5 to register, and please note that tickets are available only by mail.

# July/August Members' Programs Coupon

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Daytime telephone: \_\_\_\_\_

Membership category: \_\_\_\_\_

Total amount enclosed: \_\_\_\_\_

Please make check (if applicable) payable to the American Museum of Natural History and mail with a **self-addressed, stamped envelope** to: *July/August Members' Programs*, Membership Office, American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192. **Telephone reservations are not accepted. No refunds or exchanges.**

**Unless otherwise indicated, no more than eight tickets may be ordered for a program. Participating Members are entitled to four tickets per program at the Members' price, Higher Members are entitled to six tickets, and Associate Members are entitled to one ticket.**

**Members' Guided Tours of Sipán.** Friday, July 22. Please indicate a first, second, and third choice of times: \_\_\_\_\_ 6:30 p.m. \_\_\_\_\_ 7:00 p.m. \_\_\_\_\_ 7:30 p.m. Number of Members' tickets at \$3 (no more than 2, please): \_\_\_\_\_ Total amount enclosed for program: \_\_\_\_\_

**Baby Belugas.** Thursday, August 25, 7:00 p.m. Number of Members' tickets at \$7: \_\_\_\_\_ Number of additional tickets at \$10: \_\_\_\_\_ Total amount enclosed for program: \_\_\_\_\_

**Aussie Porta Puppets.** Sunday, September 11, 1:30 p.m. Number of Members' tickets at \$6: \_\_\_\_\_ Number of additional tickets at \$8: \_\_\_\_\_ Number of free grandparents' tickets (1 free ticket for each purchase): \_\_\_\_\_ Total amount enclosed for program: \_\_\_\_\_

**Stories and Songs for the New Year** Tuesday, September 13, 7:00 p.m. Number of Members' tickets at \$15: \_\_\_\_\_ Number of additional tickets at \$20: \_\_\_\_\_ Total amount enclosed for program: \_\_\_\_\_

**Genghis Khan.** Thursday, September 22, 7:00 p.m. Number of Members' tickets at \$7: \_\_\_\_\_ Number of additional tickets at \$10: \_\_\_\_\_ Total amount enclosed for program: \_\_\_\_\_

**Birth Control in the Ancient World** Thursday, September 29, 7:00 p.m. Number of Members' tickets at \$8: \_\_\_\_\_ Number of additional tickets at \$12: \_\_\_\_\_ Total amount enclosed for program: \_\_\_\_\_

**NOTE: Orders received less than ten days before show dates will be held for pick-up at the door on the day of the program if tickets are still available. If an event is sold out, you will be advised in writing or by phone and your check will be returned.**



## Members' Walking Tour of the

### Financial District and the Federal Reserve Bank

**Friday, September 16  
11:00 a.m.-2:30 p.m.  
\$25, and open only  
to Participating and  
Higher Members  
Appropriate for  
ages 16 and up**

See the places where people try to save their money and their souls on a downtown walking tour that looks at Manhattan's most secure bank, its oldest church, and other points of historical and architectural interest.

The tours will make a stop at Trinity Church, whose St. Paul's Chapel was built in 1766, making it not only the oldest church in Manhattan but also the island's oldest

public building in continuous use. Among the prominent Americans who have attended the church are George Washington, who worshiped in St. Paul's Chapel after his 1789 inauguration and remained a parishioner during the following months when New York was the nation's capital.

The tour will also visit the Federal Reserve Bank of New York at 33 Liberty Street, which stores a significant part of the world's gold reserves. The massive rusticated walls of the bank, which were designed by York and Sawyer and built from 1919 to 1924, were constructed of stone in two colors to symbolize the strength of the Federal Re-

serve system and the impregnability of the building. Visitors will be offered an overview of the bank's operations and its role in the economy, and they'll visit the currency processing division, the protection area, and the gold vault.

Members will be accompanied by Joyce Gold, an experienced tour guide who leads history walks around Manhattan. Gold, who has a master's degree in metropolitan studies from NYU, teaches popular courses on Manhattan history at the New School for Social Research and NYU.

Use the coupon on page 5 to register for the tour, and please note that tickets are available only by mail.

## Birth Control in the Ancient World

**Thursday, September 29  
7:00 p.m.**

**Kaufmann Theater  
\$8 for Members, \$12 for non-Members**



**Cyrene coin  
of third century  
showing woman  
and contraceptive  
plant**

Alas, Persephone ate six kernels of a pomegranate during her sojourn in the underworld, so she was obliged to return to Hades for six months each year. Thus we have six months of harsh weather while she's gone and her mother, the goddess of agriculture, weeps, followed by six months of blooming warmth upon Persephone's return.

This familiar Greek myth, a metaphor for the cycles of the seasons, also refers to an ancient form of contraception. According to Galen, the foremost physician in classical antiquity, pomegranates are an effective contraceptive, along with willow and date palm.

The ancients possessed a wealth of knowledge about plant life that enabled them to use herbal methods of birth control. This knowledge was lost by the time of the Renaissance, and the story of archaic forms of contraception is only now beginning to emerge. At the Members' program *Birth Control in the Ancient World* historian John Riddle will discuss what's been recovered of this lost knowledge.

The ancient Egyptians were

practicing botanical birth control long before the Greeks and Romans; a papyrus from 1550-1500 BC lists acacia gum among other abortifacients, and modern studies have found acacia to be spermatocidal. Other plants used in classical times as contraceptives or abortifacients include pennyroyal, artemisia, myrrh, and rue. The seeds of Queen Anne's lace, or wild carrot, were declared by Hippocrates to prevent and terminate pregnancy when taken orally. Recent laboratory experiments with rats confirm this assertion, and a few contemporary women in rural areas of North Carolina and India eat Queen Anne's lace seeds to reduce fertility — just as women did 2,000 years ago.

John Riddle will discuss these and other herbal birth-control agents and the possible reasons that they have faded from common usage. A professor of history at North Carolina State University, Riddle is the author of *Contraception and Abortion from the Ancient World to the Renaissance* (Harvard University Press).

Use the coupon on page 3 to register.

## Genghis Khan: Hero or Villain?

**Thursday, September 22  
7:00 p.m.**

**Kaufmann Theater  
\$7 for Members, \$10 for non-Members**

Nearly 800 years after his death, Genghis Khan remains a larger-than-life figure. Opinions about his character and historical significance vary considerably. Westerners tend to regard him as a blood-thirsty barbarian. Chinese historians credit him with the Pax Mongolica, which promoted cultural and commercial interchanges between East and West. Modern Mongols, whose nationalism is fueled by a cult of Genghis, view him as the most brilliant military commander of all time and the true founder of Mongolia.

The life and career of the warrior-king will be examined at the Members' program *Genghis Khan: Hero or Villain?* The program is presented in conjunction with the

exhibition *Empires Beyond the Great Wall: The Heritage of Genghis Khan*, which opens in Gallery 77 in September (see the related feature below). Historian Morris Rossabi will examine the enduring legacy created by Genghis and his sons: the empire that inextricably linked East to West.

Genghis and his successors, including his renowned grandson Kubilai Khan, permitted European envoys, merchants, and craftsmen — including Marco Polo — their first opportunity to journey as far as China. In turn, Asian goods traveled to Europe along the caravan trails, and the ensuing Western demand for these products eventually inspired the search for a sea route to Asia.

On his way to the peaceful era of international exchange, however, Genghis unleashed torrents of death and destruction. His conquest and rule were rife with similar contradictions. An illiterate and uneducated nomad, he ordered the development of the first Mongol written language, supported craftsmen and artists, and patronized a variety of religions.

Morris Rossabi is currently professor of history at City University of New York and adjunct professor at Columbia University. He is the author of *Kubilai Khan: His Life and Times* (University of California Press, 1988) and *Voyager from Xanadu* (Kodansha, 1992).

Use the coupon on page 3 to register.

## Empires Beyond the Great Wall: The Heritage of Genghis Khan

**Exhibition opens in Gallery 77 on Friday, September 16  
Members' private viewing: Thursday, September 22, 6:00-9:00 p.m.**

An unprecedented exhibition that traces some 3,500 years of Mongolian history and culture, *Empires Beyond the Great Wall: The Heritage of Genghis Khan* will feature more than 200 works of art, many of which are recent discoveries and are on display for the first time in the West.

Inner Mongolia, an autonomous region of the People's Republic of China, is one of the world's final archaeological frontiers. A series of extraordinary discoveries over the past four decades has

revealed to Western Silk Route archeologists the splendors of the region's ancient civilization.

The exhibition's displays of gold, bronze, ceramic, wood, and textile objects represent cultures that flourished from 2,000 BC through the fourteenth century AD. They illustrate the complex and often ferocious interactions of the steppe peoples and their sedentary neighbors to the south and west.

Members can attend a private viewing of the exhibition on Thursday, September 22,

from 6:00 to 9:00 p.m. The private viewing, which is presented in conjunction with a special Members' program, is free and open only to Participating and Higher Members. Your valid membership card is your ticket of admission.

*Empires Beyond the Great Wall: The Heritage of Genghis Khan* was organized by the Natural History Museum of Los Angeles County in collaboration with the Inner Mongolia Museum of China. The exhibition will be on display in Gallery 77 through November 27

## Aussie Porta Puppets

**Sunday, September 11  
1:30 p.m.**

**Linder Theater  
\$6 for Members, \$8 for non-Members  
Appropriate for ages 3-7  
Grandparents free with grandchildren**

Kate Kangaroo, Cornelius Crocodile, and Wally Wombat, three of the many furry stars of the *Aussie Porta Puppets*, dwell near a billabong in the outback of Australia. They tour the globe with their creator, Australian puppeteer Margot Siemer, telling tales from the billabong and teaching children about conservation and the environment, problem-solving and self-esteem, and the unique animals from Down Under.

Siemer, a former kindergarten teacher, grew up on a sheep station in the outback

of West Australia with emus and kangaroos as pets. Her performances combine her interest in puppetry and storytelling with her love of wildlife. The *Aussie Porta Puppets* have performed their original stories at schools, colleges, libraries, museums, and theaters around the world.

This program is a September Senior Special — each grandparent will be admitted to the program free when accompanied by a paying grandchild. Use the coupon on page 3 to register.



# Celebrating Our Mistakes

## Stories and Songs for the New Year

Tuesday, September 13  
7:00 p.m.  
Main Auditorium  
\$15 for Members,  
\$20 for non-Members



Shlomo Corleboch

World-known rabbi and folksinger Shlomo Corlebach and master storyteller Diane Wolkstein will return to the Museum for a special program commemorating the Jewish New Year.

They believe that Yom Kippur is the most human of holidays, for it is human to make mistakes. If we have the courage to admit them, our mistakes can be the source of our growth and compassion. Corlebach and Wolkstein will trade true-life stories as well as Hasidic stories of wisdom and humor.

With his music, stories, and retelling of Hasidic teachings, Corlebach touches the hearts of his listeners. He has composed thousands of melodies that are sung throughout the

world, recorded 25 albums, and published two songbooks. "His appeal," reported *Life* magazine, "is as wide as his heart and as great as his soul." He is the rabbi at Carlebach Shul in New York City.

Diane Wolkstein is a gifted storyteller who performs epics as well as fairytales at universities, libraries, theaters, and festivals. She has written 17 books of folklore, including *Inanna* and *The First Love Stories*, and has made 12 recordings. She was recently featured on Charles Kuralt's "CBS News Sunday Morning," which profiled her 25 years of storytelling, writing, and teaching.

Use the coupon on page 3 to register.

# 1994 Margaret Mead Film Festival

Representations of shomonism and fomiliol relationships will be among the themes of the 1994 Morgoret Meod Film Festival, which will take place from Wednesday, October 12, through Tuesday, October 18. This year's retrospective celebrates the works of Richard Gordon and Cormo Hinton, whose films on Chino have been featured throughout the festival's history. Gordon and Hinton will show some of their earliest films as well as their recent works in progress.

**Fearless — The Hunterwali Story** will be among the opening-night films. A fascinating look at the work of a legendary stunt actress whose films dominated the Indian box office in the 30s and 40s, **Fearless** offers a look at Indian cinema and politics of the period.

If you'd like to add your name to the festival's mailing list, call (212) 769-5305.



Fearless Nadia in *Diamond Queen* from the film *Fearless*, © Wallis Moxstone

## Summer Workshops for Kids

Young Members can join June Myles for a fun-filled week of workshops that will take place from Monday, August 8, through Friday, August 12, from 10:30 a.m. to noon. Tickets for the 90-minute programs, which are geared toward children between the ages of 6 and 9, are \$18 and available only to Participating and Higher Members. Use the coupon at right to register, and please note that tickets are available only by mail.

Monday, August 8: *Take a Giant Step Backward*. Kids visit the new Wallace Wing of Mammals and Their Extinct Relatives to learn what it means to be a mammal. Afterward they'll make a memento of their favorite prehistoric giant.

Tuesday, August 9: *Happy Birthday, AMNH!* Celebrate the Museum's 125th anniversary with a look at its classic dioramas. Participants will learn about the techniques used in diorama construction and make their own miniatures.

Wednesday, August 10: *Fabulous Frogs*. Peep at the moves of some of the nearly 4,000 different varieties of frogs and make some hoppers and jumpers to take home.

Thursday, August 11: *Meet*

the Moche. Play detective in the Gallery 3 exhibition *Royal Tombs of Sipán* to discover the ancient Peruvian civilization of the Moche. Participants examine the clothing, jewelry, and pottery on display and use their inspiration to design sand castings.

Friday, August 12: *Flashers*. The bioluminescence of certain plants and animals is the focus of this workshop. Children will search Museum exhibits for creatures that give off flashes of light and make their own glow-in-the-dark creatures.

### Summer Workshops for Kids

*Take a Giant Step Backward*, Mon., Aug. 8  
No. of tickets at \$18: \_\_\_\_\_

*Happy Birthday, AMNH!*, Tues., Aug. 9  
No. of tickets at \$18: \_\_\_\_\_

*Fabulous Frogs*, Wed., Aug. 10  
No. of tickets at \$18: \_\_\_\_\_

*Meet the Moche*, Thurs., Aug. 11  
No. of tickets at \$18: \_\_\_\_\_

*Flashers*, Fri., Aug. 12  
No. of tickets at \$18: \_\_\_\_\_

Total amount enclosed: \_\_\_\_\_

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Daytime telephone: \_\_\_\_\_

Membership category: \_\_\_\_\_

Please make check payable to the American Museum of Natural History and mail with a **self-addressed, stamped envelope** to: Summer Workshops, Membership Office, American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192.

## New Chairman for AMNH

Anne Phipps Sidamon-Eristoff, a Museum trustee since 1967 and a vice chairman since 1990, succeeds the current chairman, William T. Golden, on July 1. Mr. Golden has been elected

chairman emeritus.

A native New Yorker, Mrs. Sidamon-Eristoff has been one of the board's most active and dedicated members. She attended the Chapin School and was graduated from Bryn Mawr College. She is secretary of the board of directors of the World Wildlife Fund and serves on the boards of the Greenacre Foundation, the Museum of

the Hudson Highlands, the Highland Falls Public Library, the Storm King Art Center, and the Black Rock Consortium.

Working closely with the Museum's president and Board of Trustees, Mrs. Sidamon-Eristoff will oversee long-range planning, including defining the Museum's mission and raising the money for its fulfillment.

**Tours and Day Trips.** Use this coupon to register for the day trips *From Quarry to Quonset*, *The Raptor Trust*, *The Croton Reservoir*, *Botanical Garden*, *Staten Island*, *How Water Works*, *Financial District*, and *Pennsylvania Coal Mine*. Indicate a first and second choice of times for *The Revolution and the New Nation in New York*, *The Jewish Lower East Side*, and *Back Streets of the Seaport*.

Name(s) of program(s): \_\_\_\_\_

\_\_\_\_\_

Number of tickets and price (please indicate which program if more than one): \_\_\_\_\_

Total amount enclosed: \_\_\_\_\_

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Daytime telephone: \_\_\_\_\_

Membership category: \_\_\_\_\_

Please make check payable to the American Museum of Natural History and mail with a **self-addressed, stamped envelope** to: *Tours and Day Trips*, Membership Office, American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192.



## Young Members' Birthday Parties at the Museum

*Celebrate Your Birthday with Relatives and Friends*

We'll provide the relatives — extinct ones, that is. Many of these kinfolks will be strangers, and others will just be strange, and you'll do a little climbing through their family trees. At the new Lila Acheson Wallace Wing of Mammals and Their Extinct Relatives, you'll get acquainted with some prehistoric beasts like mammoths, mastodons, and saber-toothed cats and discover which of these creatures are gone forever and which have modern

cousins.

You bring the friends (and the cake), and we'll play games, make a mammalian family memento, and party away for two hours. It will be a birthday that won't fade into oblivion!

The Membership Office sponsors other theme parties for Members between the ages of 5 and 10 that focus on dinosaurs, African mammals, reptiles and amphibians, ocean dwellers, and Native Americans.

The group should be no fewer than 10 and no more than 20. The fee is \$275 plus \$15 per child and covers all materials and the services of a Museum party coordinator. The coordinator will help you plan a party that suits your child's tastes and will handle everything from candles to party favors. All you need to do is bring the cake and help escort the guests.

For more information about the parties, call (212) 769-5542.



*Come to where some wild things are*

Charles Knight, AMNH 310532

## Discovery Tours to Tibet and Morocco

This fall the Museum's Discovery Tours are returning, after a long absence, to two special destinations: to Tibet, from September 2 to 19; and to Morocco, from September 24 to October 8.

Set high in the Himalayas at the very "roof of the world," Tibet is an ancient land like no other. Its topography, which is magnificent in its natural beauty and isolating in its sheer ruggedness, has aided in the creation of a culture marked by intense spiritual devotion and unique traditions. Accompanied by Museum ethnologist Laila Williamson, Discovery Tours

participants will visit the cities of Lhasa, Xigaze, and Gyantze, as well as the Yar-long Valley, which is considered the cradle of Tibetan civilization. The program begins with a stay in Hong Kong and ends with a few days in Beijing.

The other September Discovery Tour is to Morocco, unrivaled in its images of exotic splendor, with its minarets, mosques, palaces, souks, and ancient kasbahs filled with colorfully robed Berbers and snake-charmers. It is also a land of starkly beautiful landscapes, from the Atlas Mountains to the vast

Sahara Desert. Discovery Tours travelers, accompanied by a guest specialist in Islamic studies, will explore the fabled cities of Marrakesh, Fez, and Meknes, the Sahara Desert, the Atlas Mountains, and the walled adobe villages of the renowned Road of the Thousand Kasbahs.

Prices are \$7,695 for the Tibet land/air package (per person, double occupancy) and \$5,573 for the Morocco land/air package (per person, double occupancy).

For more information call Discovery Tours at (800) 462-8687 or in New York State (212) 769-5700.

## A Call to Teach

Each year thousands of schoolchildren visit the Museum. We need you as a teaching volunteer to answer children's questions and add

to their sense of wonder about the world. Teaching volunteers work with classes on schoolday mornings. Previous teaching experience is

not required; we will train you. The next training program starts this fall.

Call (212) 769-5566 for an application.

A Planet-Walk through the Solar System

## The Earth as a Peppercorn

Sunday, July 17, at 1:00 p.m.  
Sunday, August 14, at 1:00 p.m.  
Free

It's difficult to picture the dimensions of the solar system — the planets are relatively small and distances between them almost absurdly great. For a model whose scale is true to size and distance, step outside.

The planet-walk is a 1,000-yard model of the solar system that was devised in 1969 by astronomer and teacher

Guy Ottewill. The walk begins on the Planetarium's front steps at 81st Street, where volunteer tour leader Robert Campanile will take participants on a "journey" of discovery throughout the universe.

For reservations and further information about the tours, call the Volunteer Office at (212) 769-5566.

## Celebrate

### The Royal Tombs of Sipan

With Peruvian Specialities at the Garden Cafe

Lunch, Mon. - Fri: 11:30 - 3:30

Weekend Brunch, Sat. - Sun: 11 - 4  
Dinner, Fri. - Sat: 5 - 7:30

Reservations suggested  
Call the Garden Cafe at 212-769-5865  
Located on the Lower Level



Our charming little shirt features a browsing Apatosaurus whose long tail winds around to the back.

Handmade batik on preshrunk and colorfast 100% cotton. Soft blue dino on rich cobalt blue background.

Please specify S(Toddler), M(3-4) or L(5-6).

To order, send \$21.00 for each (includes shipping and handling within US) to:

Members' Choice Collection  
American Museum of Natural History  
Central Park West at 79th Street  
New York, New York 10024

For Mastercard/Visa orders, please call 212 769-5530



# Museum Notes

## Hours

### Exhibition Halls

Mon.-Thurs. & Sun. ....10:00 a.m.-5:45 p.m.  
Fri. & Sat. ....10:00 a.m.-8:45 p.m.

### The Museum Shop

Mon.-Thurs. & Sun. ....10:00 a.m.-5:45 p.m.  
Fri. & Sat. ....10:00 a.m.-7:45 p.m.

### The Junior Shop

Mon.-Fri. ....10:00 a.m.-4:45 p.m.  
Sat. & Sun. ....10:00 a.m.-5:45 p.m.

### The Museum Library

Tues.-Fri. ....11:00 a.m.-4:00 p.m.

### The Discovery Room

Free passes are distributed at the first-floor information desk beginning at 11:45 a.m. Ages 5 and older. Children must be accompanied by an adult. Closed on holidays and weekdays and for the month of September.

Sat. & Sun. ....Noon-4:30 p.m.

### The Natural Science Center

For children of all ages and their families. Closed on Mondays and holidays and for the month of September.

Tues.-Fri. ....10:30 a.m.-12:30 p.m.  
.....& 2:00-4:30 p.m.

Sat. & Sun. ....1:00-4:30 p.m.

## Museum Dining

### Diner Saurus Fast Service Eatery

Daily ....11:00 a.m.-4:45 p.m.

### Garden Cafe

Reservations: (212) 769-5865

Lunch: Mon.-Fri. ....11:30 a.m.-3:30 p.m.

Dinner: Fri. & Sat. ....5:00-7:30 p.m.

Brunch: Sat. & Sun. ....11:00 a.m.-4:00 p.m.

### Whale's Lair

Fri. ....3:00-8:00 p.m.

Sat. ....Noon-8:00 p.m.

Sun. & most holidays .....Noon-5:00 p.m.  
Snack Carts (at 77th Street & on the first floor of the Roosevelt Memorial Hall)

Sat. & Sun. ....11:00 a.m.-4:00 p.m.

## Entrances

During Museum hours visitors can enter the building through the 77th Street entrance, the parking lot entrance (81st Street), or the Roosevelt Memorial Hall entrance (79th Street and Central Park West). **Visitors attending programs after hours can enter the building through the driveway entrance at 79th Street and Central Park West.**

## Parking

The Museum's parking lot is located on 81st Street between Central Park West and Columbus Avenue. Space is limited and available on a first-come, first-served basis; fees are \$12 for cars and \$11 for buses. The lot is open from 9:30 a.m. to 9:30 p.m. on Sunday through Thursday and from 9:30 a.m. to midnight on Friday and Saturday.

Hertz Manhattan, located one block away from the Museum at 210 West 77th Street (between Broadway and Amsterdam), offers parking discounts to Members: on Monday through Friday Members receive a \$2 discount off regular prices and on Saturday and Sunday they receive a \$3 discount.

Call the Membership Office at (212) 769-5606 for information about alternative parking.

## Museum Tours

Free Museum Highlights Tours are available to individuals and families. Tours are conducted daily at 10:15 and 11:15 a.m., 1:15, 2:15, and 3:15 p.m. and depart from the second floor between the Roosevelt Rotunda and the Hall of African Mammals.

Group Tours are available for a fee. All Group Tours must be scheduled through the Volunteer Office. For details, call (212) 769-5566.



Carl Akeley photographing a volcano from The World Explored: 125 Years of Collecting Photographs in the Library Gallery

# Naturemax

The new IMAX film *Search for the Great Sharks* takes viewers on an incredibly exciting underwater cinematic experience. They'll go on a round-the-globe expedition to discover some of the world's largest sharks and to observe them at close range. Blue sharks, whale sharks, and the notorious great white shark are pursued from the coast of California to the remote reaches of southern and western Australia.

Showtimes for *Search for the Great Sharks* are 12:30, 2:30, and 4:30 p.m. *Africa: The Serengeti*, which explores the relationships between predator and prey, is shown at 10:30 and 11:30 a.m. and 1:30 and 3:30 p.m. daily.

On Friday and Saturday at 6:00 and 7:30 p.m., *Search for the Great Sharks* is shown on a double bill with *Africa: The Serengeti*. Schedules and prices are subject to change without notice. Call (212) 769-5650 for further information.

**Admission** (Participating and Higher Members):  
Adults: \$4.75 single feature; \$6 double feature  
Children: \$2.25 single feature; \$3.25 double feature

# Happenings at the Hayden

## Lectures

### Frontiers in Astronomy and Astrophysics

On Wednesday, July 13, at 7:30 p.m., noted author Andrew Chaikin will present an illustrated talk, "An Apollo Retrospective." Chaikin will review the scientific findings from the first manned landing on the moon.

On Thursday, July 21, at 7:30 p.m., Peter G. Wilhelm, director of the Naval Center for Space Technology, will present an illustrated talk, "Project Clementine: A Return to the Moon." Wilhelm will discuss the first return to the moon since Apollo.

These lectures are part of the *Frontiers in Astronomy and Astrophysics* series. Tickets are \$6 for Participating and Higher Members and \$8 for non-Members. For information about ticket availability and upcoming lectures, call (212) 769-5900. Use the coupon at right to order tickets.

## Exhibition

### Man on the Moon: The Apollo Adventure

This special exhibition, which marks the twenty-fifth anniversary of the Apollo 11 moon landing, features a gigantic scale replica of the original Apollo 11 lunar module, the *Eagle*, that was created with thousands of ERECTOR® set pieces as well as a full-size ERECTOR® replica of the Lunar Rover used on the moon. Also on display are actual moon rocks, a moon map, memorabilia from the Apollo flights, Apollo mission photos from NASA, and an ongoing presentation of the award-winning film *The Eagle Has Landed*.

## Sky Shows

### Update: The Universe

New discoveries from space are revealed on a daily basis, including information about black holes,

new planets, and colliding galaxies. In this fast-paced, "news magazine" presentation, you'll get an astronomy update and look through the new windows on the universe that astronomers have opened with the latest technology.

In the past three years space telescopes such as the Compton Gamma Ray Observatory, the European ROSAT, and the recently overhauled Hubble Space Telescope have been exploring the universe from space, able to view light that never reaches our eyes. At the same time, giant earth-bound telescopes scan the heavens, searching for signs of intelligent life in our galaxy.

### Showtimes:

Mon.-Fri. ....1:30 and 3:30 p.m.

Sat. & Sun. ....1:00, 2:00, 3:00, and 4:00 p.m.

Call (212) 769-5100 for prices and additional information.

## Children's Shows

*Wonderful Sky* is a special Sky Show for preschoolers. Children sing along with images of their favorite Sesame Street Muppets as they learn about rainbows, the phases of the moon, sunsets, and stars. Sat., July 9, at 10:30 a.m., and Sat., Aug. 6, at 10:30 and 11:45 a.m. For prices and ticket information, call (212) 769-5900.

*Robots in Space* features Lucasfilm's R2D2 and C-3PO® and has been created especially for children ages 7 to 12. Together with a live host, these famous space robots take children on a tour of the universe. See how satellites and probes — the real space robots — help us learn about worlds near and far. Journey from the earth to other planets and distant black holes. Sat., July 9, and Sat., Sept. 10, at 11:45 a.m. For prices and ticket information call (212) 769-5900

## Laser Shows

Journey into another dimension where laser visuals and rock music combine to create a dazzling 3-D experience of sight and sound. Shows are presented on Fridays and Saturdays at 7:00, 8:30, and 10:00

p.m. For prices and show schedule, telephone (212) 769-5100.

It's always a good idea to call before visiting the Planetarium, since prices, programs, and showtimes are subject to change without notice. For general Planetarium information, call (212) 769-5100.

### Lecture: "An Apollo Retrospective."

Wednesday, July 13, 7:30 p.m.

Number of Members' tickets at \$6

(no more than 4, please): \_\_\_\_\_

Number of non-Members' tickets at \$8: \_\_\_\_\_

Total amount enclosed: \_\_\_\_\_

### Lecture: "Project Clementine." Thursday,

July 21, 7:30 p.m.

Number of Members' tickets at \$6

(no more than 4, please): \_\_\_\_\_

Number of non-Members' tickets at \$8: \_\_\_\_\_

Total amount enclosed: \_\_\_\_\_

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Daytime telephone: \_\_\_\_\_

Membership category: \_\_\_\_\_

Please make check payable to the Hayden Planetarium and mail with a **self-addressed, stamped envelope** to: Lecture, Hayden Planetarium, Central Park West at 81st Street, New York, NY 10024-5192

Please note that ticket orders are subject to availability and cannot be processed without telephone number and stamped, self-addressed envelope. **Do not include ticket requests or checks for American Museum programs.**



Sun Mon Tues Wed Thur Fri Sat

July 1994

American Museum of Natural History

3 4 Independence Day The Museum is open 5 6 9:00 a.m.-4:00 p.m. Members' Day Trip to the New York Botanical Garden \$40, and open only to Participating and Higher Members. Tickets required. Page 2.



British Columbia Wildlife Photographer of the Year Competition, 1993, by the BCC Wildlife Society and the Natural History Museum (London)

10 11 12 Noon and 3:00 p.m. Members' Walking Tour of the Back Streets of the Seaport. \$15, and open only to Participating and Higher Members. Tickets required. Page 2. 13 7:30 p.m. Frontiers in Astronomy and Astrophysics. Speaker: Andrew Chaikin: "An Apollo Retrospective." Planetarium Sky Theater. \$6 for Members, \$8 for non-Members. Page 7. 14 8:30 a.m.-5:30 p.m. Members' Day Trip to Snug Harbor and the Staten Island Zoo. \$45, and open only to Participating and Higher Members. Tickets required. Page 2. Wildlife Photographer of the Year, on display in the Akeley Gallery through July 31, features the winners of an international competition.

17 1:00 p.m. The Earth as a Peppercorn: A Planet-Walk through the Solar System. Free. Page 6. 18 19 20 10:00 a.m. and 2:00 p.m. Members' Walking Tour of the Cathedral of St. John the Divine. \$20, and open only to Participating and Higher Members. Tickets required. Page 2. SOLD OUT. 21 7:30 p.m. Frontiers in Astronomy and Astrophysics. Speaker: Peter G. Wilhelm, director of the Naval Center for Space Technology: "Project Clementine." Planetarium Sky Theater. \$6 for Members, \$8 for non-Members. Page 7. 22 6:00, 6:30, 7:00, and 7:30 p.m. Members' Guided Tours of Royal Tombs of Sipán. \$3, and open only to Participating and Higher Members. Tickets required. Page 3. 23

24 25 26 Noon and 4:00 p.m. Members' Walking Tours of Five Points and Chinatown. \$20, and open only to Participating and Higher Members. Tickets required. Page 3. SOLD OUT. 27 28 8:30 a.m.-5:30 p.m. How Water Works. Members' day trip. \$50, and open only to Participating and Higher Members. Page 2. 29 30

Sun Mon Tues Wed Thur Fri Sat

1 2 9:00 a.m.-2:00 p.m. Members' Day Trip to the Raptor Trust \$40, and open only to Participating and Higher Members. Tickets required. Page 3. 3 4 8:30 a.m.-5:30 p.m. Members' Day Trip to the Croton Reservoir. \$50, and open only to Participating and Higher Members. Tickets required. Page 2. 5 6

August 1994 7 8 10:30 a.m.-noon Take a Giant Step Backward. Members' children's workshop. \$18, and open only to Participating and Higher Members. Tickets required. Page 5. 9 10:30 a.m.-noon Happy Birthday. AMNH! Members' children's workshop. \$18, and open only to Participating and Higher Members. Tickets required. Page 5. 10 10:30 a.m.-noon Fabulous Frogs. Members' children's workshop. \$18, and open only to Participating and Higher Members. Tickets required. Page 5. 11 10:30 a.m.-noon Meet the Moche. Members' children's workshop. \$18, and open only to Participating and Higher Members. Tickets required. Page 5. 12 10:30 a.m.-noon Flossers. Members' children's workshop. \$18, and open only to Participating and Higher Members. Tickets required. Page 5. 13

Sharp Eyes: John Burroughs and Environmental Writing in America July 24-30 A summer conference at SUNY-Oneonta will offer opportunities for nature walks and hikes following John Burroughs' footsteps at Cooperstown, Woodchuck Lodge in Roxbury, Slabside, and Riverby. Panels and scholarly papers on Burroughs and other environmental writers will be featured at the conference, which is intended for teachers, environmentalists, writers, and all who love the beauty of New York State. Graduate and undergraduate credit is available. Keynote speakers will be Edward Kanze, author of *The World of John Burroughs*, and Tom Horton, who won the Burroughs Medal for Bay Country. For more information, write to Continuing Education, SUNY-Oneonta, NY 13820, or call the John Burroughs Association at (212) 769-5169.

17 18 8:00 a.m.-8:00 p.m. From Quarry to Quonset. Members' day trip to Stony Creek Granite Quarry and Quonset, Rhode Island. Tickets required. Page 2. 19 20

24 11:00 a.m. and 3:00 p.m. The Jewish Lower East Side. Members' walking tour. \$20, and open only to Participating and Higher Members. Tickets required. Page 3. 25 7:00 p.m. Baby Belugas. Members' evening program. Kaufmann Theater. \$7 for Members, \$10 for non-Members. Page 1. 26 27

28 29 30 3:00 and 5:30 p.m. The Revolution in New York. Members' walking tour. \$20, and open only to Participating and Higher Members. Page 3. 31

The Museum receives substantial support from a number of major sources. We are particularly grateful to the City of New York, which owns the Museum buildings and provides funds for their operation and maintenance, and to the New York State Council on the Arts, National Science Foundation, National Endowment for the Arts, National Endowment for the Humanities, 300 corporations, 100 private foundations, 520,000 members, and numerous individual contributors.



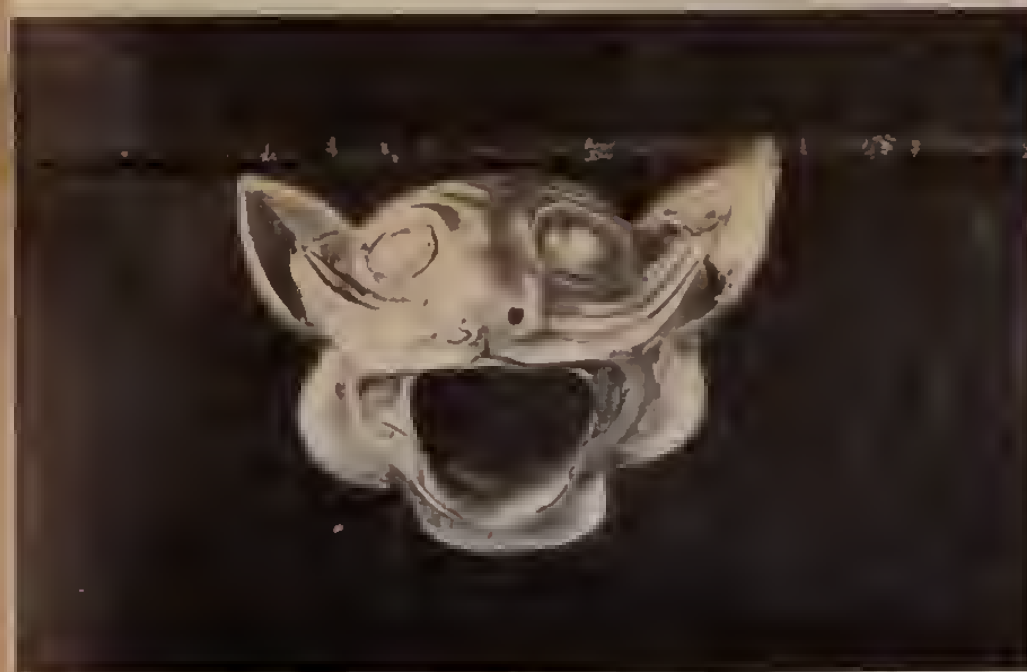
# ROTORUNDA

For Participating and Higher Members of the American Museum of Natural History

Vol. 19, No. 8 September 1994



cat finial (left), seal



silver tiger ornament (left), rim's head finial



photos courtesy of Natural History Museum of Los Angeles County

## Empires Beyond the Great Wall: The Heritage of Genghis Khan

Exhibition opens in Gallery 77 on Friday, September 16  
Members' private viewing: Thursday, September 22, 6:00-9:00 p.m.

Over the last 40 years a series of extraordinary discoveries have substantially augmented Western knowledge of long-ago empires that prospered beyond China's great wall. These discoveries indicate that the Mongols were the last in a long series of steppe empires to emerge from east Asia.

Gold and silver plates and vessels, bronze weapons, silk garments, pottery, porcelain, and funerary ware are among the treasures on display in *Empires Beyond the Great Wall: The Heritage of Genghis Khan*. The new exhibition features artifacts dating from the second millennium BC up to the era of Genghis Khan and the Yuan dynasty of the thirteenth and fourteenth centuries. These priceless artifacts, none of which has ever been

exhibited in the West, are from the collections of seven museums of China's Inner Mongolia Autonomous Region.

In ancient times, the area known today as the Inner Mongolia Autonomous Region was China's great northern frontier. From the fifth century BC up to the Mongol conquest of the medieval world in the thirteenth century AD, nomadic peoples on horseback traveled along this frontier, founding empires that had a profound influence on Chinese dynastic history.

It was not until the twentieth century, however, that the Western world became aware of the material culture of these ancient civilizations. In the early part of this century, investigations by Silk Route archeologists revealed to the West this high culture in

all its extraordinary splendor. These discoveries subsequently formed the foundation of modern scientific studies of the Chinese Silk Route — the routes of commerce and culture that connected the East and West in antiquity.

Dioramas, photographs, maps, videos, and music are featured in the exhibition, along with a full-size recreation of a recently excavated frescoed tomb of a Mongol nobleman. Exhibits will illustrate how the artifacts were originally used, and a Mongol yurt with figures of women in traditional costumes will offer insights into the lives of the people who lived in this region. Photographs and paintings will help transport visitors back to a distant time and place, and video footage of traditional ancestral worship ceremonies at the Genghis Khan

temple will offer an impression of what Mongolian culture is like today.

*Empires Beyond the Great Wall* was organized by the Natural History Museum of Los Angeles County in collaboration with the Inner Mongolia Museum of China. It will be on display through November 27.

### Members' Private Viewing

Members can attend a private viewing of the exhibition on Thursday, September 22, from 6:00 to 9:00 p.m. The private viewing is free and open only to Participating and Higher Members, and your valid membership card is your ticket of admission. A related Members' program, *Genghis Khan: Hero or Villain?*, will also be presented that evening. See the article on page 2 for details.



## Genghis Khan: Hero or Villain?

Thursday, September 22  
7:00 p.m.

Kaufmann Theater  
\$7 for Members, \$10 for non-Members

Nearly 800 years after his death, Genghis Khan remains a larger-than-life figure. Opinions about his character and historical significance vary considerably. Westerners tend to regard him as a blood-thirsty barbarian. Chinese historians credit him with the Pax Mongolica, which promoted cultural and commercial interchanges between East and West. Modern Mongols, whose nationalism is fueled by a cult of Genghis, view him as the most brilliant military commander of all time and the true founder of Mongolia.

The life and career of the warrior-king will be examined at the Members' program

*Genghis Khan: Hero or Villain?* The program is presented in conjunction with the exhibition *Empires Beyond the Great Wall: The Heritage of Genghis Khan*, which opens in Gallery 77 this month (see page 1 for further details about the exhibition). Historian Morris Rossabi will examine the enduring legacy created by Genghis and his sons: the empire that inextricably linked East to West.

Genghis and his successors, including his renowned grandson Khubilai Khan, permitted European envoys, merchants, and craftsmen — including Marco Polo — their first opportunity to journey as far as

China. In turn, Asian goods traveled to Europe along the caravan trails, and the ensuing Western demand for these products eventually inspired the search for a sea route to Asia.

On his way to the peaceful era of international exchange, however, Genghis unleashed torrents of death and destruction. His conquest and rule were rife with similar contradictions. An illiterate and uneducated nomad, he ordered the development of the first Mongol written language, supported craftsmen and artists, and patronized a variety of religions.

Morris Rossabi is currently professor of history at the City University of New York and adjunct professor at Columbia University. He is the author of *Khubilai Khan: His Life and Times* (University of California Press, 1988) and *Voyager from Xanadu* (Kodansha, 1992).

Use the coupon on page 3 to register.

## Birth Control in the Ancient World

Thursday, September 29  
7:00 p.m.

Kaufmann Theater  
\$8 for Members, \$12 for non-Members

Alas, Persephone ate six kernels of a pomegranate during her sojourn in the underworld, so she was obliged to return to Hades for six months each year. Thus we have six months of harsh weather while she's gone and her mother, the goddess of agriculture, weeps, followed by six months of blooming warmth upon Persephone's return.

This familiar Greek myth, a metaphor for the cycles of the seasons, also refers to an ancient form of contraception. According to Galen, the foremost physician in classical antiquity, pomegranates are an effective contraceptive, along with willow and date palm.

The ancients possessed a wealth of knowledge about plant life that enabled them to use herbal methods of birth control. This knowledge was lost by the time of the Renaissance, and the story of archaic forms of contraception is only now beginning to emerge. At the Members' program *Birth Control in the Ancient World* historian John Riddle will discuss what's been recovered of this lost knowledge.

The ancient Egyptians were

practicing botanical birth control long before the Greeks and Romans; a papyrus from 1550–1500 BC lists acacia gum among other abortifacients, and modern studies have found acacia to be spermatocidal. Other plants used in classical times as contraceptives or abortifacients include pennyroyal, artemisia, myrrh, and rue. The seeds of Queen Anne's lace, or wild carrot, were

declared by Hippocrates to prevent and terminate pregnancy when taken orally. Recent laboratory experiments with rats confirm this assertion, and a few contemporary women in rural areas of North Carolina and India eat Queen Anne's lace seeds to reduce fertility — just as women did 2,000 years ago.

John Riddle will discuss these and other herbal birth-control agents and the possible reasons that they have faded from common usage. A professor of history at North Carolina State University, Riddle is the author of *Contraception and Abortion from the Ancient World to the Renaissance* (Harvard University Press).

Use the coupon on page 3 to register.

## Celebrating Our Mistakes

### Stories and Songs for the New Year

Tuesday, September 13  
7:00 p.m.

Main Auditorium  
\$15 for Members,  
\$20 for non-Members



Diane Wolkstein

World-known rabbi and folksinger Shlomo Carlebach and master storyteller Diane Wolkstein will return to the Museum this month for a special program commemorating the Jewish New Year.

They believe that Yom Kippur is the most human of holidays, for it is human to make mistakes. If we have the courage to admit them, our mistakes can be the source of our growth and compassion. Carlebach and Wolkstein will trade true-life stories as well as Hasidic stories of wisdom and humor.

With his music, stories, and retelling of Hasidic teachings, Carlebach touches the hearts of his listeners. He has composed thousands of melodies that are sung throughout the

world, recorded 25 albums, and published two songbooks. "His appeal," reported *Life* magazine, "is as wide as his heart and as great as his soul." He is the rabbi at Carlebach Shul in New York City.

Diane Wolkstein is a gifted storyteller who performs epics as well as fairytales at universities, libraries, theaters, and festivals. She has written 17 books of folklore, including *Inanna and The First Love Stories*, and has made 12 recordings. She was recently featured on Charles Kuralt's "CBS News Sunday Morning," which profiled her 25 years of storytelling, writing, and teaching.

Use the coupon on page 3 to register.

## Aussie Porta Puppets

Sunday, September 11  
1:30 p.m.

Linder Theater  
\$6 for Members, \$8 for non-Members  
Appropriate for ages 3–7  
Grandparents free with grandchildren

Australian puppeteer Margot Siemer tells tales from the billabong and teaches children about conservation, the environment, and the unique animals from Down Under at a performance by the Aussie Porta Puppets.

Kids will learn about the hazards of littering and playing with things they don't understand when Kate Kangaroo cleans up the billabong.

They'll also take in some tips on health and hygiene from a clever kookaburra who shows Cornelius Croc the remedy for his toothache.

Siemer, a former kindergarten teacher, grew up on a sheep station in the outback of West Australia with emus and kangaroos as pets. Her performances combine her interest in puppetry and storytelling with her love of



Margot Siemer

wildlife. She and her creations have performed their original stories at schools, colleges, libraries, museums, and theaters around the world.

This program is a September Senior Special — each grandparent will be admitted to the program free when accompanied by a paying grandchild. Use the September Members' programs coupon on page 3 to register.

## ROTUNDA

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Sheila Greenberg — Manager of Membership Services  
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Yolanda Loftin — Fulfillment Coordinator  
Robert Jahn — Program Coordinator

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Members' Day Trip to

## Hawk Mountain

Saturday, October 15

7:00 a.m.-7:00 p.m.

\$60, and open only to Participating and Higher Members  
Appropriate for ages 16 and up



Red-tailed hawk

Hawks, ospreys, and eagles are among the migrating raptors that travel the Appalachian flyways during their seasonal migrations. After leaving their breeding grounds in Canada and the northern states, thousands of hawks and other birds of prey pass through Pennsylvania's Hawk Mountain Sanctuary — where they're admired by flocks of birdwatchers.

Members can enjoy an autumn day of birdwatching at the sanctuary with naturalist Stephen C. Quinn, a Museum authority on birds and birdwatching. He'll join Mem-

bers as they walk around the mountain to look for raptors, and all participants will lunch on the mountain's north lookout and watch for migrating birds of prey.

Transportation is by bus; the drive is about three hours each way. Be sure to wear proper clothing for outdoors, including hiking boots or sneakers, and don't forget to bring binoculars and a bag lunch (there are no refreshments for sale).

Use the coupon on page 5 to register, and please note that tickets are available only by mail.

## Hudson Valley Cruise

Sunday, October 23

Noon-4:00 p.m.

\$50 for Members and \$60 for non-Members  
Appropriate for ages 13 and up

An ideal opportunity to survey the autumn foliage, the Hudson Valley Cruise will take participants from Wall Street to West Point and back. A high-speed catama-

ran will carry Members in comfort through the historic Hudson Valley at the peak of the season's changing colors.

Cruisers will sail along the entire length of the Palisades

and pass Croton Point. They'll enter Haverstraw Bay and the gateway of the Hudson Highlands, following the river through its most spectacular scenery to West Point and Storm King Mountain.

A pair of experts will be on hand to discuss the region's geology, ecology, and forestry. Sidney Horenstein, coordinator of environmental public programs at the Museum, will point out aspects of geological interest. William Schuster, forester and director of the Black Rock Forest Preserve, will talk about local plant life and the relationship of Black Rock to the rest of the Hudson Highlands.

Use the coupon on page 5 to register, and please note that tickets are available only by mail.



Geology, ecology, and colored leaves

Members' Day Trip to a

## Pennsylvania Coal Mine

Saturday, September 24

7:30 a.m.-7:30 p.m.

\$60, and open only to Participating and Higher Members  
Appropriate for ages 16 and older

**SOLD OUT from previous issue**

Members can explore some of the Northeast's major geological provinces with Sidney Horenstein, the Museum's coordinator of environmental public programs.

They'll board a bus at the Museum and travel across New Jersey to the spectacular

Delaware Water Gap. The journey continues across the Pennsylvanian Appalachians, where the group will board coal trains and enter both subsurface and open-pit mines. Retired coal miners will be on hand to discuss their experiences.

The trip will include a tour of a ghost town that is being evacuated because the coal mine beneath the town is on fire and represents a hazard to residents. The final stop is for a short walk along a wooded path to collect plant fossils.

## September Members' Programs Coupon

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Daytime telephone: \_\_\_\_\_

Membership category: \_\_\_\_\_

Total amount enclosed: \_\_\_\_\_

Please make check (if applicable) payable to the American Museum of Natural History and mail with a **self-addressed, stamped envelope** to: September Members' Programs, Membership Office, American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192. **Telephone reservations are not accepted. No refunds or exchanges.**

**Unless otherwise indicated, no more than eight tickets may be ordered for a program. Participating Members are entitled to four tickets per program at the Members' price. Higher Members are entitled to six tickets, and Associate Members are entitled to one ticket.**

**Aussie Porta Puppets.** Sunday, September 11, 1:30 p.m.

Number of Members' tickets at \$6: \_\_\_\_\_

Number of additional tickets at \$8: \_\_\_\_\_

Number of free grandparents' tickets

(1 free ticket with each purchase): \_\_\_\_\_

Total amount enclosed for program: \_\_\_\_\_

**Stories and Songs for the New Year**

Tuesday, September 13, 7:00 p.m.

Number of Members' tickets at \$15: \_\_\_\_\_

Number of additional tickets at \$20: \_\_\_\_\_

Total amount enclosed for program: \_\_\_\_\_

**Genghis Khan.** Thursday, September 22, 7:00 p.m.

Number of Members' tickets at \$7: \_\_\_\_\_

Number of additional tickets at \$10: \_\_\_\_\_

Total amount enclosed for program: \_\_\_\_\_

**Birth Control in the Ancient World**

Thursday, September 29, 7:00 p.m.

Number of Members' tickets at \$8: \_\_\_\_\_

Number of additional tickets at \$12: \_\_\_\_\_

Total amount enclosed for program: \_\_\_\_\_

**Okavango.** Thursday, October 6, 7:00 p.m.

Number of Members' tickets at \$10: \_\_\_\_\_

Number of additional tickets at \$15: \_\_\_\_\_

Total amount enclosed for program: \_\_\_\_\_

**Jennie.** Tuesday, October 11, 7:00 p.m.

Number of Members' tickets at \$5: \_\_\_\_\_

Number of additional tickets at \$8: \_\_\_\_\_

Total amount enclosed for program: \_\_\_\_\_

**Ghost Stories.** Friday, October 28.

**For children**

Number of Members' tickets at \$5: \_\_\_\_\_

Number of additional tickets at \$8: \_\_\_\_\_

Total amount enclosed for program: \_\_\_\_\_

**For adults**

Number of Members' tickets at \$8: \_\_\_\_\_

Number of additional tickets at \$12: \_\_\_\_\_

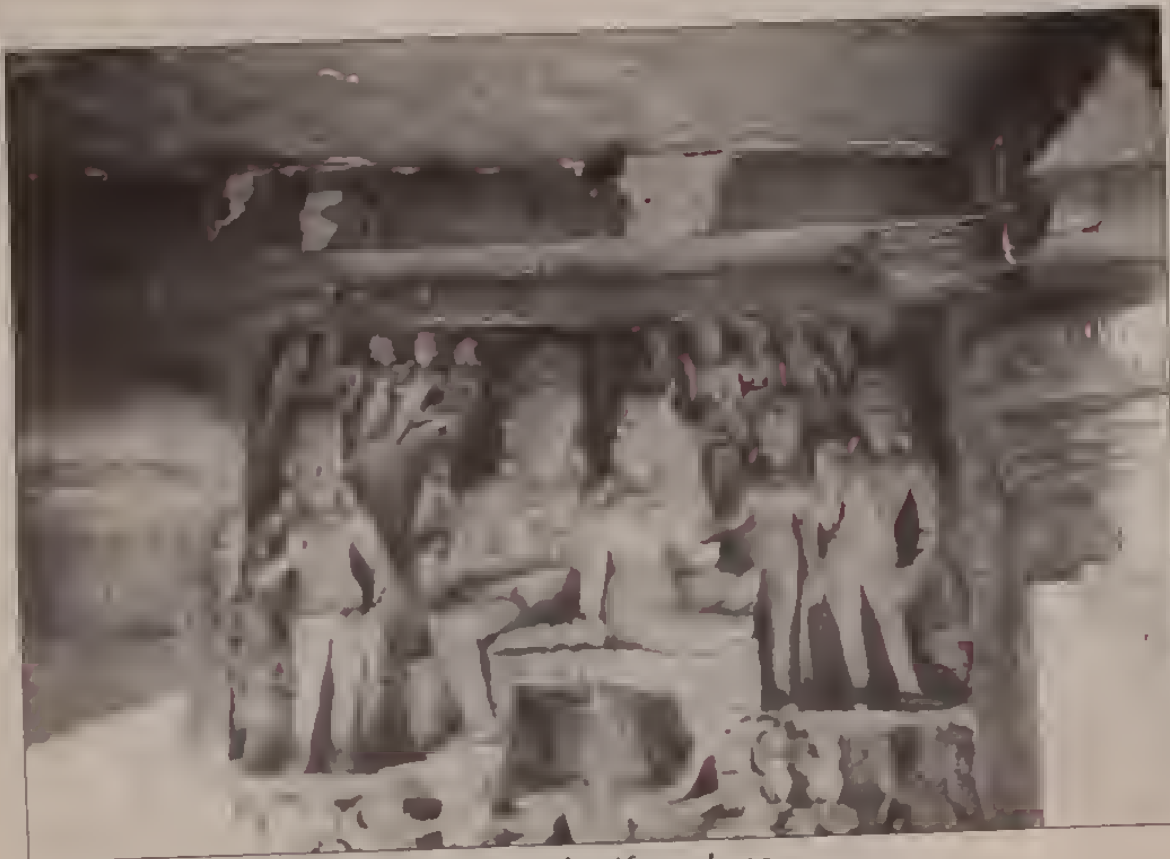
Total amount enclosed for program: \_\_\_\_\_

**NOTE: Orders received less than ten days before show dates will be held for pick-up at the door on the day of the program if tickets are still available. If an event is sold out, you will be advised in writing or by phone and your check will be returned.**



## Sex, Love, and Religion in South India

Friday, October 21  
6:30 p.m.  
Linder Theater  
Free and open to all Museum visitors



Siva with wife on knee

All of the world's religions have rules about love and sexual behavior, and often the love of God and the lower sexual impulses are opposed — creating a problem for humans who need both. In South India, Hinduism developed a method of integrating sex and God in a philosophy that accepts all loving behavior. It teaches that at the beginning of time God became two deities, Siva and Shakti, and from their play the world came forth. At the end of time the lovers will reunite and there will be only God, perfect pleasure, again. Practices considered de-

viant in other religions — prostitution and homosexuality, for example — are accepted in a religion that allows the love of God to be interpreted in a physical manner. Sexuality is not totally free and uncontrolled in Hinduism; however, by accepting and offering a context for every aspect of love and sex, Hinduism not only promotes tolerance but also creates an orderly society.

Anthropologist Chantal Boulanger will describe how love and sex are viewed in South Indian religion and how its myths address every form of sexual behavior. She'll

discuss the roles of temple prostitutes, transvestites, and sex in the lives of married couples. The evolution of these attitudes will also be examined, along with the puritanical influence of British colonialism.

A graduate of l'Ecole des Hautes Etudes en Sciences Sociales, Boulanger specializes in ethnology and Indian studies. She conducts fieldwork in Kanchipuram, a holy city of Tamil Nadu, where she has studied Siva temple priests since 1981.

This program is free and no tickets are necessary but seating is limited.

## Okavango: Africa's Last Eden

Thursday, October 6  
7:00 p.m.  
Main Auditorium  
\$10 for Members, \$15 for non-Members



When Frans Lanting first visited southern Africa's Okavango Delta on assignment for *National Geographic*, he envisioned a six-week project. Instead, his work blossomed into an unprecedented undertaking that stretched over two years. He found an Africa he thought no longer existed — a wetland oasis of more than 8,500 square miles in the middle of Botswana's Kalahari Desert with a richness and diversity of wildlife.

The spectacular photographs he took at the Okavango were published in *National Geographic*, helping the publication win the National Magazine Award for excellence in photography and earning Lanting the BBC title of Wildlife Photographer of the Year.

Last year this body of work was published as *Okavango: Africa's Last Eden* (Chroni-

cle Books). In words and images Lanting tells the miraculous story of a river that dies in the desert to give rise to one of the greatest wetlands on the planet. The book is also a personal account of Lanting's year among lions, elephants, and hippos.

Lanting will talk with Members about his work in Okavango and share his photographs of the region's landscapes and wildlife, including pictures of leopards, crocodiles, zebras, giraffes, hyenas, impalas, and the continent's last great unharrassed herds of elephants. Copies of his book will be available for purchase, and Lanting will sign copies after the show.

Use the September Members' programs coupon on page 3 to register for the program.

### Members' Walking Tour of

## Ladies' Mile

Friday, October 14  
10:30 a.m.-1:30 p.m.  
\$25, and open only to Participating and Higher Members  
Appropriate for ages 18 and up

The Gay '90s brought elegant design to fashion and grand department emporiums to Broadway. Members can learn about the origins of New York's most exciting old and new shopping district on a walking tour that will point out the sites where Jim Brady bought diamonds, the Vanderbilts chose carpets, and Lillian Russell ordered wide-brimmed hats.

The Ladies' Mile Historic

District was developed largely in the decades following the Civil War, when commerce intruded on the residential neighborhoods between Union and Madison squares. The area was redeveloped at the turn of the century, but in the past decade a variety of businesses have rediscovered and restored the district to its former status.

Members will visit one local company — a prominent

costumer of the Broadway theater — for a rare glimpse at the painstaking craftwork that goes into the creation of the stage's vibrant costumes.

The tour will be led by Joyce Gold, a Manhattan historian and teacher (see the article at right for details of Gold's tour of the Financial District). Use the coupon on page 5 to register, and please note that tickets are available only by mail.

### Members' Walking Tour of the

## Financial District and the Federal Reserve Bank

Friday, September 16  
11:00 a.m.-2:30 p.m.  
\$25, and open only to Participating and Higher Members  
Appropriate for ages 16 and up

A Members' walking tour looks at Manhattan's most secure bank and other points of historical interest.

At the Federal Reserve Bank of New York, which stores a significant part of the world's gold reserves, Members will learn about the institution's operations and its role in the economy. They'll also visit the gold vault.

Historian Joyce Gold will lead the tour. Gold teaches popular courses on Manhattan history at the New School for Social Research and NYU (see the feature at left for details about her tour of Ladies' Mile).

Use the coupon on page 5 to register for the tour, and please note that tickets are available only by mail.



## Jennie

**Tuesday, October 11**  
**7:00 p.m.**  
**Kaufmann Theater**  
**\$5 for Members, \$8 for non-Members**

She was an adorable baby and an affectionate youngster. Everyone loved Jennie. But she grew and she grew and she entered a troubled adolescence of conflicts with her friends, her parents, and the police. Jennie was a chimpanzee with problems.

In the novel *Jennie* author Douglas Preston explores the blurry line that divides humans and animals. The book raises ethical questions about the use of primates for research and the attempts to raise chimps among humans. *Jennie* examines what makes us human — and how remarkably close our qualities of humanity are to those of our nearest animal relatives.

As a columnist for *Natural History* magazine, Preston explored the Museum's vaults, storage rooms, and archives, and he described his findings in *Dinosaurs in the Attic*. Among its true stories of the scientists and explorers who assembled the Museum's vast collections is the tragic tale of Meshie, a chimpanzee raised by a curator along with his own children.

Preston will present a Members' program at which he'll show actual footage of Meshie from the Museum's archives. He will recount fascinating chimpanzee case histories — including those of



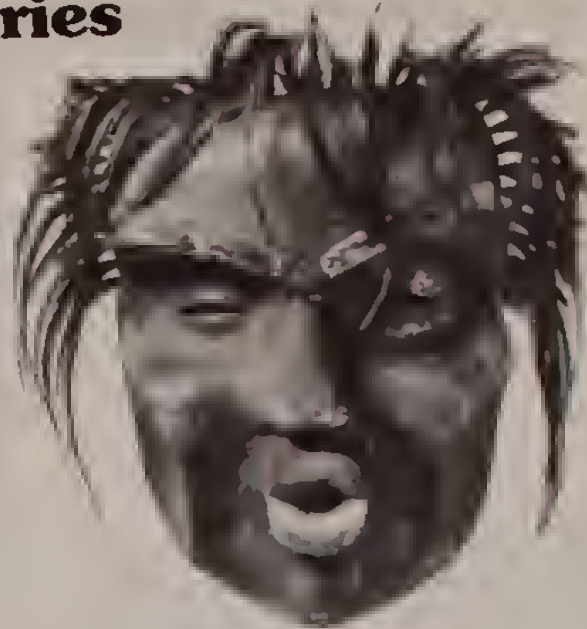
**Meshie, Jennie's predecessor**

Lucy, Nim Chimpsky, Viki Hayes, and Washoe — and discuss the ethical and scientific issues surrounding chimps in captivity.

"I love Jennie, the book and the chimp," said Jane Goodall. "[Preston has] crea-

ted a very remarkable person and a very important book." The novel, which is published by St. Martin's Press, will be available for purchase at the program. Use the September Members' programs coupon on page 3 to register.

## Ghost Stories



AMNH 115523

**Friday, October 28**  
**Kaufmann Theater**  
**6:00 p.m. (for children ages 5-12)**  
**\$5 for Members, \$8 for non-Members**  
**8:00 p.m. (for adults)**  
**\$8 for Members, \$12 for non-Members**

Storyteller Laura Simms will enchant listeners at two Halloween programs featuring ghost and spirit tales from the visible and invisible worlds. She'll recount traditional stories, full of classic wisdom, symbolism, and humor, and make them relevant to modern culture. True-life adventures that reveal the magic and mystery of daily existence will also be told.

This year marks the lucky thirteenth anniversary of Simms' Halloween shows at the Museum. A leader in the revival of storytelling as an art form, Simms has traveled across three continents to hear and tell the world's stories. Her teachers have

included Margaret Mead, Joseph Campbell, Maori elders, Shona singers from Zimbabwe, and a Native American of the Salish Tribes. Polynesian elders have praised her, saying, "She is as good as our grandparents."

The 6:00 p.m. program, which is geared toward children between the ages of 5 and 12, will be full of chills and giggles, and the 8:00 p.m. program for adults promises provocative journeys into strange and fantastic lands, where listeners may rediscover themselves.

Use the September Members' programs coupon on page 3 to register.

## Members' Mask-Making Workshop for Adults

### You're Never Too Old for Tricks or Treats

**Sunday, October 30**  
**1:30-3:00 p.m.**  
**\$18, and open only to Participating and Higher Members**  
**Appropriate for ages 16 and up**

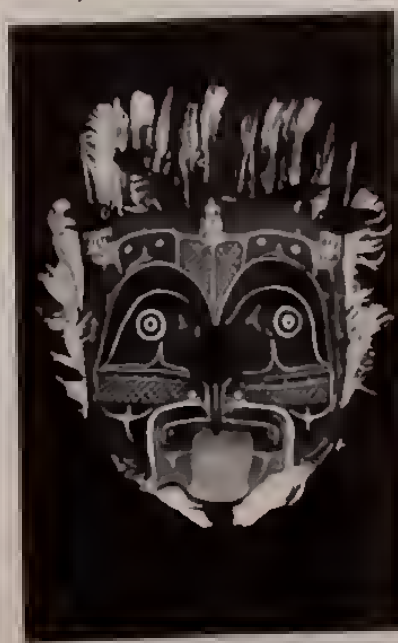
Every day is Halloween in New York City — it's part of Gotham's infinite variety. Dressing up is an indulgence for every age, and making masks is an activity that's pursued around the world, as attested to by the Museum's displays of masks in the halls of Northwest Coast Indians, African Peoples, and elsewhere.

The exhibits of beasts and beauties are sure to inspire you, whether you'd like to excite reactions of awe, respect, or humor. Mask-making offers a special opportunity to be somebody else for a while, so bring your

inner child out for a holiday and come create some headgear. You can make a headpiece for your own costume or a gift for a favorite friend.

The workshop will be presented by June Myles, who has observed that many of the adults who tag along to her children's programs enjoy the crafts projects even more than the kids. Participants will work with everyday items rather than high-tech theatrical materials.

You may barely recognize the transformation. Use the coupon at right to register, and please note that tickets are available only by mail.



**Kwakiutl mask**

**Tours, Day Trips, and Workshops.** Use this coupon to register for the walking tours *Ladies' Mile* and *Financial District*; the *Hudson Valley Cruise*; the day trip *Hawk Mountain*; and the workshop *Mask-Making for Adults*.

Name(s) of program(s): \_\_\_\_\_

\_\_\_\_\_  
 \_\_\_\_\_

Number of tickets and price (please indicate which program if more than one): \_\_\_\_\_

Total amount enclosed: \_\_\_\_\_

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Daytime telephone: \_\_\_\_\_

Membership category: \_\_\_\_\_

Please make check payable to the American Museum of Natural History and mail with a **self-addressed, stamped envelope** to: *Tours and Day Trips*, Membership Office, American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192.



# Fall 1994 Lecture Series

## Earthquakes: Dangerous Windows to the Earth — Hazards from New York to California

Three Tuesdays and a Thursday, Oct. 11–Nov. 1 7:00–8:00 p.m.  
\$22.50 for Members,  
\$25 for non-Members for lectures only (\$20 for students); \$58.50 for Members, \$65 for non-Members for lectures and field trip (limited to 40, no student discount)

This is the first in an annual series that will explore issues in the earth sciences. This program is co-sponsored by the departments of Mineral Sciences and Education.

Oct. 11: *What Are Earthquakes, and What Do They Tell Us about the Earth?* Barbara Romanowicz, head of the Berkeley Seismic Station and professor in the Department of Geology and Geophysics at the University of California, Berkeley.

Oct. 20: *Seismic Behavior of the San Andreas Fault System.* Allan G. Lindh, seismologist, US Geological Survey.

Oct. 25: *Earthquakes in "Stable" Continental Areas: What Can They Do to Us and What Are the Hazards for New York City?* Klaus Jacob, senior research scientist at Lamont Doherty Earth Observatory of Columbia University, and Leonardo Seeber, associate research scientist at Lamont Doherty Earth Observatory.

Nov. 1: *What Can We Do about Earthquakes?* Lloyd Cluff, manager of the Department of Geosciences at Pacific Gas and Electric Company, commissioner of the California Seismic Safety Commission, and president of the Earthquake Engineering Research Institute.

Oct. 29: *Saturday Field Trip.* 8:00 a.m.–6:30 p.m. Participants travel north through the Hudson River Valley to view local faults and other geological features. Guide: Leonardo Seeber.

## Royal Tombs of Sipán: A Lecture Series

Two Tuesdays, Sept. 27 and Oct. 4 7:00–8:00 p.m.  
\$18 for Members,  
\$20 for non-Members

Sept. 27: *An Introduction to Peruvian Archeology.* Craig Morris, curator, Department of Anthropology.

Oct. 4: *The Metallurgy of Ancient Peru.* Heather Lechtman, professor of archeology and ancient technology at MIT.

## Plants of the Wetlands

Five Mondays, Oct. 24–Nov. 21 2:30–4:00 p.m., or five Thursdays, Oct. 27–Nov. 17 7:00–8:30 p.m.  
\$31.50 for Members,  
\$35 for non-Members

William Schiller, lecturer in botany in the Department of Education, presents this series.

1. *Bog Plants in New England.* Carnivorous plants, bog orchids, cranberries, and peat moss.

2. *Southern Wetlands.* Botany in the Okefenokee and southern New Jersey.

3. *Lakeshore and Marsh Plants.* The role of cattails, arrowheads, and smartweeds.

4. *Swampland Vegetation.* Red maple, pussy willow, skunk cabbage, and associated plants in the Northeast.

5. *Seaside Plants.* Stabilizing vegetation of coastal dunes, salt marshes, and rocky headlands.

## Wonders of Metropolitan New York

Two Tuesdays, Oct. 25 and Nov. 1 7:00–8:30 p.m.  
\$18 for Members,  
\$20 for non-Members

Sidney S. Horenstein, geologist and coordinator of environmental public programs at the Museum, discusses local environments and history.

Oct. 25: *Hudson River Geology.* Follow the beautiful and historic Hudson from its source in the Adirondacks to its mouth in New York Harbor and see how it changes as it flows through seven distinctive geologic provinces.

Nov. 1: *Geology of the Revolutionary War in Metropolitan New York.* Discover how geology played a crucial role in determining where many Revolutionary War events occurred — e.g., the crucial role of the Palisades in the fall of Fort Lee and the evacuation of Washington's troops to the south.

## Field Trips and Tours

### Empires Beyond the Great Wall: The Heritage of Genghis Khan — A Special Curatorial Tour

Adam T. Kessler, curator of the current Gallery 77 exhibition, will conduct a gallery tour and discuss the relationship between the objects on display and the complex interactions of the

steppe peoples with their sedentary neighbors (see page 1 for further details about the exhibition). Monday, Oct. 3, Wednesday, Oct. 5, or Friday, Oct. 7: 7:00–8:30 p.m. \$12 per tour (limited to 25 adults; no Members' discount).

## Fall Botany Walking Tours in Central Park

A two-hour morning walk in Central Park observes signs of fall in the flowers and trees. Participants will learn about plant identification and ecology from William Schiller, lecturer in botany in the Department of Education. Saturdays, Sept. 24, Oct. 1, and Wednesday, Oct. 12. 9:00–11:00 a.m. Limited to 25 people. \$12 per walk; no discount for Members.

## Arthur Marks Tours

Sunday, Oct. 9: *The American Museum of Natural History and Its Neighborhood.* Participants will start at the Museum and walk south to see Shearith Israel, New York's oldest Jewish congregation. They'll continue west to end the tour at Lincoln Center, where they'll see the Metropolitan Opera House, the State Theater, and Avery Fisher Hall.

Sunday, Oct. 23: *The East Sixties: High Aspiration Amid Grandeur.* The tour will begin at Hunter College and head south past the Catholic Church of St. Vincent Ferrer, one of Franklin Delano Roosevelt's townhouse dwellings. Temple Emanu-El and the Seventh Regiment Armory. It will conclude at the Metropolitan Club at Fifth Avenue and 60th Street.

All tours will take place from 1:30–3:30 p.m., rain or shine. \$20 for both walks; \$12 for one.

## New Fall Weekend Whale Watch Off Cape Cod

The search for whales involves three 4-hour cruises by private charter from Provincetown. In addition to the marine biologists aboard the boat, two Museum staff members will accompany the group: Brad Burnham, senior instructor in natural science in the Education Department, and naturalist Stephen C. Quinn, who will identify the many species of coastal birds that may be seen. Friday–Sunday, Sept. 23–25. \$400 (double occupancy). Fee includes transportation, two nights' lodging, meals, and lectures. Limited to 45 adults. Call (212) 769-5310 for the itinerary and application.



Gilded copper warrior from Royal Tombs of Sipán

Christopher Dutton

Please make check payable to the American Museum of Natural History and mail with a **self-addressed, stamped envelope** to: Lecture Series or Mead Festival, Education Dept., American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192. **Please send separate checks for the Lecture Series and the Mead Festival.**

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Daytime telephone: \_\_\_\_\_

Membership category: \_\_\_\_\_

**Lecture Series.** Advance registration is requested, but registration will be accepted on the opening night if the course is not filled. No single lecture tickets are sold in advance. There are no refunds. Children are not admitted to lectures, workshops, or field trips. For further information call (212) 769-5310. Please print:

Course	Day	Hour	No. tickets	Price (each)	Total

Course	Day	Hour	No. tickets	Price (each)	Total

Lecture Series total: \_\_\_\_\_

## 1994 Margaret Mead Film Festival

Method of payment: ☐ Check ☐ MC ☐ Visa

Account no.: \_\_\_\_\_

Expiration date: \_\_\_\_\_ Month/Year

## Festival Pass

Number of passes at Members' price of \$40: \_\_\_\_\_  
Number of passes at non-Members' price of \$44: \_\_\_\_\_  
Total amount enclosed: \_\_\_\_\_

## Margaret Mead Film Festival T-Shirt

☐ Medium ☐ Large ☐ Extra-large  
Number of T-shirts at Members' price of \$11.50: \_\_\_\_\_  
Number of T-shirts at non-Members' price of \$13: \_\_\_\_\_  
Total amount enclosed: \_\_\_\_\_

## Friend of the Festival

Number of Friends at \$125 each: \_\_\_\_\_  
Total amount enclosed: \_\_\_\_\_  
Mead Festival total: \_\_\_\_\_

\_\_\_\_ Please send me a complete schedule of films and videos.



# 1994 Margaret Mead Film and Video Festival

**Wednesday, October 12-  
Tuesday, October 18**

**Wednesday, Thursday, Monday,  
and Tuesday: 6:30-10:30 p.m.  
Friday: 6:00-8:30 p.m.  
Saturday: 11:00 a.m.-8:30 p.m.  
Sunday: 11:00 a.m.-5:30 p.m.**

Daily tickets, which go on sale on the day of the films after 5:00 p.m. on weekdays and after 10:30 a.m. on weekends, are \$7 for Members and students with ID and \$8 for non-Members.

A festival pass (valid October 12-18) is \$40 for Members and students with ID and \$44 for non-Members. For further information call (212) 769-5305.

Festival passes and Friend of the Festival enrollment will be available after 5:00 p.m. on Wednesday and Thursday. Festival passes and daily tickets can be pre-purchased with Mastercard or Visa. For ticket charge call (212) 769-5310. Please note that tickets are non-refundable and passes and daily tickets do not guarantee a theater seat for the film of your choice. All seating is on a first-come, first-served basis.

## Become a Friend of the Festival for a \$125 Contribution

Benefits include one festival pass valid for admission to all screenings, one festival T-shirt, and an invitation for two to the Directors' Reception. If you make your contribution before September 30 you can reserve a seat for the first screening of each day or night.

## Festival T-Shirt

These 100 percent cotton T-shirts feature the festival's distinctive 4-mask logo with green or purple print. Use the coupon on page 6 to order, and be sure to specify medium, large, or extra-large. The shirts are \$11.50 each for Members and \$13 for non-Members.



**Fearless — The Hunterwali Story**



**The Belous**

## Wednesday, October 12

### AUDITORIUM

#### Film/Photography and Culture

6:30 p.m. *The Other Shore*. (Peru. Mikael Wis-

tröm, 1992. 84 min. US premiere) A troubling essay on the ethics of filmmaking results when a Swedish photographer returns to the garbage mountains of Lima,

Peru, to revisit the workers he documented 17 years earlier.

8:30 p.m. *Electric Shadows*. (China. Hervé Cohen, Renaud Cohen. 1993. 26 min. US premiere) Deep in the province of Sichuan, a woman and two men travel the countryside, climbing forbidding terrain to present outdoor film shows that link up with pre-existing festivals. (Repeat: Sunday, Linder)

9:15 p.m. *Fearless — The Hunterwali Story*. (India. Riyad Vinci Wadia. 1993. 62 min. US premiere) A celebration of the Indian cinema's legendary stunt actress, Fearless Nadia, who dominated the box office in the thirties and forties.

### KAUFMANN THEATER

#### Music: From Celebration to Protest

6:30 p.m. *From Shore to Shore: Irish Traditional Music in New York City*. (NYC. Patrick Mullins, Rebecca Miller. 1993. 57 min. Video) A multilayered portrait of the role of Irish traditional music in shaping ethnic identity in New York City since the turn of the century. (Repeat: Sunday, Linder)

7:50 p.m. *A Little for My Heart, A Little for My God: A Muslim Woman's Orchestra*. (Algeria. Brita Landolf. 58 min. Video. NY premiere) In gender-separated Algeria, women musicians known as

meddahatts perform for raucous all-female gatherings at which women remove their veils and dance. This film focuses on one such orchestra, which includes two gay men who are accepted in an all-female world. (Repeat: Sunday, Kaufmann)

9:10 p.m. *Gandy Dancers*. (USA. Barry Dorf and Maggie Holtzberg. 1994. 30 min. NY premiere) Eight retired African-American railroad track laborers are the focus of a collective story of working in the segregated South before civil rights, organized labor, and occupational safety standards. (Repeat: Friday, Kaufmann)

9:55 p.m. *From Little Things Big Things Grow*. (Australia. Trevor Graham. 56 min. 1993. Video. US premiere) Aboriginal musician and songwriter Kev Carmody and his role as a voice of protest for black Australia. (Repeat: Sunday, Kaufmann)

which was banned during the Cultural Revolution.

### One Village in China

7:10 p.m. *Small Happiness: Women of a Chinese Village*. (1984. 58 min.) This film explores the changing roles of women in rural China. (Repeat: Saturday, Kaufmann)

8:15 p.m. *All Under Heaven*. (1985. 58 min.) The political is the personal as villagers recount stories of economic upheaval over the last two generations.

9:30 p.m. *To Taste a Hundred Herbs: Gods, Ancestors, and Medicine in a Chinese Village*. (1986. 58 min.) A close-up look at the community's religious and medical practices, traditional and modern.

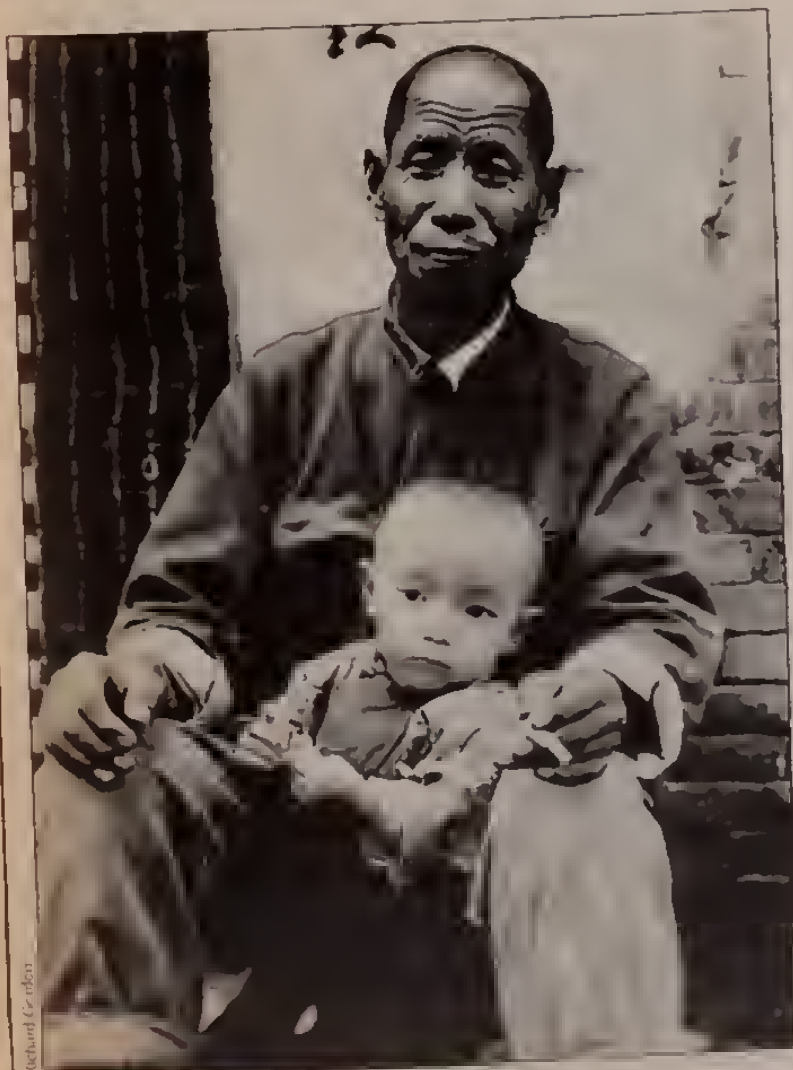
### PEOPLE CENTER

#### Representations of Shamanism

6:30 p.m. *Survivors of the Rainforest*. (Venezuela. Andy Jillings, Jacques Lizot. 1993. 50 min. Video. US premiere) The Yanomami of Venezuela invite their enemies to settle old scores and feast

7:40 p.m. *A Shamanic Medium of Tuguru*. (Japan. Yashuhiro Omori. 1994. 92 min. World premiere) Villagers in northern Japan look to a woman shaman to summon ancestors

9:40 p.m. *Survivors of the Rainforest* (Repeat)



**All Under Heaven**

### LINDER THEATER

#### Retrospective: The Films of Carma Hinton and Richard Gordon The Long Bow Trilogy (China)

6:30 p.m. Introduction of the filmmakers.

6:40 p.m. *The Stilt Dancers*. (15-min. excerpt 1980) A look at the revival of the stilt dancing festival.



## Thursday, October 13 AUDITORIUM

### Family Series: Sisters, Mothers, Wives

6:30 p.m. *The Good Wife of Tokyo*. (Japan. Kim Longinotto and Claire Hunt. 1992. 52 min.) Pop singer.

7:50 p.m. *The Belous* (Russia. Victor Kossakovsky. 1992. 60 min. Black and white. NY premiere) A tragic-comedic depiction of the family life of a sister and three

brothers who live in a rural community in Russia.

9:10 p.m. *Our Way of Loving*. (Ethiopia. Joanna Head, Jean Lydall. 1994. 58 min. US premiere) This film, a follow-up to *Two Girls Go Hunting*, revisits Sago and Duka and explores their marriages and family problems in the remote southwest of Ethiopia. (Repeat: Tuesday, Kaufmann)

### KAUFMANN THEATER

#### Peru Today

6:30 p.m. *Transnational Fiesta*: 1992. (Peru. Wilton Martinez, Paul Gelles. 60 min. Video. NY premiere) This film explores the multi-cultural and transnational experiences of a family of Peruvian Andean immigrants living in Washington, DC.

7:55 p.m. *Dancing with the Incas*. (Peru. John Cohen. 1992. 58 min. 1992. NY premiere) A look at Huayno music, the popular music of the Peruvian Andes. (Repeat: Saturday, Linder)

9:15 p.m. *Transnational Fiesta*. (Repeat)

### LINDER THEATER

#### Retrospective: Films of Carma Hinton and Richard Gordon

6:30 p.m. *First Moon*: Celebration of a Chinese

*New Year*. (1984. 37 min.) The village of Long Bow celebrates the most important of traditional festivals.

7:25 p.m. *Abode of Illusion*. (1992. 20-min. excerpts)

8:45 p.m. *The Gate of Heavenly Peace*. (Work in progress. 1994. 90-min. selections of a three-hour series)

### PEOPLE CENTER

#### Initiation Rites

6:30 p.m. *Reaffirmation and Discovery: The First Pow Wow on Hawaii*. (USA. Kat High. 1993. 29 min. Video) The connections between Native Americans and native Hawaiians are seen through the coming-out ceremony of two young girls. (Repeat: Saturday, Linder)

7:20 p.m. *The Sunrise Dance*. (USA. Gianfranco Norelli. 1994. 29 min. Video. US premiere) The puberty rite of a 13-year-old Apache girl on an Arizona reservation. (Repeat: Saturday, Linder)

8:10 p.m. *Owu: Chidi Joins the Okoroshi Secret Society*. (Nigeria. Sabine Jell-Bahlsen. 1994. 55 min. Video. World premiere) The initiation of a young boy into a men's secret society that plays a significant role in the community's culture.

9:30 p.m. *Owu: Chidi Joins the Okoroshi Secret Society*. (Repeat)



Isingiro Hospital

## Friday, October 14

### KAUFMANN THEATER

6:00 p.m. *Gandy Dancers*. (See Wednesday, Kaufmann)

6:45 p.m. *The Sultan's Burden* (Nigeria. Jon Jerstad, Lisbet Hotedahl. 1993. 48 min. US premiere) A traditional ruler in Nigeria faces opposition. (Repeat: Saturday, Kaufmann)

7:45 p.m. *Isingiro Hospital*. (NW Tanzania. Hillie Molenaar, Joop van Wijk. 1993. 40 min. US premiere) A medical team in the only hospital in northwest Tanzania, one of the poorest re-

gions of Africa. (Repeat: Saturday, Kaufmann)

### LINDER THEATER Culture Continuity/ Culture Change

6:00 p.m. *Grandma of Boats*. (World. Mark Soosaar. 1989-93. 64 min. US premiere) The sacred role of the canoe in Estonian, Siberian, Northwest Coast, and South American cultures. (Repeat: Saturday, Linder)

7:20 p.m. *Siberia After the Shaman*. (Siberia. Graham Johnston, Piers Vitebsky. 1991. 50 min. Video. US premiere) The reindeer-herding Evenki retain their traditions despite Soviet pressure.



Transnational Fiesta



Greetings from  
Out Here

## Saturday, October 15

### KAUFMANN THEATER

11:00 a.m. *The Sultan's Burden*. (See Friday, Kaufmann)

12:15 p.m. *God's Alcatraz*. (USA. Boris Stout. 1993. 36 min. Black and white. US premiere) An African-American community leader and pastor, Johnny Ray Youngblood is a proponent of segregation as the means to rehabilitate a black community.

1:10 p.m. *Freedom Ride*. (Australia. Rachel Perkins. 1993. 56 min. Video. US premiere) The director's powerful portrait of her aboriginal father, Charles Perkins, who was a pivotal figure in the Australian "freedom rides" of 1965. (Repeat: Tuesday, People Center)

2:30 p.m. *Isingiro Hospital*. (See Friday, Kaufmann)

#### Women's Films

3:30 p.m. *Act of Love*. (Europe. Karin Junger. 1992. 45 min. Video. US premiere) This complex film explores how the practice of female circumcision affects African women living in Western Europe.

4:35 p.m. *Greetings from Out Here*. (USA. Ellen Spiro. 1993. 57 min. Video) This "road trip" film tells of the filmmaker's travels across the United States to see how people view homosexuality outside of cosmopolitan New York.

5:45 p.m. *Something Like a War*. (India. Deepa Dhanraj. 1991. 52 min. Video) In 1952 the Indian government instituted a campaign of "family planning" in which "motivators" compete, often through bribery and false promises, to sterilize women.

6:50 p.m. *Small Happiness: Women of a Chinese Village*. (See Wednesday, Linder)

### LINDER THEATER

11:00 a.m. *Grandma of Boats*. (See Friday, Linder Theater)

#### Family Series

12:20 p.m. *Something Should Be Done about Grandma Ruthie*. (USA. Cary Stauffer. 1993. 54 min. Video.) A family's struggle with an 85-year-old grandmother's senility — her wrenching loss of autonomy

and their frustrations resulting from caring for a loved one who resists and resents their attention. (Repeat: Sunday, Kaufmann)

1:35 p.m. *Homelands*. (El Salvador/Australia. Tom Zubrycki. 75 min. 1993. Video. US premiere) Maria and Carlos Robles escaped from El Salvador eight years ago to a new world in Australia, where they struggle to maintain their culture and sense of family. (Repeat: Tuesday, Kaufmann)

3:15 p.m. *The Sunrise Dance*. (See Thursday, People Center)

4:00 p.m. *Reaffirmation and Discovery: The First Pow-Wow on Hawaii*. (See Thursday, People Center)

4:45 p.m. *Copper-Working in Santa Clara del Cobre, Michoacán, Mexico: Artisans Facing Change*. (Mexico. Beate Engelbrecht, Manfred Krüger. 50 min. 1993. 16 min. NY premiere) The ancient craft of copper-working — local artisans remark on the impact of the worldwide recession on their art and village. (Repeat: Sunday, Linder)

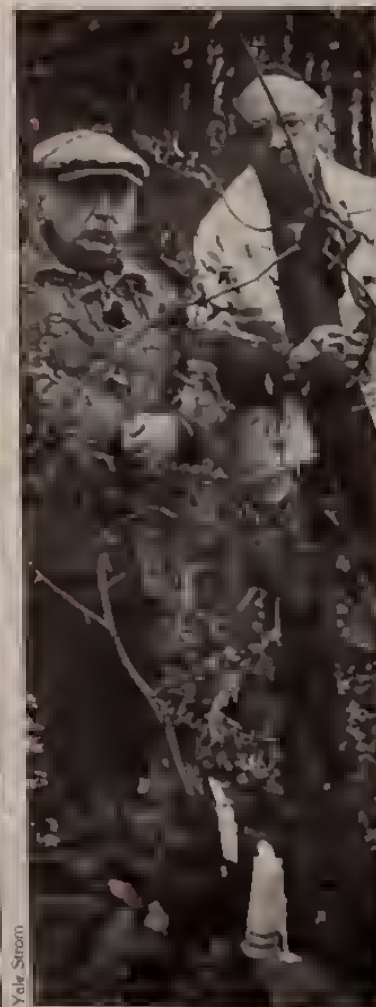
6:00 p.m. *Earl Robinson: Ballad of an American*. (US. Bette Jean Bullert. 56 min. 1994. Video) A fascinating portrait of the balladeer of the American Communist party and composer of "Joe Hill," who became a New Age spiritualist in later life.

7:20 p.m. *Dancing with the Incas*. (See Thursday, Kaufmann)

## Sunday, October 16

### KAUFMANN THEATER

11:00 a.m. *The Last Klezmer — Leopold Kozlowski: His Life and His Music*. (Poland. Yale Strom. 1993. 84 min.) Since



The Last Klezmer

his escape from a Nazi labor camp, Kozlowski has spent his life working to maintain the klezmer tradition. (Repeat: Sunday, Linder)

12:50 p.m. *From Little Things Big Things Grow*. (See Wednesday, Kaufmann)

2:15 p.m. *A Little for My Heart, A Little for My God: A Muslim Women's Orchestra*. (See Wednesday, Kaufmann)

3:35 p.m. *Lighting the Seventh Fire*. (USA. Ojibwa. Sandra Johnson Osawa. 1994. 41 min.) A profile of the Ojibways of northern Wisconsin, who reaffirm their traditions in the face of racism and the politics of spear-fishing. (Repeat: Monday, Kaufmann)

4:20 p.m. *Something Should Be Done about Grandma Ruthie*. (See Saturday, Linder)

### LINDER THEATER

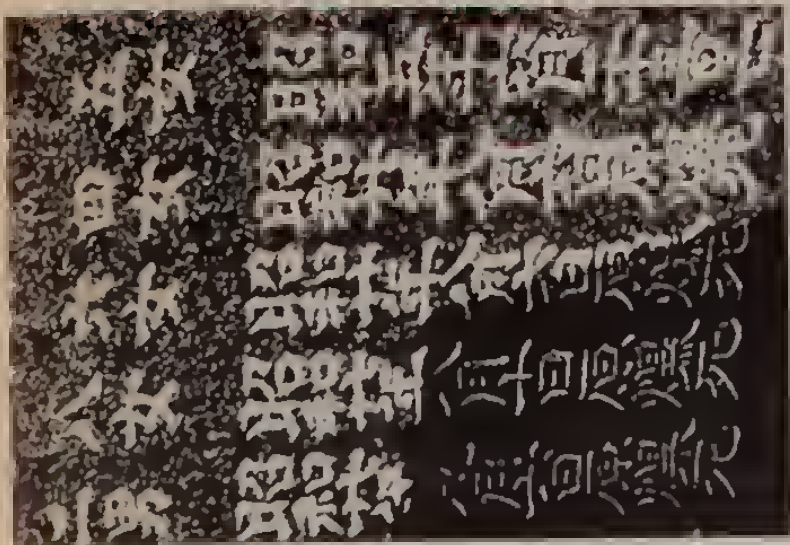
11:00 a.m. *Copper-Working in Santa Clara del Cobre, Michoacán, Mexico: Artisans Facing Change*. (See Saturday, Linder)

12:15 p.m. *From Shore to Shore: Irish Traditional Music in New York City*. (See Wednesday, Kaufmann)

1:30 p.m. *Electric Shadows*. (See Wednesday, Auditorium)

3:30 p.m. *The Last Klezmer*. (See Sunday, Kaufmann)





Genbaku Shu: Killed by the Atomic Bomb

## Monday, October 17 AUDITORIUM

### Family Series: Men's Journeys

6:30 p.m. *Memories of Tata*. (Nicaragua. Sheldon Schiffer. 1993. 52 min.) A portrait of the dissolution of an immigrant Central American family in which a filmmaker attempts to understand his grandfather's embodiment of both love and hatred.

7:50 p.m. *Genbaku Shu: Killed by the Atomic Bomb*. (USA. Casey Williams. 60 min. 1993. NY premiere) A soldier who was sent to rescue surviving POWs was one of the first to witness the aftermath of the atomic blast that leveled Nagasaki. Haunt-

ing archival material and a Japanese survivor's chilling tale connect this personal account to the larger horror of atomic warfare.

9:10 p.m. *Osaka Story*. (Japan and Korea. Toichi Nakata. 75 min. 1994. World premiere) The filmmaker's view of his Korean-born father, a bigamist, and his Japanese mother, a quiet sufferer, and a family defined by its silences.

### KAUFMANN THEATER

#### Fighting for Our Land

6:30 p.m. *Kahnasatake: 270 Years of Resistance*. (Canada, Mohawk. Alanis Obomsawin. 1993. 119

min.) The Mohawk Indians protest against a government-approved housing development and golf course to be built on their land in Quebec. Features first-hand footage that captures the state of siege within the village of Kahnasatake and the military war zone outside.

8:45 p.m. *Milli Milli*. (Australia. Wayne Barker. 1993. 53 min. US premiere) Milli milli means "message," and this film is a message from the Kimberley people of Australia — an indigenous production for non-indigenous audiences that touches on contemporary aboriginality, colonial and recent history, storytelling, and self-determination.

10:00 p.m. *Lighting the Seventh Fire*. (See Sunday, Kaufmann)

### LINDER THEATER

#### Evening of Films from Centro de Trabalho Indigenista

Centro de Trabalho Indigenista (Center for Work with Indigenous Peoples) was established in 1987 as a collaborative indigenous media program to help document communities of the Amazon region.

6:30 p.m. *Video in the Villages (Video Nas Aldeias)*. (Vincent Carelli. 1989. 10 min.) How four different Amazonian native groups — Nambiquara, Gavião, Tikuna,

and Kayapo — have embraced video.

6:50 p.m. *The Girl's Celebration (A Festa da Moca)*. (Vincent Carelli. 1987. 18 min.) The documentation of a Nambiquara girl's puberty rite becomes an act of self-reflection as the video is viewed by the village.

7:15 p.m. *Pemp*. (Vincent Carelli, Gilberto Azanha. 1988. 27 min.) This film documents how Kokrenum, the chief and keeper of the Parakatêjê traditions, uses video to transmit the customs to future generations.

8:00 p.m. *The Spirit of TV (O Espírito da TV)*. (Vincent Carelli, Dominique Gallois. 1990. 18 min.) The Waiãpi Indians discuss the value of video and television not only as a method of preserving their traditions but also as a way to communicate to other Indian groups.

8:30 p.m. *Free for All in Sararé (Boca Livre No Sararé)*. (Vincent Carelli. 1992. 27 min.) A look at Amazonian struggles from the inside, this video centers on the issue of Indian land rights and documents illegal prospecting and timber farming through interviews with Indians, Portuguese prospectors, and government officials.

9:15 p.m. *Meeting Ancestors (A Arca dos Zo'ê)*. (Vincent Carelli and Dominique Gallois. 1993. 22 min.) Two communities meet through video to compare rituals, myth, and history.

9:45 p.m. *We Gather as a Family (Eu Já Fui Seu Irmão)*. (Vincent Carelli. 1993. 32 min.) A cultural exchange between two Brazilian tribal groups who share a traditional initiation ceremony.

### PEOPLE CENTER Shamans and Cameras

#### A Retrospective and Symposium

6:30 p.m. Introduction: Laurel Kendall.

6:45 p.m. *Shamanism: Past and Present*. (Siberia. Mihaly Hoppál. 1994. 15-min. excerpt. World premiere) Archival photographs and film and contemporary interviews with leaders in the field are featured in a look at the history, continuation, and transformation of shamanism.

7:15 p.m. *Pomo Shaman*. (USA. William Heick, Gordon Mueller, David Wayne Perl, and Robert Walter Wharton. 1953. Black and white. 30 min.) On the Cheyenne Reservation a Southwest Pomo Indian healer sucks the pain from her patient during a two-night ritual.

8:00 p.m. *A Kut in Seoul*. (Korea. A. Guillemoz and G. Vargyas. 1993. 15-min. excerpt. US premiere) The half-day-long shamanic seance of female shaman Hong la Suh relating to a marriage ceremony in Seoul.

## Tuesday, October 18 AUDITORIUM

### The Observers/ The Observed

6:30 p.m. *Boatman*. (India. Gianfranco Rosi. 1993. 16 mm. Black and white. 57 min. NY premiere) This unusual tour of the Ganges with a local boatman offers an intimate view of the ironic contrasts between myth

and reality and life and death that surround the holy river.

7:55 p.m. *Ishi: The Last Yahi*. (USA. Jed Riffe and Pamela Roberts. 1994. 60 min.) The story of Ishi, heralded by early twentieth-century papers as "the last wild Indian." The "sciencizing" of Ishi's life by anthropologists is explored, both from his perspective and from that of his teacher, anthropologist Alfred Kroeber.

9:15 p.m. *The Belous*. (See Thursday, Kaufman)

### KAUFMANN THEATER

#### Family Series: Outsiders Looking In

6:30 p.m. *An American Family*. (USA. Alan Raymond, Susan Raymond. 1971. 58 min.) One of the segments from the renowned 13-part television series.

7:45 p.m. *Our Way of Loving*. (See Thursday, Auditorium)

9:00 p.m. *Homelands*. (See Saturday, Linder)

### LINDER THEATER

#### Portraits: Individual and Community

6:30 p.m. *John Collier, Jr.: A Visual Journey*. (USA. Stephen Olsson, Maria Luiza Aboim. 28 min. 1993. NY premiere) John Collier, Jr., whose hearing was severely impaired by a childhood accident, learned to communicate with his eyes and became a pioneer in the field of visual anthropology.

7:20 p.m. *God's Alcatraz*. (See Saturday, Kaufmann)

8:15 p.m. *New Neighbors (Nieuwe Buren)*. (Netherlands. Ireen Van Ditschuyzen. 1994. 120 min. US premiere) Members of migrant communities of Turks and Moroccans talk about racism and the future of Europe.

### PEOPLE CENTER

#### Fighting for Our Freedom

6:30 p.m. *Freedom Ride*. (See Saturday, Kaufmann)

7:50 p.m. *Act of War: The Overthrow of the Hawaiian Nation*. (Hawaii. Puhipau and Joan Lander. 1993. 58 min.) Hawaiian scholars and activists retell the history of the Hawaiian nation and its people from a Hawaiian perspective.

9:15 p.m. *Freedom Ride*. (Repeat)

#### Honorary Chairperson Mary Catherine Bateson

**Programmers**  
Elaine S. Chamov  
Nathaniel Johnson, Jr.

**Festival Assistant**  
 Sylvia Morales

This program has been made possible with generous support from the New York State Council on the Arts and Natural Heritage Trust.



Ishi, the Last Yahi



## FACES: The Magazine About People

"The Moche of Peru" is the theme of the September 1993 issue of *FACES*, the anthropology magazine for young readers. This issue was developed in conjunction with the current Gallery 3 exhibition, *Royal Tombs of Sipán*, and features stories about the ancient Moche civilization, a puzzle with artifacts as clues, and a recipe for a Peruvian potato feast.

*FACES* is printed nine times a year by Cobblestone Publishing with the cooperation of the American Museum. Each issue explores a different theme: previous issues have examined bread, ways of remembering the dead, and hair.

One year's subscription is \$21.95 (\$8 additional per year outside the United States. Canadians, please add 7 percent). Send your check payable to *FACES* to: Cobblestone Publishing, Inc., 7 School Street, Peterborough, NH 03458 or call (800) 821-0115. Back issues are available.



Gold, silver, and lapis head from exhibition

Christopher Dorman

## Slabsides Day

John Burroughs (1837-1921) was a leading literary critic and a pioneer in the new school of nature writing. The John Burroughs Association maintains Slabsides, the rustic cabin where Burroughs studied nature and wrote some of his essays. Join the friends of the association on Saturday, October

1, for a program at Slabsides. The open house, which will feature free talks and nature walks in the sanctuary, will begin at noon.

Slabsides is located in West Park, New York, on the Hudson River, 80 miles north of New York and 10 miles south of Kingston. For more information call (212) 769-5169.



John Burroughs fishing in Esopus Creek

AMNH 534135

## Fall Children's Workshops

### A Whale's Tale

Age 4 (each child must be accompanied by an adult)

Children will help tell the tale of a humpback whale's migration from the warm waters of the south to the colder northern seas. Film, song, a take-home sheet activity, and a visit to the Hall of Ocean Life are included. Presented by Dayna Reist, instructor at the New York Aquarium and specialist in early childhood education. Sunday, Oct. 16, 10:30-11:30 a.m. \$25

### Storytime

Age 5 (each child must be accompanied by an adult)

Participants hear stories from around the world, talk about myths, and learn how animals live. They'll handle specimens and artifacts related to the stories. Presented by Ron Sopyla, instructor at the Westside Montessori School. Tuesdays, Oct. 18 or 25, or Nov. 15 or 22, 2:30-3:30 p.m. \$25.

### All About Fish

Age 5 (each child must be accompanied by an adult)

Children will learn about fish shapes and how fish breathe and swim in a hands-on program that includes

making fishprints, visiting the Hall of Ocean Life, and creating fish windsocks. Presented by Judith Levy, who has taught at the Carnegie Museum of Art. Sunday, Nov. 6, 10:30 a.m.-noon. \$25.

### What Is that Smell?

Ages 6 and 7 (each child must be accompanied by an adult)

A guessing game will teach children how the sense of smell provides clues about the environment. They'll make a fruit pomander and decorate a container to hold potpourri. Presented by artist and craftswoman Robin Otton. Sunday, Oct. 23, 10:30-11:30 a.m. \$25.

### How the Fox Got a Huge Mouth: Storytelling through Dance

Ages 6 and 7

Children explore a variety of animal characters through folktales and movement, and they'll make animal props for each character. The props will be used in a short performance for families that concludes the program. Performance time is 1:00 p.m. Presented by Debra Weiss, artistic director for the Debra Weiss Dance Company. Sunday, Nov. 6, 10:30 a.m.-1:30 p.m. \$25.

### How We Hear and How We See

Ages 7 and 8

Exciting experiments focused on vision and hearing are featured in a workshop in which children make drums and kaleidoscopes. Presented by Dina Schlesinger, computer science teacher, PS 140. Sunday, Oct. 16, 10:30 a.m.-1:00 p.m. \$25.

### Drawing Early Mammal Fossils

Age 8

Children learn the fundamentals of drawing with pen and ink, watercolor techniques, and contour drawing. They will study basic mammal anatomy and sketch in the Hall of Early Mammals. Presented by Angela Tripi-Weiss, art director at PS 87. Sunday, Nov. 6, 10:30 a.m.-1:30 p.m. \$25.

### Microscopic Adventures

Ages 8-10

The miniature world of fish, scales, feathers, fur, crystals, and insects comes to life under the microscope. Participants can bring their own "dust bunnies" or small objects to view under the microscope. Presented by Uta Gore, senior science educator in the Education Department. Saturday, Nov. 5, 10:30 a.m.-12:30 p.m. \$25.

### Human Origins

Ages 10-12

Children study human origins using museum casts of fossil ancestors to broadly trace our evolutionary lineage and those of other primates. A session in the laboratory using skeletal material of both

modern humans and chimpanzees will help to define their connections, similarities, and differences. Presented by Anita Steinhart, physical anthropology doctoral candidate. Two Sundays, Oct. 16 and 23, 10:30 a.m.-12:30 p.m. \$30.

### DEPARTMENT OF EDUCATION Workshops for Young People

I would like to register for the following workshop(s):

Workshop: \_\_\_\_\_

Workshop: \_\_\_\_\_

Student's last name: \_\_\_\_\_ First: \_\_\_\_\_

Age: \_\_\_\_\_ Grade: \_\_\_\_\_

Parent's last name: \_\_\_\_\_ First: \_\_\_\_\_

Daytime phone (area code): \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Total amount enclosed: \_\_\_\_\_

Method of payment ☐ Check ☐ Visa ☐ Mastercard

Credit Card No.: \_\_\_\_\_

Expiration Date: Month: \_\_\_\_\_ Year: \_\_\_\_\_

Register early. Class sizes are limited. Separate check per workshop or course. Please note that due to limited registration discounts are not available for these workshops. Send this coupon with your check or money order payable to the American Museum of Natural History and a **self-addressed, stamped envelope** to: Workshops for Young People, Department of Education, American Museum of Natural History, 79th Street and Central Park West, New York, NY 10024-5192.





Caravan from the Morden-Clark Asiatic Expedition of 1926-27

## Highlights Tours

A two-hour walking tour uncovers the origins of the largest natural history collection in the world. *The American Museum: From History to Legend* will tell the tales of men and women who risked

lives and fortunes to explore the ends of the earth, and it will bring to light many of the hidden stories behind the Museum's treasures.

The free tours will take place on Friday, September

9, at 6:00 p.m., and Saturday, September 10, at 4:00 p.m. The tours will convene at the entrance to the Hall of African Mammals on the second floor. For more information call (212) 769-5562.

## Expeditions of Discovery

We are looking for volunteers to work in *Expeditions of Discovery*, an exciting new Museum venture to be launched next month as part of our 125th anniversary celebration. These specially selected and trained volunteers will assist visitors on a quest for Museum treasures

by answering questions, providing guidance, and distributing materials to Museum explorers. They will be stationed at a base camp or at one of eight field stations located on all four floors of the Museum.

Expedition volunteers must contribute either a 3.5-hour

engagement each week on a weekday or a 3.5-hour commitment on alternate weekends. Training is mandatory and will begin after acceptance into the program.

For further information and an application, call Donna Sethi of the Volunteer Office at (212) 769-5523.

## Roy Chapman Andrews would be proud of our new Museum "Expedition Hat"

For 125 years, scientists from the American Museum of Natural History have braved harsh elements, rugged terrain, and the blazing sun in their quest to unlock the earth's mysteries. In their explorations around the globe, they would don this distinctive, wide-brimmed canvas hat for protection and comfort. Now, for the explorer in all of us, this classic Museum head gear can be yours.

Worn by such legendary Museum explorers as Roy Chapman Andrews — said to be the inspiration for Hollywood's "Indiana Jones" — on his expeditions to China and Mongolia in the 1920s, the rugged American Museum of Natural History Expedition Hat goes anywhere. It's made of 100% natural, double-thick, pre-shrunk cotton canvas, and features a 3-1/2" brim, brass grommets, and

a chin strap with adjustable Nexus cordlock. It crushes for easy travel. Best of all, each purchase benefits the Museum and the new expeditions launched each year.

**The American Museum of Natural History Expedition Hat, \$29.** Add \$4 for shipping and handling.

**To order, call toll-free: 1-800-852-0925.**

Major credit cards accepted. Sizes S-XXL available. Satisfaction guaranteed or return within 30 days for full refund.



**American Museum of Natural History**  
Central Park West at 79th Street, NY, NY, 10024 1-800-852-0925

### Expedition Hat

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Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Daytime telephone: \_\_\_\_\_

Size (S-XXL): \_\_\_\_\_

Total amount enclosed (include sales tax, if applicable): \_\_\_\_\_

Please make your check payable to the American Museum of Natural History and mail with coupon to: *AMNH Expedition Hat*, Central Park West at 79th Street, New York, NY 10024-5192.

## American Museum of Natural History

### FIRST ANNUAL FAMILY PARTY

**Wednesday, October 19**

**6:00-8:00 p.m.**

Arts and crafts, science and educational activities,  
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festive food

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(212) 769-5166

## AMERICAN MUSEUM OF NATURAL HISTORY

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with the  
First Annual

**Family Party**

**Wednesday, October 19**

Please send me (indicate how many of each):

\_\_\_\_ Children's ticket(s) at \$35 each

\_\_\_\_ Adult ticket(s) at \$75 each

\_\_\_\_ Family package (any combination of 4 tickets) at \$200 each

Enclosed is my check for \$\_\_\_\_\_

(Each ticket is tax deductible less \$35)

\_\_\_\_ Please send me an invitation.

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Address: \_\_\_\_\_

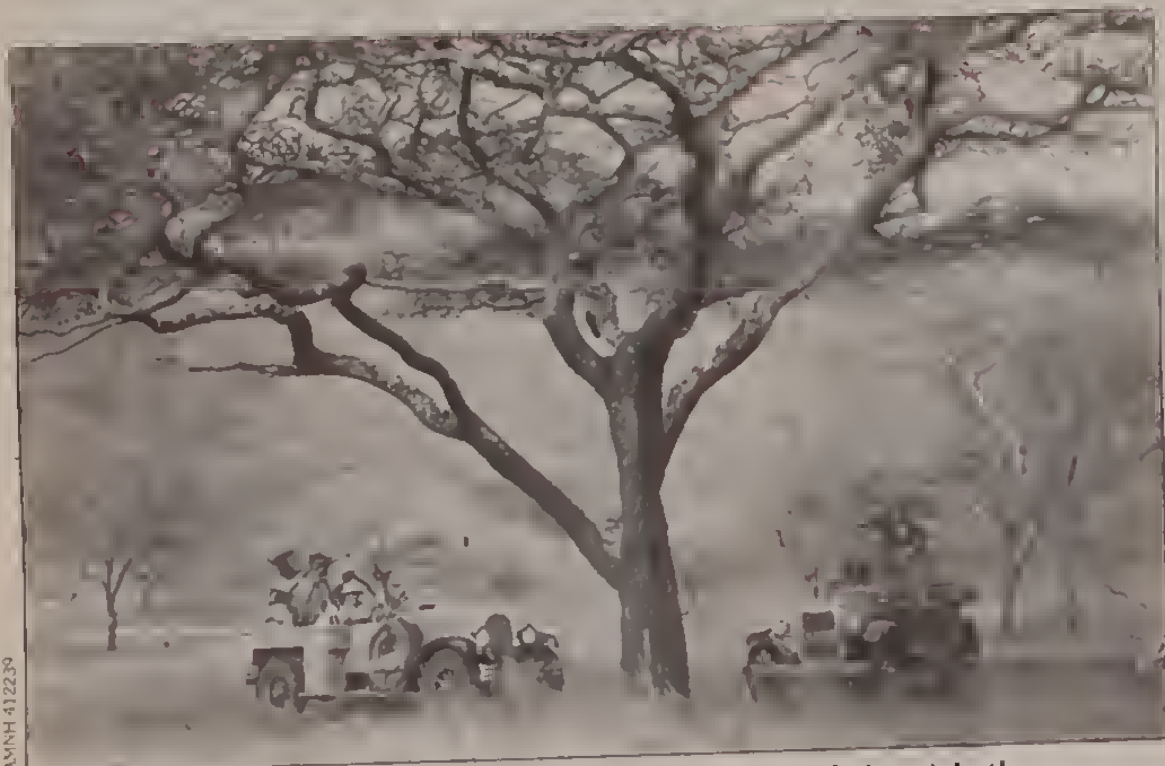
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Daytime telephone: \_\_\_\_\_

Please make checks payable to the American Museum of Natural History and mail with coupon to: *The Family Party*, American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192.



## The First 125 Years



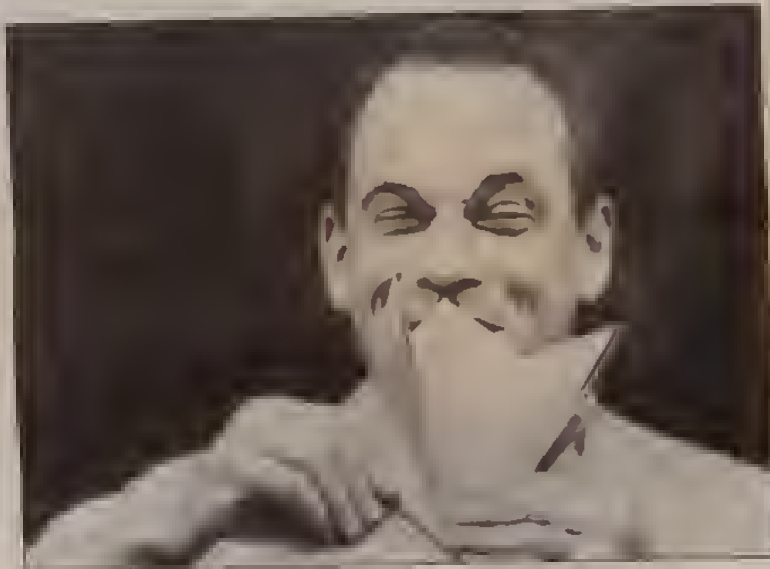
A special exhibition of specimens and photographs will chronicle the Museum's growth and development from 1869 to the present. The First 125 Years will open next month in the hall of Birds of the World on the second floor. A companion exhibition of photographs, People and Places, will go on display in the Akeley Gallery. The photo above was taken in Tongonyiko on the Akeley-Eostmon-Pomeroy Expedition of 1926-27.

## Learn and Teach Origami

In these special classes for volunteers, origami specialist Michael Shall will instruct beginners in the art of folding. Students start with simple models like the swan, sailboat, and jumping frog and progress to more complicated models like the flapping bird and omega star.

The sessions will be conducted from 6.30 to 8:30 p.m. on six Wednesdays: September 21, October 5, 12, and 26, and November 2 and 9. Please note that the classes are progressive: each lesson builds upon teachings from the previous class.

The classes are free, with all materials provided. In exchange, students are expected to repay the 12 class hours as origami volunteers, helping teach at the annual Origami Holiday Tree as well as the spring and summer



Michael Shall

origami tables. The teaching tables are staffed at all times during Museum hours in the holiday season, including weekends and evenings.

Enrollment is limited to 25

students and open only to those who have never participated in this program. Registration is on a first-come, first-served basis. To register, call (212) 769-5566.

## Young Members' Birthday Parties at the Museum

*Celebrate Your Birthday with Relatives and Friends*

We'll provide the relatives — extinct ones, that is. Many of these kinfolks will be strangers, and others will just be strange, and you'll do a little climbing through their family trees. At the new Lila Acheson Wallace Wing of Mammals and Their Extinct Relatives, you'll get acquainted with some prehistoric beasts like mammoths, mastodons, and saber-toothed cats and discover which of these creatures are gone forever and which have modern cousins.

You bring the friends (and the cake), and we'll play games, make a mammalian family memento, and party away for two hours. It will be a birthday that won't fade into oblivion!

The Membership Office sponsors other theme parties for Members between the ages of 5 and 10 that focus on dinosaurs, African mammals, reptiles and amphibians, ocean dwellers, and Native Americans.

The group should be no

fewer than 10 and no more than 20. The fee is \$275 plus \$15 per child and covers all materials and the services of a Museum party coordinator. The coordinator will help you plan a party that suits your child's tastes and will handle everything from candles to party favors. All you need to do is bring the cake and help escort the guests.

For more information about the birthday parties, call the Membership Office at (212) 769-5542.

## Eco Impact Forum

On Thursday, September 29, at 6:30 p.m., lecturer Bob Cook presents *Restoring Amphibians and Reptiles in the Urban Environment*. Cook is a natural resources specialist at Gateway National Recreational Park.

This free program is part of an ongoing series of lectures

that focus on environmental issues of concern to the greater metropolitan area. No tickets or reservations are necessary for the one-hour lecture, which will take place in the Linder Theater.

For additional information about the program call (212) 769-5750.

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and towns along the great rail  
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the Gobi, Ulan Bator, Ulan Ude,  
Lake Baikal, Irkutsk, Novosibirsk,  
Yaroslavl and Moscow  
**Train, Ocean Express**  
**Price:** \$6,980 per person

**BELJING TO HANOI**  
**October 25 - Nov. 12, 1994**  
 Ancient cities and stunning land  
 scapes of China and Vietnam,  
 including Beijing, Xi'an,  
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 and Haiphong, plus Hong Kong  
 and an optional post trip extension  
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**ISTANBUL TO DAMASCUS**  
**April 20 - May 4, 1995**  
*Great cities, archeological sites*  
*and stunning landscapes including*  
 Istanbul, Ephesus, Aphrodisias,  
 Pamukkale, Hierapolis, Konya,  
 Cappadocia, Antioch, Aleppo,  
 Hama, Palmyra, Crusader Castles,  
 Maalula and Damascus  
**Train: Arabian Express**  
**Price: \$6,590-\$7,990 per person.**

**FOR MORE INFORMATION**

**ANCIENT CIVILIZATIONS  
OF MEXICO**  
**March 3-15, 1995**  
The magnificent cities and ceremonial centers of Mexico's ancient civilizations including Palenque, Teotihuacan, El Tajin, Tres Zapotes, San Lorenzo, Bonampak and Yaxchilan.  
**Price: \$3,195 per person.**

**THE PEOPLES OF TANZANIA: Traditional and Contemporary Lifestyles**  
**March 3-19, 1995**  
 An intensive examination of lifestyles of different remote peoples of northern Tanzania, as well as visits to the great wildlife refuges of Ngorongoro Crater and the Serengeti Plains.  
**Price:** \$8,987 per person, round-trip from New York.



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# Courses for Stargazers



## ASTRONOMY: BASIC COURSES

### Introduction to Astronomy

Eight Mondays, beginning Sept. 19 or eight Tuesdays, beginning Sept. 20; 6:30-8:40 p.m. \$85.50 for Members \$95 for non-Members

A first course in astronomy, designed to introduce the many interesting aspects of the universe to those without a math or physics background. Topics include earth as a planet, the moon, the solar system, the stars, the Milky Way, galaxies, quasars, and black holes. Common observations such as planet motions and the rising and setting of the sun and moon are explained. No previous knowledge of astronomy is assumed. The course serves as a prerequisite for the intermediate level courses.

### Adventures in Astronomy

Five Saturdays, beginning Sept. 24; 9:40-11:40 a.m. \$67.50 for Members \$75 for non-Members

Confused about the difference between a star and a planet? Can't tell astronomy from astrology? Don't know Aquarius from Sagittarius or a black hole from a brown dwarf? Join us for a new Saturday course for the whole family (ages 10 and up). Through the use of the Sky Theater, labs, and astronomical equipment, we will explore the birth and death of stars, the origin of the universe, the search for extraterrestrial life, and the current night sky. The class meets in the Sky Theater for the first hour and in Classroom 1 for the second hour. Instructor: Craig Small.

### How to Use a Telescope

Eight Mondays, beginning Sept. 19; 6:30-8:40 p.m. \$85.50 for Members \$95 for non-Members

An introduction to choosing and using a small amateur telescope. Topics include basic optics of telescopes, equatorial and altitude-azimuth mountings, eyepieces, collimating a telescope, setting up for observation, locating objects in the sky, and the use of charts and other obser-

vation aids. No previous knowledge of astronomy is assumed, and this course is particularly recommended for those considering the purchase of a telescope and those who have one but aren't sure how to use it. Instructor: Sam Storch.

### Celestial Highlights

Four selected Mondays: Sept. 19, Oct. 17, Nov. 14, Dec. 12; 6:30-7:40 p.m. \$36 for Members \$40 for non-Members

This course will focus on the interesting and exciting events in the skies of the coming month. The night sky will be accurately simulated by the Zeiss projector in the Sky Theater, and students will learn how to find the prominent constellations of the season and where and when to see gatherings of the moon and planets. The Planetarium's extensive collection of special effects will illustrate upcoming celestial events, including meteor showers and eclipses. Students will also learn about prominent planets, current space missions, and how to find deep-space treasures like nebulae, star clusters, and galaxies that are visible through binoculars or small telescopes. Instructors: Joe Rao and Henry Bartol.

## ASTRONOMY: INTERMEDIATE COURSES

### From Copernicus to Einstein

Six Wednesdays, beginning Sept. 21; 6:30-8:40 p.m. \$76.50 for Members \$85 for non-Members

This survey course explores four of the great scientific ideas that led to revolutionary changes in astronomy and physics: the mechanical certainty of Copernicus' astronomy, Galileo's physics and astronomy, Newton's physics, and Einstein's relativity of time and space. Students examine nonmathematical presentations of the theories, which are placed in historical context and represented schematically. No formal training in physics or math is required. Instructor: William Dorsey.

### Space in Perspective: The World Out There

Eight Tuesdays, beginning Sept. 20; 6:30-8:40 p.m. \$85.50 for Members \$95 for non-Members

Michael Allison of NASA's Goddard Institute for Space Studies conducts this survey of the physical universe from the perspective of contemporary space science. Topics include recent results from COBE, Hubble, and other earth-orbiting observatories and interplanetary spacecraft. This overview begins with the physical working of stars and galaxies and introduces concepts of modern cosmology and elementary particle physics. One evening will be devoted to an in-depth consideration of optional topics, guided by the students' interests. An illustrated review of the solar system, including a discussion of extraterrestrial weather and geophysics, will also be featured.

## METEOROLOGY

### Weather and Climate

Eight Thursdays, beginning Sept. 22; 6:30-8:40 p.m. \$85.50 for Members \$95 for non-Members

Everyone talks about the weather. This course is for those who would like to know more about the atmosphere — how it works and how it affects us. Topics include the structure and motions of the atmosphere, climate, weather forecasting, and atmospheric optics such as rainbows, halos, and twinkling stars. No formal training in physics or math is required. Instructor: Barry Grossman.

## AVIATION

### Ground School for Private and Commercial Pilots

Fifteen sessions, Tuesdays and Thursdays, beginning Sept. 20; 6:30-9:00 p.m. \$166.50 for Members \$185 for non-Members

This course helps private and commercial pilots prepare for the FAA written examinations. It can also help as a refresher for biennial flight reviews, relieve some instances of fear of flying, and survey some aspects of flight training and aircraft ownership. Subjects include physiological factors affecting pilot performance, visual and electronic navigation (VOR, ADF, DME, SAT, NAV, GRF, and LORAN), charts, publications, computers, principles of aerodynamics, weather, instruments, engine/propeller operations, communications, regulations, and safety. Students will plan cross-country trips and may use the flight-deck simulator. Instructor: Ted Cone.

### Ground School for Instrument Pilots

Fifteen sessions, Tuesdays and Thursdays, beginning Sept. 20; 6:30-9:00 p.m. \$166.50 for Members \$185 for non-Members

Intended for those planning to take the FAA written examination for an instrument rating. This course also provides updated information for

instrument competency checks and familiarizes VFR pilots with instrument techniques. Subjects include en route approach and departure procedures, applicable federal aviation regulations, psychological factors affecting pilot performance, and extensive use of flight computers in flight planning. Students may use the flight-deck simulator. Instructor: Ted Cone.

## NAVIGATION: BASIC COURSE

### Navigation in Coastal Waters

Eight Mondays, beginning Sept. 19; 6:30-9:00 p.m. \$99 for Members \$110 for non-Members

An introduction to piloting and dead reckoning for present and prospective owners of small boats. The course provides practical chartwork and includes such topics as the compass, bearings, fixes, buoys and lighthouses, the running fix, current vectors and tides, and rules of the nautical road. Boating safety is emphasized. No prerequisites. Students are required to purchase an equipment kit. Instructor: Greg Smith.

## NAVIGATION: INTERMEDIATE COURSES

### Trouble Shooting Celestial Navigation

Four Tuesdays, beginning Sept. 20 or Oct. 18; 6:30-8:40 p.m. \$67.50 for Members \$75 for non-Members

This short course is designed for students who are self-taught or who need practice to navigate by the stars. Sessions will include a review of the basic theory, use of Volume 1 HO 249, the Rude Star Finder and Nautical Almanac for precalculation of star sights, calculation of LAN and twilight for star sights; review of star sights, moon

shots, planet shots, and plotting; and use of celestial computers, sextants, and shooting techniques. Time will be allotted to address the trouble spots that students may have encountered. No text is required; handouts will be provided. Instructor: David Berson.

## Introduction to Celestial Navigation

Ten Thursdays, beginning Sept. 22; 6:30-8:40 p.m. \$99 for Members \$110 for non-Members

This course is for those who have completed *Navigation in Coastal Waters* or who have equivalent piloting experience. The course covers the theory and practice of celestial navigation, the sextant and its use, and the complete solution for a line of position. Problem solving and chartwork are emphasized. Students are required to purchase a copy of *Sight-Reduction Tables for Marine Navigation, Volume 3* (Pub. No. 229). Instructor: Greg Smith.

## Astronomy for Celestial Navigators

Eight Wednesdays, beginning Sept. 21; 6:30-8:40 p.m. \$85.50 for Members \$95 for non-Members

This new course is designed for students who are already familiar with navigating by the stars but want to know more about the astronomy behind celestial navigation. Topics include systems of celestial coordinates and the navigational triangle; the absolute motions and distances of the navigational stars, planets, and the moon; the motions of the earth in the solar system; planetary and lunar configurations as observed from earth; and many other subjects. *Introduction to Celestial Navigation* or equivalent experience required. Instructor: Harold Parnham.

## Courses for Stargazers

I would like to register for the following Planetarium course(s):

Name of course: \_\_\_\_\_

Price: \_\_\_\_\_ Please note that discount prices apply only to Participating and Higher Members.)

Class beginning: \_\_\_\_\_

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Daytime telephone: \_\_\_\_\_

Membership category: \_\_\_\_\_

Please mail this coupon with your check payable to the American Museum-Hayden Planetarium to: Courses for Stargazers, Hayden Planetarium, Central Park West at 81st Street, New York, NY 10024-S192. Registration by mail is strongly recommended and is accepted until seven days preceding the first class. For additional information, call (212) 769-S900, Monday-Friday, 9:30 a.m.-4:30 p.m. **No credit cards accepted. Do not include ticket requests or checks for American Museum programs.**



# Museum Notes



Filming the excavation of dinosaur eggs during the 1920s expeditions in Mongolia

## Hours

Exhibition Halls	
Mon.-Thurs. & Sun.	10:00 a.m.-5:45 p.m.
Fri. & Sat.	10:00 a.m.-8:45 p.m.
The Museum Shop	
Mon.-Thurs. & Sun.	10:00 a.m.-5:45 p.m.
Fri. & Sat.	10:00 a.m.-7:45 p.m.
The Junior Shop	
Mon.-Fri.	10:00 a.m.-4:45 p.m.
Sat. & Sun.	10:00 a.m.-5:45 p.m.
The Museum Library	
Tues.-Fri.	11:00 a.m.-4:00 p.m.
The Discovery Room	
Closed for the month of September.	
The Natural Science Center	
Closed for the month of September.	

## Museum Dining

Diner Saurus Fast Service Eatery	
Daily	11:00 a.m.-4:45 p.m.
Garden Cafe	
Reservations: (212) 769-5865	
Lunch: Mon.-Fri.	11:30 a.m.-3:30 p.m.
Dinner: Fri. & Sat.	5:00-7:30 p.m.
Brunch: Sat. & Sun.	11:00 a.m.-4:00 p.m.
Whale's Lair	
Fri.	3:00-8:00 p.m.
Sat.	Noon-8:00 p.m.
Sun. & most holidays	Noon-5:00 p.m.
Snack Carts (at 77th Street & on the first floor of the Roosevelt Memorial Hall)	
Sat. & Sun.	11:00 a.m.-4:00 p.m.

## Entrances

During Museum hours visitors can enter the building through the 77th Street entrance, the parking lot entrance (81st Street), or the Roosevelt Memorial Hall entrance (79th Street and Central Park West). **Visitors attending programs after hours can enter the building through the driveway entrance at 79th Street and Central Park West.**

## Parking

The Museum's parking lot is located on 81st Street between Central Park West and Columbus Avenue. Space is limited and available on a first-come, first-served basis; fees are \$12 for cars and \$11 for buses. The lot is open from 9:30 a.m. to

9:30 p.m. on Sunday through Thursday and from 9:30 a.m. to midnight on Friday and Saturday. Hertz Manhattan, located one block away from the Museum at 210 West 77th Street (between Broadway and Amsterdam), offers parking discounts to Members: on Monday through Friday Members receive a \$2 discount off regular prices and on Saturday and Sunday they receive a \$3 discount.

Call the Membership Office at (212) 769-5606 for information about alternative parking.

## Museum Tours

Free Museum Highlights Tours are available to individuals and families. Tours are conducted daily at 10:15 and 11:15 a.m., 1:15, 2:15, and 3:15 p.m. and depart from the second floor between the Roosevelt Rotunda and the Hall of African Mammals.

Group Tours are available for a fee. All Group Tours must be scheduled through the Volunteer Office. For details, call (212) 769-5566.

## Phone Numbers

Museum information	(212) 769-5100
Membership information (for questions about Museum events)	(212) 769-5606
Participating Members' Customer Service (for questions and problems related to Rotunda and Natural History magazine — missed issues, address changes, and other information)	(800) 283-AMNH
Planetarium information	(212) 769-5900
Education Department	(212) 769-5310
Discovery Tours	(212) 769-5700
.....toll-free outside NY State:	(800) 462-8687
Naturemax	(212) 769-5650
Development/Public Affairs	(212) 769-5270
Volunteer Office	(212) 769-5566
Museum Shop	(212) 769-5150
Library Services	(212) 769-5400
Natural History magazine	(212) 769-5500
Members' Book Program	(212) 769-5500

# Happenings at the Hayden

## Exhibition

### Man on the Moon: The Apollo Adventure (through Sept. 30)

This special exhibition, which marks the twenty-fifth anniversary of the Apollo 11 moon landing, features replicas of the original Apollo 11 lunar module, the Eagle, and the Lunar Rover used on the moon, that were created with thousands of ERECTOR® set pieces. Also on display are memorabilia from the Apollo flights, Apollo mission photos from NASA, and a moon map, as well as a special section devoted to Project Clementine, the next mission to the moon, and an ongoing presentation of the award-winning film *The Eagle Has Landed*.

## Sky Shows

### Update: The Universe

New discoveries from space are revealed on a daily basis, including information about black holes, new planets, and colliding galaxies. In this fast-paced, "news magazine" presentation, you'll get an astronomy update and look through the new windows on the universe that astronomers have opened with the latest technology.

In the past three years space telescopes such as the Compton Gamma Ray Observatory, the European ROSAT, and the recently overhauled Hubble Space Telescope have been exploring the universe from space, in light that never reaches our eyes. At the same time, giant earth-bound telescopes scan the heavens, searching for signs of intelligent life in our galaxy. *Update: The Universe* explores cutting-edge research from the quest for extraterrestrial life to studies that peel back time in search of the dawn of creation.

**Note:** There will be no Sky Show from Tuesday, September 6, through Sunday, October 2, due to theater renovations. Please call (212) 769-5100 to verify schedule.

Showtimes:	
Mon.-Fri.	1:30 and 3:30 p.m.
Sat. & Sun.	1:00, 2:00, 3:00, and 4:00 p.m.
Admission (Participating and Higher Members):	
Adults:	\$4
Children (2-12):	\$2

Call (212) 769-5100 for non-Members' prices and additional information. Please note that prices and schedule are subject to change without prior notice.

## Children's Shows

*Wonderful Sky* is a special Sky Show for preschoolers. Children sing along with images of their favorite Sesame Street Muppets as they learn about rainbows, the phases of the moon, sunsets, and stars. Sat., Oct. 8, at 10:30 and 11:45 a.m., and Sat., Nov. 5, at 10:30 a.m. Admission for Participating and Higher Members is \$4 for adults and \$2 for children. Members can purchase up to four tickets at the Members' price.

Shows usually sell out in advance; reservations, by mail only, are necessary. Make your check payable to the Hayden Planetarium (attn: Wonderful Sky, Central Park West at 81st Street, New York, NY 10024-5192), indicate membership category and a first and second choice of showtimes. Be sure to include a self-addressed, stamped envelope and your daytime telephone number. For additional information call (212) 769-5900.

*Robots in Space* features Lucasfilm's R2D2 and C-3PO and has been created especially for children ages 7 to 12. Together with a live host, these famous space robots take children on a tour of the universe. See how satellites and probes — the real space robots — help us learn about worlds near and far. Journey from the earth to other planets and distant black holes. Sat., Nov. 5, at 11:45 a.m. Admission for Participating and Higher Members is \$4 for adults and \$2 for children. For additional information, call (212) 769-5900.

## Laser Shows

Journey into another dimension where laser visuals and rock music combine to create a dazzling 3-D experience of sight and sound. Shows are presented on Fridays and Saturdays at 7:00, 8:30, and 10:00 p.m. For prices and show schedule, telephone (212) 769-5100.

**It's always a good idea to call before visiting the Planetarium, since prices, programs, and showtimes are subject to change without notice. For general Planetarium information, call (212) 769-5100.**

## Naturemax



Zebras cluster together in a tangle of stripes to confuse predators

The new IMAX film *Africa: The Serengeti* explores the relationships between predator and prey by following the great migration of wildebeests, zebras, and other animals. Showtimes as of September 9 are 10:30 and 11:30 a.m. and 1:30 and 3:30 p.m. daily.

*Yellowstone* takes viewers on a journey to discover the wildlife and natural beauty of the national park. Showtimes are 12:30, 2:30, and 4:30 p.m.

On Friday and Saturday at 6:00 and 7:30 p.m., *Africa: The Serengeti* is shown on a double bill with *Yellowstone*. Schedules and prices are subject to change without notice. Call (212) 769-5650 for further information.

**Admission** (Participating and Higher Members)  
Adults: \$4.75 single feature; \$6 double feature  
Children: \$2.25 single feature; \$3.25 double feature



Sun	Mon	Tue	Wed	Thu	Fri	Sat
				1	2	3

# September 1994 American Museum of Natural History

4	5	6	7	8
	Labor Day. The Museum is open.	Rosh Hashanah.		



11	12	13	14	15	16	17
1:30 p.m. Aussie Porta Puppets. Members' family program. Linder Theater. \$6 for Members, \$8 for non-Members, and one grandparent admitted free with each paying grandchild in honor of Grandparents' Day. Page 2.		7:00 p.m. Celebrating Our Mistakes: Stories and Songs for the New Year. Members' evening program. Main Auditorium. \$15 for Members, \$20 for non-Members. Page 2.	5:30 p.m. NY Mineralogical Club Room 319. Free.	Yom Kippur.	11:00 a.m.-2:30 p.m. Members' Walking Tour of the Financial District and the Federal Reserve Bank. \$25, and open only to Participating and Higher Members. Tickets required. Page 4.	11:00 a.m., 1:00 and 3:00 p.m. Insects: A Behind-the-Scenes Tour. Sign language tour of the Department of Entomology. Free, but advance registration required. Call (212) 769-5566 (TTY users: 1-800-662-1220 relay) for information.

2:00 p.m. NY Shell Club. Room 319. Free.

18	19	20	21	22	23	24
2:00 p.m. NY Paleontological Society. Room 319. Free.				6:00-9:00 p.m. Members' private viewing of Empires Beyond the Great Wall: The Heritage of Genghis Khan. Gallery 77. Page 1.		7:30 a.m.-7:30 p.m. Members' Day Trip to a Pennsylvania Coal Mine. \$60, and open only to Participating and Higher Members. Tickets required. Page 3. <b>SOLD OUT.</b>



25	28	29	30
		6:30 p.m. Eco Impact Forum. Speaker, Bob Cook: "Restoring Reptiles and Amphibians in the Urban Environment." Page 12.	
		7:00 p.m. Birth Control in the Ancient World. Members' evening program. Kaufmann Theater. \$8 for Members, \$12 for non-Members. Page 2.	

**Too Much Mail?**

The Membership Office recently mailed a letter to prospective Members asking them to join the Museum. In spite of our best efforts to remove the names of our current Members from this mailing, you may have received one of these letters. Please accept our apology. Would you consider passing the letter on to a friend? Your help in reaching new Members is greatly appreciated.



# POTUNDA

Vol. 19, No. 9 October 1994

For Participating and Higher Members of the American Museum of Natural History



Frans Lanting

## Okavango: Africa's Last Eden

Thursday, October 6

7:00 p.m.

Main Auditorium

\$10 for Members, \$15 for non-Members

When Frans Lanting first visited southern Africa's Okavango Delta on assignment for *National Geographic*, he envisioned a six-week project. Instead, his work blossomed into an unprecedented undertaking that stretched over two years. He found an Africa he thought no longer existed — a wetland oasis of more than 8,500 square miles in the middle of Botswana's Kalahari Desert with a

remarkable richness and diversity of wildlife.

The spectacular photographs he took at the Okavango were published in *National Geographic*, helping the publication win the National Magazine Award for excellence in photography and earning Lanting the BBC title of Wildlife Photographer of the Year.

Last year this body of work was published as *Okavango: Africa's Last*

*Eden* (Chronicle Books). In words and images Lanting tells the miraculous story of a river that dies in the desert to give rise to one of the greatest wetlands on the planet. The book is also a personal account of Lanting's year among lions, elephants, and hippos.

Lanting will talk with Members about his work in Okavango and share his photographs of the region's

landscapes and wildlife, including pictures of leopards, crocodiles, zebras, giraffes, hyenas, impalas, and the continent's last great unharassed herds of elephants. Copies of his book will be available for purchase, and Lanting will sign copies after the show.

Use the October Members' programs coupon on page 3 to register for the program.

## Empires Beyond the Great Wall

Bronze weapons, silk garments, pottery, porcelain, and gold and silver plates and vessels are among the priceless treasures of the current Gallery 77 exhibition. Artifacts from the second millennium BC up to the era of Genghis Khan and the Yuan dynasty of the thirteenth and fourteenth centuries are on display in *Empires Beyond the Great Wall*. See page 3 for details about Members' tours and a related program.



Gold mask

Natural History Museum at LA County

## Royal Tombs of Sipán

A dazzling array of artifacts from the richest graves ever excavated in the Americas is on display in Gallery 3. *Royal Tombs of Sipán* offers fascinating insights into the lives of the Moche, who dominated the coastal region of northern Peru from AD 100 to 800.

Admission to the exhibition, which will be on display through December, is \$4 for adult Members and \$2 for Members' children.



Finned pectoral

Christopher Danner



## Eyes of the World

Wednesday, November 9  
7:00 p.m.  
Kaufmann Theater  
\$7 for Members, \$10 for non-Members

Catch a glimpse of one of the world's most phenomenal gems — the 18.50 cat's-eye alexandrite — and meet the miner, Henry F. Kennedy. This rare gemstone is green in sunlight, changes to purplish red in candlelight, and sports a mesmerizing white eye that follows the viewer in the same manner as the eyes of the Mona Lisa.

Alexandrite was discovered in the Ural Mountains in 1830 and named after Czar Alexander II of Russia. The gem's colors, red and green, were the same as those of the Russian Imperial Guard.

Specimens of alexandrite with a cat's eye are so rare and expensive that most museum collections don't possess an example. This gemstone weighed 73 carats in the rough and is reputedly the largest and finest of its

kind ever found in the Americas. Its dramatic color change is attributable to the trace element of chromium, which also causes the emerald to appear green and the ruby red.

Alexandrite is seldom encountered in situ; and Kennedy will explain how he traced the elusive chrysoberyl to its source, the granite pegmatite. He'll reveal how the cat's-eye cutters orientate this optical effect, and Members will see the rough gem material "come alive."

A New Jersey native, Kennedy resides in Brazil. After the slide show, the audience will observe his eye-opening exhibit of phenomenal gems, including cat's eyes in emerald, aquamarine, chrysoberyl, and ruby. Use the coupon on page 3 to register.



Henry F. Kennedy

## Female Genital Mutilation

Wednesday, November 30  
7:00 p.m.  
Kaufmann Theater  
\$7 for Members, \$10 for non-Members

Eighty-five to 114 million girls and women in the world undergo some form of genital mutilation. Most live in Africa, a few in Asia, and increasingly, there are more women in Europe, Canada, and the United States who have suffered female genital mutilation (FGM). In addition to its physical hazards FGM represents an extreme example of efforts common to societies around the world to suppress women's sexuality, ensure their subjugation, and

control their reproductive functions.

Nahid Toubia, a physician from Sudan and women's health activist, will talk with Members about the issues surrounding FGM (also called female circumcision). She'll describe the practice of FGM as a coming-of-age ritual and its cultural significance in relation to ideals of health and beauty, religion and morality, and male approval and protection. The complications and effects of FGM,

which is mainly performed on children, will be discussed.

Toubia is an associate professor at Columbia University School of Public Health and a member of several scientific and technical advisory committees of the World Health Organization and the Human Rights Watch. She'll describe international attempts to stop FGM that focus on changing attitudes without threatening cultural integrity.

Use the coupon on page 3 to register.

## Chemistry for Kids

Saturday, November 5  
11:00 a.m., 1:00 and 3:00 p.m.  
\$7 for Members, \$10 for non-Members  
Appropriate for ages 5-12  
All attendees must have tickets

At the ninth annual presentation of *Chemistry for Kids*, Patricia Ann Redden will demonstrate some fabulous chemical transformations in the Kaufmann Theater. These experiments are especially designed to excite young people with the possibilities offered by the study of science.

Then kids will go to the Edith C. Blum Lecture Room to conduct safe, easy-to-understand experiments of their

own under adult supervision. Those who complete the lab session will earn a Junior Chemist certificate issued by the American Chemical Society's New York Section and the American Museum, and participants can win prizes upon the successful completion of a chemistry quiz that's based on Museum exhibits.

Redden is a professor of chemistry and departmental chairperson at Saint Peter's College in Jersey City. She

has had many years of teaching experience at all grade levels and frequently addresses high school and college science classes in the New York area.

*Chemistry for Kids* is presented in conjunction with the American Chemical Society's observation of National Chemistry Week. Use the coupon on page 3 to register, and please note that both children and adults must have tickets.

## Members' Day Trip to Montauk Point

Saturday, November 19  
7:30 a.m.-7:30 p.m.  
\$60, and open only to Participating and Higher Members  
Appropriate for ages 16 and up



Visit ice-age Long Island

It's a mighty long island, and Members will traverse its "backbone" to the southeastem tip, where a terminal moraine (a series of coalescing hills) marks the southernmost advance of the glaciers some 17,000 years ago. Geologist Sidney Horenstein hosts the excursion, which spotlights the island's history and geology and explores many of the geologic features created by the glaciers.

Long Island has changed dramatically since the glaciers melted away, and participants will see the evidence of the island's transformation while walking on coastal sand dunes, through knob and kettle topography, tombolos, and steep, wave-cut bluffs that rise 30 to 80 feet above the beaches. The lush vegetation of present-day Montauk will be discussed, along with the startling changes it

has undergone since the end of the glacial period.

At Montauk State Park participants will view Montauk Lighthouse, which was built during the years 1795-97. The lighthouse initially stood about 300 feet from the edge of the sea; today it's only 60 feet from the water's edge. A stop at the unusual Shinnecock Canal will illustrate its control of the local coastal ecology.

Horenstein is the Museum's coordinator of environmental public programs and will lead the tour rain or shine. Wear shoes appropriate for walking on sandy and rocky beaches, and bring a bag lunch and beverages. Transportation is by bus, departing from and returning to the Museum. Use the coupon on page 5 to register, and please note that tickets are available only by mail.

## ROTUNDA

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October 1994

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## Empires Beyond the Great Wall

Friday, November 4  
6:00, 6:30, 7:00, and 7:30 p.m.  
Free, and open only to Participating and Higher Members

Gold and silver plates and  
sels, bronze weapons, silk  
ments, pottery, porcelain,  
d funerary ware are among  
e treasures on display in the  
rent Gallery 77 exhibition  
mpires Beyond the Great  
all: The Heritage of  
enghis Khan.  
Members can take guided

tours of the exhibition, which  
features priceless artifacts that  
date from the second millen-  
nium BC up to the era of  
Genghis Khan and the Yuan  
dynasty of the thirteenth and  
fourteenth centuries. Volun-  
teer Highlights Tour guides  
will lead Members around the  
gallery and talk about the

exhibits, which are from the  
collections of seven museums  
of China's Inner Mongolia  
Autonomous Region.

Use the October Members'  
programs coupon to register  
for the Members' tours,  
which are appropriate for  
participants ages 13 and  
older.

## The Cult of the Khan

Tuesday, November 22  
7:00 p.m.  
\$20, and open only to Participating and Higher Members  
Appropriate for ages 16 and up

Most of the rest of the  
world regards him as a savage  
conqueror whose ruthlessness  
was matched only by his  
greed. In his native Mongolia,  
however, Genghis Khan is  
revered as the founder of an  
empire that promoted the  
most extensive cultural and  
commercial interchanges  
between East and West up to  
that time.

Historian Morris Rossabi  
will talk with Members about

the life and career of Genghis  
Khan and his role in modern-  
day Mongolia, where a cult of  
Genghis fuels Mongolian  
nationalism. This program is  
presented in conjunction with  
the Gallery 77 exhibition  
*Empires Beyond the Great  
Wall: The Heritage of  
Genghis Khan*.

A professor of history at  
the City University of New  
York and adjunct professor at  
Columbia University, Rossabi

is the author of *Khubilai  
Khan: His Life and Times*  
(University of California  
Press, 1988). His popular  
Members' program *Genghis  
Khan: Hero or Villain*, which  
was presented last month,  
has led to his return engage-  
ment, and Members are ad-  
vised to register early.

Use the coupon on page 5  
to register, and please note  
that tickets are available only  
by mail.

A tiny nation survives 2,500 years and prospers

## The Samaritans: People of the Sacred Mountain

Thursday, November 17  
7:00 p.m.  
Main Auditorium  
\$7 for Members, \$10 for non-Members

The rituals and lifestyles of  
a Middle Eastern population  
that separated from the Jew-  
ish mainstream more than  
2,500 years ago are the focus  
of the documentary *The  
Samaritans: People of the  
Sacred Mountain*. Filmmaker  
Johanna Spector will intro-  
duce the documentary by  
discussing the history and  
culture of this little-known  
people and the extensive  
research undertaken in the  
film's production.

Considering themselves  
ancient Hebrews rather than  
Jews, the Samaritans derive  
their customs and ceremonies  
from the Samaritan Penta-  
teuch, which differs slightly  
from the Hebrew Five Books  
of Moses. Their observances  
are not influenced by Judaic  
interpretations based on rab-  
binical writings and offer a  
fascinating contrast to those  
of modern Judaism, since the  
Samaritans observe the Sab-  
bath, High Holidays, and  
festivals (Pesach, Shavuot,  
Succot) much as they were  
observed 2,000 years ago.

The film is a remarkable  
ethnographic record of a



Priest dancing during festival on Mt. Gerizim

little-known people who once  
numbered in the hundreds of  
thousands and lived through-  
out the Levant and Egypt.  
Today they still dwell in two  
enclaves — in Holon, Israel,  
and in Nablus, on the West  
Bank of the Jordan. At the  
turn of the century their  
population was 135; in  
1968-70, at the time of  
filming, there were fewer  
than 450 individuals; and  
today, 550.

Johanna Spector, who is a  
music ethnologist, has studied  
the Samaritans for several

decades and sound-recorded  
their entire liturgy and music.  
Her collection is housed at  
the Hebrew University's  
Fonoteka in Jerusalem. She  
will answer questions from  
the audience after screening  
the 30-minute film.

This program is two hours  
long and will be the first in a  
series of Spector's ethno-  
graphic films. Other docu-  
mentaries, which will be  
shown in 1995, will profile  
Jews of India and Yemen.

Use the October Members'  
programs coupon to register.

## October Members' Programs Coupon

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Daytime telephone: \_\_\_\_\_

Membership category: \_\_\_\_\_

Total amount enclosed: \_\_\_\_\_

Please make check (if applicable) payable to the American  
Museum of Natural History and mail with a **self-  
addressed, stamped envelope** to: October Members'  
Programs, Membership Office, American Museum of  
Natural History, Central Park West at 79th Street, New  
York, NY 10024-5192. Telephone reservations are not  
accepted. No refunds or exchanges.

Unless otherwise indicated, no more than eight  
tickets may be ordered for a program. Partici-  
pating Members are entitled to four tickets per  
program at the Members' price, Higher Members  
are entitled to six tickets, and Associate Members  
are entitled to one ticket.

**Okavango.** Thursday, October 6, 7:00 p.m.

Number of Members' tickets at \$10: \_\_\_\_\_

Number of additional tickets at \$15: \_\_\_\_\_

Total amount enclosed for program: \_\_\_\_\_

**Jennie.** Tuesday, October 11, 7:00 p.m.

Number of Members' tickets at \$5: \_\_\_\_\_

Number of additional tickets at \$8: \_\_\_\_\_

Total amount enclosed for program: \_\_\_\_\_

**Ghost Stories.** Friday, October 28.

**For children**

Number of Members' tickets at \$5: \_\_\_\_\_

Number of additional tickets at \$8: \_\_\_\_\_

Total amount enclosed for program: \_\_\_\_\_

**For adults**

Number of Members' tickets at \$8: \_\_\_\_\_

Number of additional tickets at \$12: \_\_\_\_\_

Total amount enclosed for program: \_\_\_\_\_

**Members' Tours of Empires Beyond the Great Wall**

Friday, November 4. Please indicate a first, second, and  
third choice of times.

\_\_\_\_\_ 6:00 p.m. \_\_\_\_\_ 6:30 p.m.

\_\_\_\_\_ 7:00 p.m. \_\_\_\_\_ 7:30 p.m.

Number of free Members' tickets

(No more than 2, please): \_\_\_\_\_

**Chemistry for Kids.** Saturday, November 5.

Please indicate a first and second choice of times.

\_\_\_\_\_ 11:00 a.m. \_\_\_\_\_ 1:00 p.m. \_\_\_\_\_ 3:00 p.m.

Number of Members' tickets at \$7: \_\_\_\_\_

Number of additional tickets at \$10: \_\_\_\_\_

Total amount enclosed for program: \_\_\_\_\_

**Eyes of the World.** Wednesday, November 9, 7:00 p.m.

Number of Members' tickets at \$7: \_\_\_\_\_

Number of additional tickets at \$10: \_\_\_\_\_

Total amount enclosed for program: \_\_\_\_\_

**The Samaritans: People of the Sacred Mountain**

Thursday, November 17, 7:00 p.m.

Number of Members' tickets at \$7: \_\_\_\_\_

Number of additional tickets at \$10: \_\_\_\_\_

Total amount enclosed for program: \_\_\_\_\_

**Female Genital Mutilation.** Wednesday, November 30,  
7:00 p.m.

Number of Members' tickets at \$7: \_\_\_\_\_

Number of additional tickets at \$10: \_\_\_\_\_

Total amount enclosed for program: \_\_\_\_\_

**NOTE:** Orders received less than ten days before  
show dates will be held for pick-up at the door on  
the day of the program if tickets are still available. If  
an event is sold out, you will be advised in writing or  
by phone and your check will be returned.



## Fall 1994 Lecture Series

In addition to the following programs, the Department of Education's Fall 1994 Lecture Series features a four-part program on earthquakes, a guided tour of the Gallery 77 exhibition *Empires Beyond the Great Wall*, and two lectures based on the *Royal Tombs of Sipán* exhibition. For details about these and other programs, call (212) 769-5310.

### A History of Gospel Music: I've Got a Feelin'

Two Thursdays,  
Nov. 3 and 10

This two-part lecture/demonstration, which focuses on a joyous African-American tradition, is hosted by L.D. Frazier. A gospel singer, pianist, and composer, Frazier will have listeners singing, laughing, swaying, and clapping to familiar spirituals, jubilee songs, and gospel music.

Frazier's historical/biographical presentation will

describe the spirit of the black gospel church and its outrageous and spellbinding singers. He'll also discuss his personal experiences of gospel music around the world and augment the presentation with audiotapes and vocal demonstrations.

The program will take place from 7:00 to 8:30 p.m. Tickets are \$18 for Members and \$20 for non-Members.

### Theodore Roosevelt in Africa: His Famous Collecting and Hunting Safari of 1909-10

Thursday, Nov. 3

Amateur entomologist Tweed Roosevelt will discuss his great-grandfather's celebrated 10-month hunting and collecting expedition in Africa. Upon leaving the White House at the age of 50, Theodore Roosevelt mounted the biggest African

safari ever: with as many as 500 bearers, the journey began at Mombassa and ended on the Nile in Egypt. More than 13,000 specimens were collected, some of which can be seen at the Museum. The collection, especially of large mammals, was the largest that has ever been brought out of Africa by a single party.

The program will take place from 7:00 to 8:30 p.m. Tickets are \$13.50 for Members and \$15 for non-Members.

### Museum Mystery Theater: The Mask of Suspicion

Monday, Nov. 7

An ancient ceremonial mask that endows the wearer with special powers was discovered by an anthropologist, who brought it back to the Museum for exhibition. After its display several employees and visitors had strange accidents in the gallery and

sighted specters of historic individuals associated with the Museum. Important and valuable ceremonial objects were missing or inexplicably moved. Could the mask be responsible?

The Education Department and Manhattan Rep Company present an intriguing fiction that explores the culture of the Northwest Coast Indians. A lecture on the origins of the masks of the fictional Bella Mon Indians will offer clues to the mystery's solution. Participants will help solve the puzzle and attend a wine-and-cheese reception.

The program will take place from 7:00 to 8:30 p.m. Tickets are \$22.50 for Members, \$25 for non-Members.

### On the Evolution of the Imagination

Four Tuesdays,  
Nov. 15- Dec. 6

In celebration of its twenty-fifth anniversary, the Touchstone Center of New York

City presents a series of lectures: *On the Evolution of the Imagination: Thoughts, Musings, and Possibilities*. Three of the lectures will feature two speakers each and a short question-and-answer period. The fourth evening is an informal gathering for audience members who wish to share their own thoughts and ideas about the series.

Nov. 15: *The Meaning of Objects*. Anthropologist Ian Tattersall and Alexander Marshack, a research fellow at the Peabody Museum of Archaeology and Ethnology.

Nov. 22: *The Origin of Metaphor*. Poet Elizabeth Sewell and Paul Shepard, Avery professor of Human Ecology at Pitzer College.

Nov. 29: *The Awareness of the Spiritual*. Scholar Roger Lipsey and Hasel Dean-John, Seneca storyteller and linguist.

Dec. 6: *An Evening of Thoughts*. Moderator Richard Lewis is the founder and director of the Touchstone Center in New York City.

All programs will take place between 7:00 and 8:30 p.m. Tickets for the series are \$27 for Members and \$30 for non-Members.

## 1994 Margaret Mead Film and Video Festival

In *The Spirit of TV* (Monday, October 17, at 8:00 p.m.) the Waiāpi Indians discuss the value of video and television as a tool to preserve their traditions. *First Moon*, from the Richard Gordon and Camia Hinton Retrospective, looks at the celebration of Chinese New Year (Thursday, October 13, at 6:30 p.m.). Both films are among this year's features at the Margaret Mead Film and Video Festival. For a complete schedule of films, call (212) 769-5305.

The festival will take place from Wednesday, October 12, through Tuesday, October 18. The films will be shown from 6:30 to 10:30 p.m. on weekdays except for Friday, when they'll be shown from 6:00 to 8:30 p.m. Screenings are from 11:00 a.m. to 8:30 p.m. on Saturday and from 11:00 a.m. to 5:30 p.m. on Sunday.

Daily tickets, which go on sale after 5:00 p.m. on weekdays and 10:30 a.m. on weekends, are \$7 for Members and students with ID and \$8 for non-Members. A festival pass (valid October 12-18) is \$40 for Members and students with ID and \$44 for non-Members. Call (212) 769-5305 for information about pre-purchasing tickets with a credit card and for details about the benefits associated with becoming a Friend of the Festival.



*The Spirit of TV*



*First Moon*

## Voices in Movement

Saturday,  
November 19  
2:00 and 4:00 p.m.  
Kaufmann Theater  
Free

The modern dance troupe Voices in Movement will perform selections from several different satirical works, including "A Tale and Two Chairs" and "Memory Gland." Featured performer Laura Staton possesses a unique style that combines theatrics, physicality, and a Chaplinesque sense of humor. Like silent film, modern dance is a visually expressive art form that consists of distinctive elements such as space, time, rhythm, and gesture. This performance promises to heighten the audience's awareness of movement and other facets of nonverbal communication.

The Voices in Movement program will be signed as well as spoken and is suitable for family audiences. No tickets and no reservations are necessary for this free program, but seating is limited and on a first-come, first-served basis. For additional information call (212) 769-5186.



**Jennie**  
Tuesday, October 11

Ethical questions about the use of primates for research and the attempts to raise chimps among humans are the focus of the Members' program *Jennie*. Author Douglas Preston will explore the blurry line that divides humans and animals and discuss how remarkably close our qualities of humanity are to those of our nearest animal relatives.

As a columnist for *Natural History* magazine, Preston explored the Museum's archives and described his findings in *Dinosaurs in the Attic*. His latest book, *Jennie*, was inspired by one of the true stories from the Museum's past — the tragic tale of Meshie, a chimpanzee raised by a curator along with his own children.

Preston will show actual footage of Meshie from the Museum's archives. He'll recount fascinating case histories of other chimpanzees raised in captivity and discuss the ethical and scientific issues surrounding these efforts. Copies of his novel, which is published by St. Martin's Press, will be available for purchase at the program.

The program will take place at 7:00 p.m. in the Kaufmann Theater. Tickets are \$5 for Members and \$8 for non-Members. Use the October Members' programs coupon on page 3 to register.

**Members' Walking Tour of**

**Ladies' Mile**  
Friday, October 14

One of the city's fastest-changing landmark districts, Ladies' Mile is the district of great stores and little shops where Jim Brady bought his diamonds, the Vanderbilts chose their carpets, and Lillian Russell ordered her wide-brimmed hats. The magnificent old buildings that housed turn-of-the-century emporiums are being revived as the superstores of the 1990s.

Joyce Gold, a Manhattan historian and teacher, will lead the Members' walking tour of Ladies' Mile. In addition to surveying the area's historical buildings, the tour will visit one of the chief costumed of the Broadway theater. Members can get a rare glimpse at the painstaking craftwork that goes into the creation of the stage's vibrant costumes.

The tour will take place between 10:30 a.m. and 1:30 p.m. Tickets are \$25 and available only by mail to Participating and Higher Members. The tour is appropriate for participants ages 18 and older. Use the coupon at right to register.

**Members' Day Trip to Hawk Mountain**

Saturday, October 15

Bring the binoculars and board the bus for an autumn day of birdwatching. At Pennsylvania's Hawk Mountain Sanctuary Members will see hawks, ospreys, eagles, and other migrating raptors as they head south from their breeding grounds in Canada. Naturalist Stephen C. Quinn, a Museum authority on birds, will accompany Members on the trip. Participants should bring a bag lunch and be sure to wear proper clothing and footwear.

The trip, which is appropriate for participants ages 16 and older, will take place from 7:00 a.m. to 7:00 p.m. Use the coupon below to order tickets, which are \$60 and available only to Participating and Higher Members. Please note that tickets are available only by mail.

**Sex, Love, and Religion in South India**

Friday, October 21

All of the world's religions have rules about love and sexual behavior, and often the love of God and the lower sexual impulses are opposed. Anthropologist Chantal Boulanger will discuss how Hinduism developed a method of integrating sex and God in a philosophy that accepts all loving behavior.

Practices considered deviant in other religions are accepted in the faith of South India, which allows the love of God to be interpreted in a physical manner. Boulanger will describe how the religion's myths address every form of sexual behavior, and she'll talk about the evolution of religious attitudes in the region.

The program, which is free and open to all Museum visitors, will take place at 6:30 p.m. in the Linder Theater. No tickets or reservations are necessary but seating is limited and available on a first-come, first-served basis.

**Hudson Valley Cruise**  
Sunday, October 23

A high-speed catamaran will carry Members through the historic Hudson Valley at the peak of the season's changing colors. Participants will sail the length of the Palisades and follow the river through its most spectacular scenery to West Point and Storm King Mountain and back.

Sidney Horenstein, coordi-

nator of environmental public programs at the Museum, will point out aspects of geological interest. William Schuster, forester and director of the Black Rock Forest Preserve, will talk about local plant life and the relationship of Black Rock to the rest of the Hudson Highlands.

The cruise, which is appropriate for ages 13 and older, will take place from noon to 4:00 p.m. Tickets are \$50 for Members and \$60 for non-Members. Use the coupon on this page to register, and please note that tickets are available only by mail.

**Ghost Stories**

Friday, October 28

It's the lucky thirteenth anniversary of storyteller Laura Simms' annual Halloween shows at the Museum, and this year promises to be as deliciously spooky as ever. Simms' dynamic performances of ghost and spirit tales from the visible and invisible worlds will feature her original retellings of traditional stories as well as some haunting true-life adventures.

A 6:00 p.m. show, which is geared toward children between the ages of 5 and 12, will be full of chills and giggles. Tickets are \$5 for Members and \$8 for non-Members. The adults' program, in which listeners will journey to strange and fantastic lands, will begin at 8:00 p.m. Tickets are \$8 for Members and \$12 for non-Members. Both shows will take place in the Kaufmann Theater. Use the coupon on page 3 to register.

**Members' Mask-Making Workshop for Adults**

**You're Never Too Old for Tricks or Treats**

Sunday, October 30

The children have fun with the crafts projects, June Myles observed, but their grown-up companions seem to have an even better time. June figured that the kids could spare the adults long enough for a workshop that will help make Halloween more fun for everyone.

Members can make the mask of their dreams (or nightmares) at *You're Never Too Old for Tricks or Treats*. Participants don't have to be especially crafty or skilled; they'll use everyday items rather than high-tech, theatrical materials to create marvelous masks.

The workshop will take place from 1:30 to 3:00 p.m. Tickets are \$18 and available only by mail to Participating and Higher Members ages 16 and older. Use the coupon at right to register.

**At the Naturemax Theater**

**Africa: The Serengeti and Yellowstone**



"There is a place on earth where it is still the morning of life and the great herds still run free." These words, delivered in the resonant baritone of James Earl Jones, begin and end *Africa: The Serengeti*, the story of the greatest migration of land animals anywhere on the planet. The IMAX film takes viewers on a journey in the company of more than 1.5 million animals as they travel over 500 miles across one of the most important animal sanctuaries on earth.

A thunderous chorus of hooves and the spectacle of wildebeests as far as the eye can see introduce viewers to a sight that few humans have beheld: the great migration. Accompanied by countless zebras and gazelles, the wildebeests endure drought, starvation, and the pursuit of lions, cheetahs, and crocodiles to return to their ancient calving grounds. Showtimes for *Africa: The Serengeti* are

10:30 and 11:30 a.m., 1:30 and 3:30 p.m. daily.

*Yellowstone*, an exploration of America's oldest and largest national park, offers an unusual look at the park's history, geology, and wildlife. Viewers explore Old Faithful and many of the park's volcanic wonders, and they'll observe its wildlife, which includes one of the few surviving populations of bison as well as elk, bears, moose, and beavers. *Yellowstone* is shown at 12:30, 2:30, and 4:30 p.m.

On Friday and Saturday at 6:00 and 7:30 p.m., *Africa: The Serengeti* is shown on a double bill with *Yellowstone*. Admission to Naturemax for Participating and Higher Members is \$4.75 for adults and \$2.25 for children. Prices for the double feature are \$6 for adults and \$3.25 for children. Schedules and prices are subject to change without notice. Call (212) 769-5650 for further information.

**Tours, Day Trips, and Workshops.** Use this coupon to register for the walking tour *Ladies' Mile*; the *Hudson Valley Cruise*; the day trips to *Montauk Point* and *Hawk Mountain*; and the workshops *Mask-Making for Adults* and *The Cult of the Khan*.

Name(s) of program(s): \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Number of tickets and price (please indicate which program if more than one): \_\_\_\_\_

\_\_\_\_\_

Total amount enclosed: \_\_\_\_\_

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Daytime telephone: \_\_\_\_\_

Membership category: \_\_\_\_\_

Please make check payable to the American Museum of Natural History and mail with a **self-addressed, stamped envelope** to: *Tours and Day Trips*, Membership Office, American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192.



## Young Members' Birthday Parties at the Museum

*Celebrate Your Birthday with Relatives and Friends*



**Elotherium, a prehistoric party animal**

We'll provide the relatives — extinct ones, that is. Many of these kinfolks will be strangers, and others will just be strange, and you'll do a little climbing through their family trees. At the new Lila Acheson Wallace Wing of Mammals and Their Extinct Relatives, you'll get acquainted with some prehistoric beasts like mammoths, mastodons, and saber-toothed cats and discover which of these creatures are gone forever and which have modern cousins.

You bring the friends (and the cake), and we'll play games, make a mammalian family memento, and party away for two hours. It will be a birthday that won't fade into oblivion!

The Membership Office sponsors other theme parties for Members between the ages of 5 and 10 that focus on dinosaurs, African mammals, reptiles and amphibians, ocean dwellers, and Native Americans.

The group should be no

fewer than 10 and no more than 20. The fee is \$275 plus \$15 per child and covers all materials and the services of a Museum party coordinator. The coordinator will help you plan a party that suits your child's tastes and will handle everything from candles to party favors. All you need to do is bring the cake and help escort the guests.

For more information about the birthday parties, call the Membership Office at (212) 769-5542.

## The First 125 Years

**Exhibitions open in Birds of the World and the Akeley Gallery on Friday, October 14**

A special exhibition of photographs, specimens, and memorabilia will go on display this month in the Hall of Birds of the World in commemoration of the Museum's 125th anniversary. *The First 125 Years* will offer a decade-by-decade survey of the Museum's growth and development into a cultural mecca for both New Yorkers and tourists and a world-renowned center for scientific research.

Examples from the earliest collections, acquired in the 1860s and 1870s, will be on display along with items unearthed during the Museum's first paleontological and archeological expeditions in the 1890s. The exhibition traces the Museum's expansion and focuses on some of its highlights, including early examples of mounted fossil reptiles and mammals, artifacts from Margaret Mead's South Pacific expeditions in the 1920s and 1930s, and



**Olsen, Andrews, and the dinosaur eggs in 1925**

objects from the dramatic 1950s "Men of the Mountains" exhibit, which was originally scheduled for a three-month run but proved so popular that it remained for 22 years.

The exhibition chronicles Museum-sponsored expeditions over the past century, from the turn-of-the-century Jesup Expeditions to the

Northwest Coast and Siberia to the current discoveries of fossil animals in Mongolia, where the Andrews Expeditions of the 1920s uncovered the first known dinosaur eggs.

Photographs will be on display in the Akeley Gallery exhibition *People and Places*, which will feature images taken by Museum personnel during expeditions.

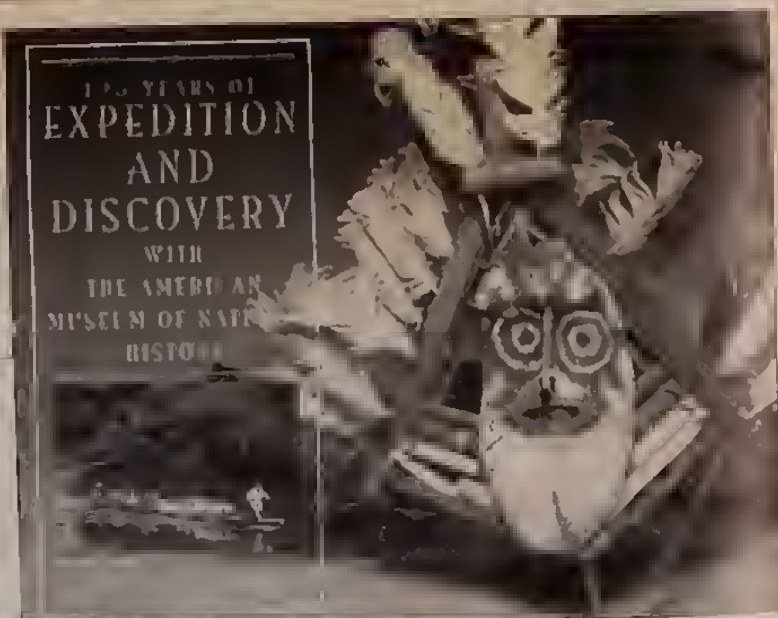
## Sacred Cities of Southeast Asia

From January 9 to February 1, the American Museum will sponsor an exciting journey to Indonesia, Vietnam, and Cambodia. Each of these countries features a combination of ancient cultures and stunning landscapes.

This cruise itinerary includes the islands of Bali and Borneo as well as Saigon, Hanoi, the lovely old imperial capital of Hue, and Phnom Penh, which retains its charm and beauty despite years of turmoil. Participants will explore complex monuments in the magnificent Khmer cities of Angkor, the temples of Borobudur, the Besakih Temple on Bali, the Marble Mountains above Da Nang in Vietnam, and many other ancient sites.

An integral part of this and every Discovery Cruise/Tour is a comprehensive and stimulating educational program consisting of illustrated lectures and informal discussions by a team of distinguished scientists and researchers. American Museum lecturers on board for this exploration of Southeast Asia include an anthropologist who specializes in the cultural traditions of East Asia and a paleontologist who conducts research on hominoids at the Institute of Archaeology in Hanoi.

The price ranges from \$7,495 to \$8,645, per person, double occupancy. For more information on all Discovery Cruises/Tours at (800) 462-8687 or in New York State at (212) 769-5700.



### Expedition Calendar

This 1995 calendar commemorates the 125th anniversary of the American Museum. Images and anecdotes from spectacular expeditions — from the Gobi Desert to the North Pole, the Congo to the South Pacific — are featured, along with colorful and exotic artifacts, origi-

nal drawings, and rare photographs. A special pull-out time line highlights the Museum's history.

The calendar measures 14½" x 10½" and costs \$10.95 each, plus \$2 shipping and handling per calendar. Use the coupon below to order.

#### Expedition Calendar

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Daytime telephone: \_\_\_\_\_

Total amount enclosed (include sales tax, if applicable): \_\_\_\_\_

Please make your check payable to the American Museum of Natural History and mail with coupon to: *AMNH Expedition Calendar*, Central Park West at 79th Street, New York, NY 10024-5192.



# Museum Notes

**Hours**  
Exhibition Halls  
Mon.-Thurs. & Sun. .... 10:00 a.m.-5:45 p.m.  
Fri. & Sat. .... 10:00 a.m.-8:45 p.m.  
The Museum Shop  
Mon.-Thurs. & Sun. .... 10:00 a.m.-5:45 p.m.  
Fri. & Sat. .... 10:00 a.m.-7:45 p.m.  
The Junior Shop  
Mon.-Fri. .... 10:00 a.m.-4:45 p.m.  
Sat. & Sun. .... 10:00 a.m.-5:45 p.m.  
The Museum Library  
Tues.-Fri. .... 11:00 a.m.-4:00 p.m.  
The Natural Science Center  
For children of all ages and their families.  
Closed on Mondays and holidays.  
Tues.-Fri. .... 2:00-4:30 p.m.  
Sat. & Sun. .... 1:00-4:30 p.m.

**Museum Dining**  
Diner Saurus Fast Service Eatery  
Daily .... 11:00 a.m.-4:45 p.m.  
Garden Cafe  
Reservations: (212) 769-5865  
Lunch: Mon.-Fri. .... 11:30 a.m.-3:30 p.m.  
Dinner: Fri. & Sat. .... 5:00-7:30 p.m.  
Brunch: Sat. & Sun. .... 11:00 a.m.-4:00 p.m.  
Whale's Lair  
Fri. .... 3:00-8:00 p.m.  
Sat. .... Noon-8:00 p.m.  
Sun. & most holidays .... Noon-5:00 p.m.  
Snack Carts (at 77th Street & on the first floor of the Roosevelt Memorial Hall)  
Sat. & Sun. .... 11:00 a.m.-4:00 p.m.

**Entrances**  
During Museum hours visitors can enter the building through the 77th Street entrance, the parking lot entrance (81st Street), or the Roosevelt Memorial Hall entrance (79th Street and Central Park West). **Visitors attending programs after hours can enter the building through the driveway entrance at 79th Street and Central Park West.**

**Museum Tours**  
Free Museum Highlights Tours are available to individuals and families. Tours are conducted daily at 10:15 and 11:15 a.m., 1:15, 2:15, and 3:15 p.m. and depart from the second floor between the Roosevelt Rotunda and the Hall of African Mammals.  
Group Tours are available for a fee. All Group Tours must be scheduled through the Volunteer Office. For details, call (212) 769-SS66.

# Parking News

The Museum is attempting to improve use of its limited parking lot. Beginning October 1 the Museum's parking lot will offer expanded hours and revised rates. The parking lot, which is operated in conjunction with the Edison Hayden Corporation, will be open every day from 7:00 a.m. till 11:30 p.m.  
Rates for cars entering between 7:00 a.m. and 5:00 p.m. start at \$5 for up to a half-hour and advance by stages to a closing-time maximum of \$17. Cars entering between 5:00 p.m. and 11:30 p.m. will be charged a minimum of \$5 and a maximum of \$7 on Monday through Thursday and a maximum of \$12 on Friday, Saturday, and Sunday.  
Busses will be charged \$11 and will not be admitted on weekends.  
The parking lot has a capacity of 100 vehicles and is operated on a first-come, first-served basis. Hertz Manhattan, located one block away from the Museum at 210 West 77th Street (between Broadway and Amsterdam), offers parking discounts to Members: on Monday through Friday, Members receive a \$2 discount off regular prices and on Saturday and Sunday they receive a \$3 discount.  
Call the Membership Office at (212) 769-5606 for information about alternative parking.

# Happenings at the Hayden

## Sky Shows

**Update: The Universe**  
New discoveries from space are revealed on a daily basis, including information about black holes, new planets, and colliding galaxies. In this fast-paced, "news magazine" presentation, you'll get an astronomy update and look through the new windows that astronomers have opened with the latest technology.  
In the past three years space telescopes such as the Compton Gamma Ray Observatory, the European ROSAT, and the recently overhauled Hubble Space Telescope have been exploring the universe from space. At the same time, giant earth-bound telescopes scan the heavens, searching for signs of intelligent life in our galaxy. *Update: The Universe* explores cutting-edge research from the quest for extraterrestrial life to studies that peel back time in search of the dawn of creation.  
**Note:** There will be no Sky Show until October 3, due to theater renovations. Please call (212) 769-S100 to verify schedule.  
**Showtimes:**  
Mon.-Fri. .... 1:30 and 3:30 p.m.  
Sat. .... 11:00 a.m. (except for Oct. 8 and Nov. 5).  
1:00, 2:00, 3:00, 4:00, and 5:00 p.m.  
Sun. .... 1:00, 2:00, 3:00, 4:00, and 5:00 p.m.  
Admission (Participating and Higher Members):  
Adults: \$4  
Children (2-12): \$2  
Call (212) 769-S100 for non-Members' prices and additional information. Please note that prices and schedule are subject to change without prior notice.

**Children's Shows**  
Wonderful Sky is a special Sky Show for preschoolers. Children sing along with images of their favorite Sesame Street Muppets as they learn about rainbows, the phases of the moon, sunsets, and stars. Sat., Oct. 8, at 10:30 and 11:45 a.m.,

and Sat., Nov. 5, at 10:30 a.m. Admission for Participating and Higher Members is \$4 for adults and \$2 for children. Members can purchase up to four tickets at the Members' price.  
Shows usually sell out in advance; reservations, by mail only, are necessary. Make your check payable to the Hayden Planetarium (attn: Wonderful Sky, Central Park West at 81st Street, New York, NY 10024-5192), indicate membership category and a first and second choice of showtimes. Be sure to include a self-addressed, stamped envelope and your daytime telephone number. For additional information call (212) 769-5900.  
*Robots in Space* features Lucasfilm's R2D2 and C-3PO and has been created especially for children ages 7 to 12. Together with a live host, these famous space robots take children on a tour of the universe. See how satellites and probes — the real space robots — help us learn about worlds near and far. Journey from the earth to other planets and distant black holes. Sat., Nov. 5, at 11:45 a.m. Admission for Participating and Higher Members is \$4 for adults and \$2 for children. For additional information, call (212) 769-5900.

## Laser Shows

Journey into another dimension where laser visuals and rock music combine to create a dazzling 3-D experience of sight and sound. Shows are presented on Fridays and Saturdays at 7:00, 8:30, and 10:00 p.m. For prices and show schedule, telephone (212) 769-5100.  
**It's always a good idea to call before visiting the Planetarium, since prices, programs, and showtimes are subject to change without notice. For general Planetarium information, call (212) 769-5100.**

# Celebrate

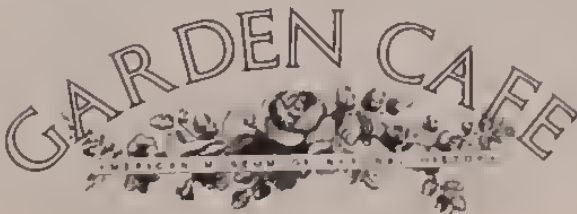
## The Royal Tombs of Sipan

With Peruvian Specialities at the Garden Cafe

Lunch, Mon. - Fri: 11:30 - 3:30

Weekend Brunch, Sat. - Sun: 11 - 4  
Dinner, Fri. - Sat: 5 - 7:30

Reservations suggested  
Call the Garden Cafe at 212-769-5865  
Located on the Lower Level



## Eco Impact Forum

On Thursday, October 27, at 6:30 p.m., lecturer David Berg presents *Protecting and Managing New York City's Natural Areas*. Berg is president of the New York City Audubon Society.  
This free program is part of an ongoing series of lectures that focus on environmental issues of concern to the greater metropolitan area. No tickets or reservations are necessary for the one-hour lecture, which will take place in the Linder Theater. For additional information call (212) 769-S750



Sun

Mon

Tue

Wed

Thu

Fri

Sat

# October 1994 American Museum of Natural History



crow

2

3

**5:30 p.m.** Amateur Astronomers Association. Linder Theater. Free.

**6:00 p.m.** Okavango: Africa's Last Eden. Members' evening program. Main Auditorium. \$10 for Members, \$15 for non-Members. Page 1.

7



WATTLE CROW

**9:00 p.m.** NY Shell Club. Room 319. Free.

**10** Columbus Day observed. The Museum is open.

**11:00 p.m.** Jennie. Members' evening program. Kaufmann Theater. \$5 for Members, \$8 for non-Members. Page 5.

**7:30 p.m.** Linnaean Society. Speaker, Claudia Wilds, an authority on shorebirds: "Farewell to Midway" Edith C. Blum Lecture Room. Free.

**12** Columbus Day. The Museum is open. **5:30 p.m.** NY Mineralogical Club. Room 319. Free. **6:30-10:30 p.m.** 1994 Margaret Mead Film and Video Festival. Page 4.

**13:30-10:30 p.m.** 1994 Margaret Mead Film and Video Festival. Page 4.

**14:10:30 a.m.-1:30 p.m.** Members' Walking Tour of Ladies' Mile. \$25 and open only to Participating and Higher Members. Page 5. **6:00-8:30 p.m.** 1994 Margaret Mead Film and Video Festival. Page 4.

The exhibitions *People and Places* and *The First 125 Years* open. Page 6.

**15:00 a.m.-7:00 p.m.** Members' Day Trip to Hawk Mountain. \$60 and open only to Participating and Higher Members. Tickets required. Page 5. **11:00 a.m.-8:30 p.m.** 1994 Margaret Mead Film and Video Festival. Page 4.

**16:11:00 a.m.-5:30 p.m.** 1994 Margaret Mead Film and Video Festival. Page 4. **2:00 p.m.** NY Paleontological Society. Room 319. Free.

**17:6:30-10:30 p.m.** 1994 Margaret Mead Film and Video Festival. Page 4.

**18:6:30-10:30 p.m.** 1994 Margaret Mead Film and Video Festival. Page 4.

**19:6:00-8:00 p.m.** The Family Party. Tickets required. For further information call (212) 769-5166.

**20:7:00 p.m.** NY Entomological Society. Room 319. Free.

**21:6:30 p.m.** Sex, Love, and Religion in South India. Evening lecture. Linder Theater. Free, and open to all Museum visitors. Page 5.

## The Tell Tale Tour: A Night of Edgar Allan Poe

Do you dare hear mysterious tales in the evening at the Museum in our dimly lit halls? Do you dare to feel the wind suddenly chill you to the bone when there is no wind? Those who delight in sharing such tales can quench their thirst with a night of Edgar Allan Poe.

These special Highlights Tours will take place on two Fridays, October 21 and 28, at 6:30 p.m. The tours are free but reservations are required; please call (212) 769-5566. Tours are limited to 30 people and will meet in the second-floor Room near the information desk. The tour guide is Robert Campanile.

**23:Noon-4:00 p.m.** Hudson Valley Cruise. \$50 for Members, \$60 for non-Members. Page 5.

24

**25:7:30 p.m.** Linnaean Society. Winter birds: An advanced identification workshop. Linder Theater. Free.

**30:1:30-3:00 p.m.** You're Never Too Old for Tricks or Treats. Members' mask-making workshop for adults. \$18, and open only to Participating and Higher Members. Tickets required. Page 5.

31 Halloween.



Cornish crow

**27:6:30 p.m.** Eco Impact Forum. Speaker, David Berg, president of the NYC Audubon Society. "Protecting and Managing NYC's Natural Areas." Linder Theater. Free. Page 7. **7:30 p.m.** NY Microscopical Society. Room 319. Free.

**28:6:00 and 8:00 p.m.** Ghost Stories. Members' Halloween programs. Kaufmann Theater. Tickets for the 6:00 p.m. children's show are \$5 for Members and \$8 for non-Members. Tickets for the 8:00 p.m. adults' show are \$8 for Members and \$12 for non-Members. Page 5.



# ROTUNDA

For Participating and Higher Members of the American Museum of Natural History

Vol. 19, No. 10 November 1994



*Samaritan community during a pilgrimage on Mt. Gerizim (above and below)*



All photos by Johanna Spector



*High Priest Amram and his brother, Priest Zedaqa, adviser to King Hussein of Jordan on Samaritan matters*

*A tiny nation survives 2,500 years and prospers*

## The Samaritans: People of the Sacred Mountain

Thursday, November 17

7:00 p.m.

Main Auditorium

\$7 for Members, \$10 for non-Members

The rituals and lifestyles of a Middle Eastern population that separated from the Jewish mainstream more than 2,500 years ago are the focus of the documentary *The Samaritans: People of the Sacred Mountain*. Filmmaker Johanna Spector will introduce the documentary by discussing the history and culture of this little-known people and the extensive research undertaken in the film's production.

Considering themselves ancient Hebrews rather than Jews, the

Samaritans derive their customs and ceremonies from the Samaritan Pentateuch, which differs slightly from the Hebrew Five Books of Moses. Their observances are not influenced by Judaic interpretations based on rabbinical writings and offer a fascinating contrast to those of modern Judaism. Since the Samaritans observe the Sabbath, High Holidays, and festivals (Pesach, Shavuot, Succot) much as they were observed 2,000 years ago

The film is a remarkable ethnographic record of a little-known peo-

ple who once numbered in the hundreds of thousands and lived throughout the Levant and Egypt. Today they still dwell in two enclaves — in Holon, Israel, and in Nablus, on the West Bank of the Jordan. At the turn of the century their population was 135; in 1968–70, at the time of filming, there were fewer than 450 individuals; today there are 550.

Johanna Spector, who is a music ethnologist, has studied the Samaritans for several decades and sound-recorded their entire liturgy and

music. Her collection is housed at the Hebrew University's Fonoteka in Jerusalem. She will offer an in-depth introduction of the film that will last about 45 minutes, and after screening the 30-minute film Spector will answer questions from the audience for half an hour.

This program is the first in a series of Spector's films, other documentaries, which will be shown in 1995, will profile Jews of India and Yemen.

Use the November Members' programs coupon on page 3 to register.





Stane dragon head, a Gallery 77 exhibit

#### Members' Tours

### Empires Beyond the Great Wall

Friday, November 4

**SOLD OUT from previous issue**

Members can take guided tours of the current Gallery 77 exhibition, *Empires Beyond the Great Wall: The Heritage of Genghis Khan*. Gold and silver plates and vessels, bronze weapons, silk garments, pottery, porcelain, and funerary ware are among the treasures on display in the exhibition. These priceless artifacts, none of which has

ever been exhibited in the West, are from the collections of seven museums of China's Inner Mongolia Autonomous Region.

The tours, which are free and open only to Participating and Higher Members ages 13 and older, will be led by Highlights Tour guides. Tour times are at 6:00, 6:30, 7:00, and 7:30 p.m.

### Chemistry for Kids

Saturday, November 5

Young Members between the ages of 5 and 12 will observe some fabulous chemical transformations in the Kaufmann Theater, and then

they'll conduct safe, easy-to-understand experiments of their own under adult supervision.

Patricia Redden returns to the Museum this month for the ninth annual presentation of *Chemistry for Kids*. Presented in conjunction with the American Chemical Society's observation of National Chemistry Week, it is especially designed to excite

young imaginations with the possibilities offered by the study of science.

Showtimes are 11:00 a.m. and 1:00 and 3:00 p.m. Tickets are \$7 for Members and \$10 for non-Members. Use the November Members' programs coupon on page 3 to register, and please note that all attendees, adults and children alike, must have tickets.

#### Members' Day Trip to

### Montauk Point

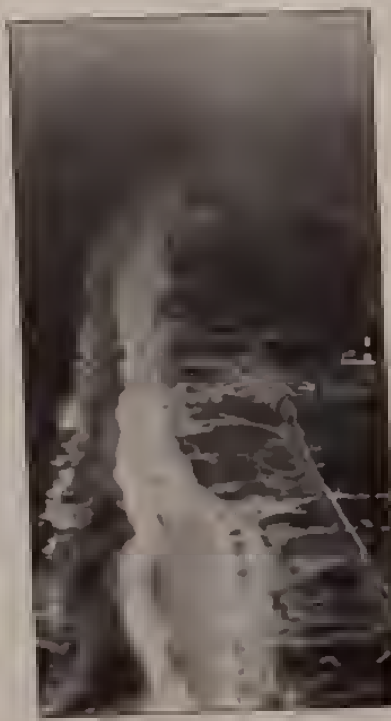
Saturday, November 19

Geologist Sidney Horenstein will accompany Members to the very end of Long Island, where they'll survey evidence of the topographic changes the area has undergone in the 17,000 years since the Ice Age. Participants will walk on coastal sand dunes among steep, wave-cut bluffs that rise 30 to 80 feet above the beaches. They'll take a look at Montauk Lighthouse, which was

built in the late eighteenth century, and stop at the Shinnecock Canal to see how it helps control the local coastal ecology.

Horenstein, the Museum's coordinator of environmental public programs, will lead the trip rain or shine. Wear shoes appropriate for walking on sandy and rocky beaches, and bring a bag lunch and beverages. Transportation is by bus, departing from and returning to the Museum.

The trip will take place from 7:30 a.m. to 7:30 p.m. Tickets are \$60 and available only to Participating and Higher Members ages 16 and older. Use the coupon on page 5 to register, and please note that tickets are available only by mail.



LI beach erasium



Campaigning with the Khan

### The Cult of the Khan

Tuesday, November 22

Historian Morris Rossabi will talk with Members about the enigmatic character of Genghis Khan — the environment from which he arose, the causes for his and the Mongols' sudden eruption from the steppelands, and the reasons for the swift and astonishing formation of the largest land empire in history.

Rossabi will also discuss Khan's role in modern-day Mongolia, where a cult of Genghis fuels nationalism.

This program, which is appropriate for ages 16 and older, is presented in conjunction with the current Gallery 77 exhibition *Empires Beyond the Great Wall: The Heritage of Genghis Khan*. It will take place from 7:00 to 9:00 p.m. Tickets are \$20 and available only by mail to Participating and Higher Members. Use the coupon on page 5 to register.

### Female Genital Mutilation

Wednesday, November 30

The practice of female genital mutilation (FGM) and its cultural significance are the focus of a program presented by physician Nahid Toubia. She'll describe the practice of FGM as a coming-of-age ritual and its cultural significance in relation to ideals of health and beauty, religion

and morality, and male approval and protection.

Nahid Toubia, a women's health activist from Sudan, will discuss the complications and effects of FGM, which is mainly performed on children, along with international efforts to stop the practice that attempt to change attitudes without threatening cultural integrity.

The program will take place at 7:00 p.m. in the Main Auditorium. Tickets are \$7 for Members and \$10 for non-Members. Use the November Members' programs coupon on page 3 to register.

## ROTUNDA

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November 1994

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Robert Jahn — Program Coordinator

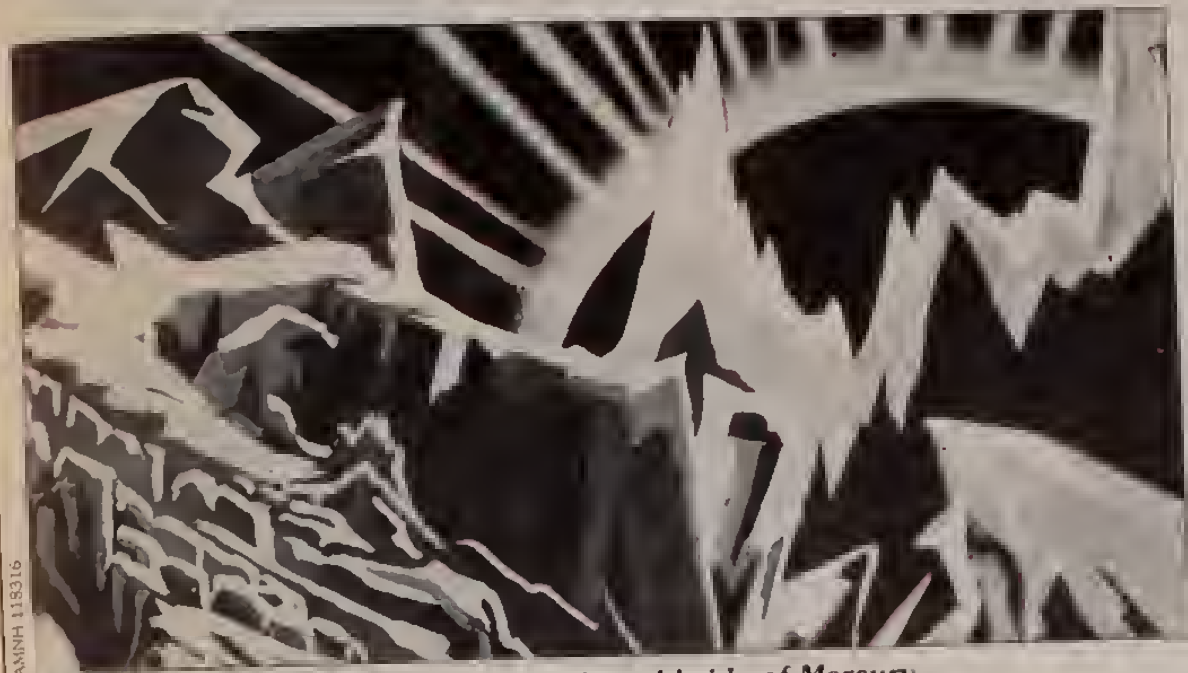
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# Geology of the Planets

Thursdays, December 8 and 15  
7:00 p.m.  
Kaufmann Theater  
\$15 for Members, \$20 for non-Members



AMNH 115316

1934 drawing of the cold side of Mercury

A new chapter in the science of planetology began on August 27, 1962, when the *Mariner II* space probe was launched to explore Venus. An enormous amount of information has been amassed since then and our knowledge of the solar system has been greatly expanded. Geologist Sidney Horenstein, the Museum's coordinator of environmental public programs, will present a two-part

series of lectures that uses slides and videos to take Members on a tour of the planets and their salient geological features. The lectures will start with the earth and moon, illustrating some basic geological concepts and setting the stage for the exploration of the rest of the solar system. Horenstein will explain why the moon has no atmosphere or folded mountains and why

Mars has huge shield volcanoes and an immense canyon. He'll take a look at Venus and its atmosphere, which creates a greenhouse effect, the cratered surface of Mercury, and the differences between the moons of Jupiter, including the origin of Io's sulfur lava flows. Use the November Members' programs coupon on this page to register for the lectures.

# Eyes of the World

Wednesday, November 9  
7:00 p.m.  
Kaufmann Theater  
\$7 for Members, \$10 for non-Members

Members can see one of the world's rarest gemstones, the "Mona Lisa," an 18.50-carat alexandrite cat's-eye. The jewel was christened by the miner who discovered it, Henry F. Kennedy, who observed that its mesmerizing "eye" follows the viewer. At the Members' program *Eyes of the World* Kennedy will display the phenomenal gem, which is bluish green under fluorescent lighting, green in sunlight, pink under incandescent light, and red in candlelight. Alexandrite's

dramatic color changes are due to the trace element chromium, which causes the emerald to appear green and the ruby red. During the last three decades, the Brazilian interior has been honeycombed by as many as 100,000 garimpeiros (prospectors) searching for this chromium-laced gem. First unearthed in 1830, alexandrite was found in the Ural Mountains and named in honor of Czar Alexander II. Alexandrite with a cat's-eye effect was unknown for many

years, and even today the jewel is so rare and expensive that most major museums don't have a specimen. Kennedy will discuss how the jewel was found and fashioned, describing techniques and tricks used by cutters to illuminate the splendor within the rough gem. He'll exhibit the "Viana," voted Stone of the Year in 1988 by the cat's-eye cutters. Mined by Kennedy at Brazil's Barro Preto, this flawless jewel sports a sharp, well-centered eye on a honey-colored body. Members will also hear about the lives of garimpeiros and the critical issues they face, which include environmental destruction and climate change. A New Jersey native and self-described "professor by education," Kennedy survived a 1973 shipwreck off Tubarao (Shark City) on the southern Brazilian coast. He was captured by the beauty of the country and its people and has spent the past 20 years in Brazil, writing, consulting, and lecturing in the fields of prospecting, mining, and marketing gemstones. Use the November Members' programs coupon on this page to register.



Henry F. Kennedy

A crew of garimpeiros dislodges a large boulder that covers a cache of gems. Hand tools are commonly used, and it took six weeks to remove this rock.

# November Members' Programs Coupon

Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
Daytime telephone: \_\_\_\_\_  
Membership category: \_\_\_\_\_  
Total amount enclosed: \_\_\_\_\_

Please make check (if applicable) payable to the American Museum of Natural History and mail with a self-addressed, stamped envelope to: November Members' Programs, Membership Office, American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192. Telephone reservations are not accepted. No refunds or exchanges.

Unless otherwise indicated, no more than eight tickets may be ordered for a program. Participating Members are entitled to four tickets per program at the Members' price. Higher Members are entitled to six tickets, and Associate Members are entitled to one ticket.

**Chemistry for Kids.** Saturday, November 5.  
Please indicate a first and second choice of times.  
\_\_\_\_ 11:00 a.m. \_\_\_\_ 1:00 p.m. \_\_\_\_ 3:00 p.m.  
Number of Members' tickets at \$7: \_\_\_\_  
Number of additional tickets at \$10: \_\_\_\_  
Total amount enclosed for program: \_\_\_\_

**Eyes of the World.** Wednesday, November 9, 7:00 p.m.  
Number of Members' tickets at \$7: \_\_\_\_  
Number of additional tickets at \$10: \_\_\_\_  
Total amount enclosed for program: \_\_\_\_

**The Samaritans: People of the Sacred Mountain**  
Thursday, November 17, 7:00 p.m.  
Number of Members' tickets at \$7: \_\_\_\_  
Number of additional tickets at \$10: \_\_\_\_  
Total amount enclosed for program: \_\_\_\_

**Female Genital Mutilation.** Wednesday, November 30, 7:00 p.m.  
Number of Members' tickets at \$7: \_\_\_\_  
Number of additional tickets at \$10: \_\_\_\_  
Total amount enclosed for program: \_\_\_\_

**Geology of the Planets.** Thursdays, December 8 and 15, 7:00 p.m.  
Number of Members' tickets at \$15: \_\_\_\_  
Number of additional tickets at \$20: \_\_\_\_  
Total amount enclosed for program: \_\_\_\_

**Origami Holiday Workshops.** Sunday, December 11.  
Please indicate workshop level and a first, second, and third choice of times.  
\_\_\_\_ Young Children's Workshop  
\_\_\_\_ Beginners' Workshop  
\_\_\_\_ Intermediate Workshop  
\_\_\_\_ 10:30 a.m. \_\_\_\_ 11:30 a.m.  
\_\_\_\_ 2:00 p.m. \_\_\_\_ 3:00 p.m.  
Number of Members' tickets at \$3: \_\_\_\_  
Total amount enclosed for program: \_\_\_\_

**Members' private viewing at the Naturemax Theater**  
Wednesday, December 21, 7:00 p.m.  
Number of Members' tickets at \$6: \_\_\_\_  
Total amount enclosed for program: \_\_\_\_

**Toyland Express.** Thursday, December 29.  
Please indicate a first and second choice.  
\_\_\_\_ 1:00 p.m. \_\_\_\_ 3:00 p.m.  
Number of Members' tickets at \$7: \_\_\_\_  
Number of additional tickets at \$10: \_\_\_\_  
Total amount enclosed for program: \_\_\_\_

NOTE: Orders received less than ten days before show dates will be held for pick-up at the door on the day of the program if tickets are still available. If an event is sold out, you will be advised in writing or by phone and your check will be returned.



## Toyland Express

Thursday, December 29

1:00 and 3:00 p.m.

Kaufmann Theater

\$7 for Members, \$10 for non-Members

Ages 4-8



photo courtesy of Bob Brown

A trainload of enchanting toys from the past, present, and future are headed this way aboard the *Toyland Express*. At this performance by the Bob Brown Puppets young Members will see whimsical marionettes stage an ever-changing musical revue.

The production features a variety of musical styles, including a choo-choo that does the cha-cha to the pop song "Locomotion." Traditional toys — including a juggling teddy bear, a mechanical wind-up bird, a wooden soldier on horseback, and a jack-in-the-box — will per-

form along with futuristic toys like a transformer robot and a space alien that's patterned after Buckminster Fuller's geodesic dome.

Based in the Washington, DC, area since 1968, the Bob Brown Puppets are well known locally for their many appearances at the White House, the Kennedy Center, the National Theatre, Wolf Trap Farm Park, and hundreds of area schools and community centers. They have also established a national reputation through their performances at Lincoln Center, the Brooklyn Academy of Music, and the Detroit Institute of Arts. Young people everywhere recognize Bob Brown's artistry from his many guest appearances on *Mister Rogers' Neighborhood*, *Mulligan Stew*, and *The Wordshop*.

Use the November Members' program coupon on page 3 to register.

### Members' Adult-Child Workshops

## Wauja Sharing Rituals

Saturday, December 3

11:00 a.m.-noon (ages 4-8)

1:30-3:00 p.m. (ages 9-12)

\$16 per couple for Members, \$20 per couple for non-Members



Apple

This drawing of a snake features some of the distinctive patterns Wauja often use in their art

Everyone's a winner at the *Wauja Sharing Rituals*, a Members' family workshop at which kids play a trading game based on an Amazonian Indian tradition.

The Wauja (pronounced WOW-sha) of Brazil dwell on a tributary of the Amazon River. They're one of the region's several tribes whose languages belong to different families but whose customs are very much the same. The friendly relations among the tribes are strengthened by a trading system in which each tribe barter for another's specialty — goods that in-

clude bows, ornaments, baskets, and pottery.

At the workshops, participants will sit in a circle to replicate the ritual by which people offer their surplus goods to their neighbors. Instead of an onerous system of taxation the Wauja have developed a system of redistributing wealth into a celebration of each other's generosity. The workshop participants will see how a material loss can be viewed as a psychological gain. Each child will be given two each of a variety of items (mostly miniatures of Amazonian

animals) — one to keep and one to barter. As they trade and bargain for rubber lizards, parrots, and coat-imundis, the children experience the fun of sharing. The program for older children will feature a slide show on the theme of a day in the life of a Wauja boy.

The workshops will be presented by anthropologist Emilienne Ireland, who has resided for nearly two years among the Wauja.

Use the coupon on page 5 to register for the program, and please note that tickets are available only by mail.

## Origami Holiday Workshops

Sunday, December 11

10:30 and 11:30 a.m., 2:00 and 3:00 p.m.

\$3 materials fee per person, and open only to Participating and Higher Members



AMNH

Families can experience the centuries-old charm and satisfaction of paperfolding at the sixteenth annual *Origami Holiday Workshops*, where they'll learn to make animals, stars, and other delightful figures.

*Young Children's Workshop* (ages 4-6). Youngsters will fold a few models from the following possibilities: butterflies, swans, jumping frogs, candy canes, purses, boxes, or sailboats. Children must be accompanied by an adult.

*Beginners' Workshop* (ages 6 and older). Participants will fold one or more of the following selections: a blow-up bunny, a panda, a whale, a butterfly, a frog pup-

pet, a penguin, or a crystal.

*Intermediate Workshop* (ages 7 and older). Participants in this workshop should be comfortable with origami folds such as mountains and valleys, rabbit ears, inside-reverse, and squash folds. They'll learn at least one of the following models: a dove, a dinosaur, a star, a strawberry, or a seal.

All workshops are taught by Museum volunteers and members of Origami USA. At the conclusion of the workshops, Members will receive origami paper and instructions to take home.

Use the coupon on page 5 to register, and please note that tickets are available only by mail.

### Members' Adult-Child Workshop

## Make a Holiday Gingerbread House

Saturday, December 17, and Sunday, December 18

10:30 a.m.-noon and 1:30-3:00 p.m.

\$30 per couple, and open only to Participating and Higher Members  
Ages 5-10

Make your dream house a reality at the Members' annual gingerbread-house-making workshop. You and your child will use jelly beans, candy canes, gumdrops, and other colorful candies to form the bricks, shingles, doors, and windows of gingerbread houses and apartments.

June Myles will show participants how to stick-build

the no-bake houses. Then parents and kids can let their imaginations run wild amid the sweets while they decorate their domiciles.

This family workshop is an annual tradition to which Members often return to build this year's model. Use the coupon on page 5 to register, and please note that tickets are available only by mail.



Members' Guided Tour  
at the Metropolitan Museum of Art

## Precolumbian Gold

Tuesday, December 6  
1:00, 3:00, and 4:00 p.m.  
\$18, and open only to Participating  
and Higher Members  
Ages 18 and up

At around 1500 BC a young man in Andean South America was laid to rest with tiny bits of gold foil placed in his hands and mouth. This modest postmortem tribute is the earliest evidence of gold-working technology in the ancient Americas, and during the next 3,000 years the custom of interring gold objects alongside the honored dead became an increasingly refined practice.

Members can take a guided tour of the Metropolitan Museum of Art's Jan Mitchell Treasury for Precolumbian works of art in gold, which comprises items from all the goldworking areas of the ancient Americas. The 250 works on display cover a wide range of periods, styles, and regions, and the collection traces the development of metalworking technology. The artifacts come from all the goldworking areas of the Americas, from Peru in the

south — where the first gold is thought to have been worked — to Mexico in the north, the last region in the hemisphere to take up metalworking in the Precolumbian era. They range in date from the last centuries of the first millennium BC until the time of the Spanish conquest in the early sixteenth century.

Exhibits include a dazzling display of personal ornaments for the head, face, and chest along with funerary offerings such as masks, effigy vessels, bowls, and ritual knives. The artifacts represent a variety of metalworking techniques, including hammering, alloying, annealing, gilding, and casting.

Before and after the 45-minute tours Members are free to explore the Museum until closing time at 5:15 p.m. Use the coupon below to register for the tours, and please note that tickets are available only by mail.

Members' Private Viewing at the Naturemax Theater

## Africa: The Serengeti and Yellowstone

Wednesday,  
December 21  
7:00 p.m.  
\$6, and open only to  
Participating  
and Higher Members

Members' night at the Naturemax Theater — a double-feature showing of *Africa: The Serengeti* and *Yellowstone* — will take viewers on an IMAX safari across the plains of East Africa and inside the world's most famous geyser.

Every year more than a million wildebeests undertake the great migration across the Serengeti in search of water, greener pastures, and their ancient calving grounds. They travel from 500 to 800 miles in the course of this eight-month odyssey. The great migration has been perfected and balanced over millennia; dozens of species have adapted over time and depend on the migration as a crucial element of their thriving, self-sustaining ecosystem.

The wildebeests are preceded by 200,000 zebras, which crop the coarse grasses, making them more palatable for wildebeests. The wildebeests are followed by half a million gazelles, which feed on the even more closely trimmed grass. Along the journey the migrating animals are stalked by numerous predators: Lions, cheetahs,



Wildebeests travel the crocodile-infested Mora River

wild dogs, hyenas, and other animals depend on the herbivores for a constant food supply. The predators help maintain a natural balance by culling the weaker or slower animals. *Africa: The Serengeti* is 40 minutes long and narrated by James Earl Jones.

America's oldest and largest national park is explored in *Yellowstone*, a spectacular journey with highlights ranging from sunrise over the Grand Tetons to a river trip to the brink of the Grand Canyon's lower falls.

The 2.2 million-acre national park, which was created in 1872, covers an area

larger than Rhode Island and Delaware combined. The earth's crust, which is normally 30 to 40 miles thick, is only three to four miles thick in the Yellowstone area and is cracked from stretching. The region undergoes constant geological change, and the film examines the park's volcanic wonders, including never-before-seen footage of the inside of Old Faithful. *Yellowstone* also looks at the park's history and its beavers, bears, elk, and other wild denizens. The film is 32 minutes long.

Use the November Members' programs coupon on page 3 to register.

**Tours, Day Trips, and Workshops.** Use this coupon to register for the guided tour *Precolumbian Gold* (indicate a first and second choice of times); the day trip to *Montauk Point*; and the workshops *The Cult of the Khan*, *Make a Holiday Gingerbread House* (please state which day and a first and second choice of times), and *Wauja Sharing Rituals* (be sure to indicate 11:00 a.m. for ages 4-8 or 1:30 p.m. for ages 9-12).

Name(s) of program(s): \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Number of tickets and price (please indicate which program if more than one): \_\_\_\_\_

Total amount enclosed: \_\_\_\_\_

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Daytime telephone: \_\_\_\_\_

Membership category: \_\_\_\_\_

Please make check payable to the American Museum of Natural History and mail with a **self-addressed, stamped envelope** to: *Tours and Workshops*, Membership Office, American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192.

## Members' Birthday Parties at the Museum

### Celebrate Your Birthday with Relatives and Friends

We'll provide the relatives — extinct ones, that is. Many of these kinfolks will be strangers, and others will just be strange, and you'll do a little climbing through their family trees. At the new Lila Acheson Wallace Wing of Mammals and Their Extinct Relatives, you'll get acquainted with some prehistoric beasts like mammoths, mastodons, and saber-toothed cats and discover which of these creatures are gone for-

ever and which have modern cousins.

You bring the friends (and the cake), and we'll play games, make a mammalian family memento, and party away for two hours.

The Membership Office sponsors other theme parties for Members between the ages of 5 and 10 that focus on dinosaurs, African mammals, reptiles and amphibians, ocean dwellers, and Native Americans.

The group should be no fewer than 10 and no more than 20. The fee is \$275 plus \$15 per child and covers all materials and the services of a Museum party coordinator. The coordinator will help you plan a party that suits your child's tastes and will handle everything from candles to party favors. All you need to do is bring the cake and help escort the guests.

For more information, call (212) 769-5542.

## Voices in Movement

Saturday, November 19  
2:00 and 4:00 p.m.  
Kaufmann Theater  
Free

The modern dance troupe *Voices in Movement* will perform selections from several different satirical works, including "A Tale and Two Chairs" and "Memory Gland." Featured performer Laura Staton possesses a unique style that combines theatrics, physicality, and a

Chaplinesque sense of humor. Like silent film, modern dance is a visually expressive art form that consists of distinctive elements such as space, time, rhythm, and gesture. This performance promises to heighten the audience's awareness of movement and other facets

of nonverbal communication.

The program will be signed as well as spoken and is suitable for family audiences. No tickets and no reservations are necessary for this free program, but seating is limited and on a first-come, first-served basis. For additional information call (212) 769-5186.



## The First 125 Years

Three new exhibitions offer fascinating looks into the Museum's 125 years of exploration and discovery.

The First 125 Years, in the Hall of Birds of the World, is a decade-by-decade survey of the Museum's growth with photographs, specimens, and memorabilia.

People and Places, in the Akeley Gallery, is a display of photographs from around the world taken during Museum expeditions.

The World Explored: 125 Years of Collecting Photographs, in the Library Gallery, features highlights from the Museum's extensive collections of photographs and films.



Turn-of-the-century Yakut shaman in ceremonial dress, AMNH 1833

Friends of Fishes presents

## Striped Bass: Tag and Release

On Friday, November 25, at 8:30 a.m., participants will board the *Pastime Princess* for Friends of Fishes' third annual striped bass tag-and-release program. The vessel, captained by George Richford, will depart from pier 11 at the South Street Seaport.

Participants in last year's trip — who were assisted by John Waldman of the Hudson River Foundation, Tom Lake of Friends of Fishes, baykeeper Andy Wilner, and Captain Joe Shastay — tagged and released 65 striped bass.

Tickets for the trip are \$100 per person, and enrollment is limited to 30. Food and beverages are included in the ticket price, and all proceeds go to the Department of Ichthyology for basic fish research.

Use the coupon at right to register and call (212) 289-3605 or fax (212) 360-6625 for further information.

**Friends of Fishes Registration Form.** Tag and Release. Friday, November 25.

Number of tickets at \$100: \_\_\_\_\_

Total amount enclosed: \_\_\_\_\_

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Daytime telephone: \_\_\_\_\_

Membership category: \_\_\_\_\_

Please make check payable to Friends of Fishes/AMNH and mail with a **self-addressed, stamped envelope** to: Friends of Fishes, Dept. of Ichthyology, AMNH, 79th Street and Central Park West, New York, NY 10024-5192.

## Natural History Expedition to New Zealand

Discovery Tours has planned a new itinerary for late winter, from February 22 to March 8, that uses a combination of land, sea, and air transport to explore the late-summer beauty of New Zealand.

Few countries of comparable size offer the variety of New Zealand's stunning natural beauty: lush rain forests, snow-capped peaks and spectacular alpine areas, dramatic fjords, verdant pastures, and mineral-rich thermal regions that are fueled by fires deep in the earth. Because of its long isolation from other land masses, New Zealand has a unique natural heritage; this heritage has been fostered by a long history of conservation and protection of indigenous species and wilderness areas.

The itinerary includes a cruise aboard the research vessel *Professor Shokalski* to explore the fjords and wilder-

ness of the South Island. On the North Island, where the Maori people first landed after sailing from Polynesia, discover their rich culture and tradition of oral history.

An integral part of this and every Discovery Cruise/Tour is a comprehensive and stimulating educational program that consists of illustrated lectures and informal discussions by a team of distinguished scientists and researchers. American Museum lecturers, naturalists, and guides on this expedition include a paleontologist/geologist, a biogeographer, a historian/conservationist, and a wildlife specialist.

The price is \$6,990–\$7,990 (per person, double occupancy). For more information call Discovery Cruises/Tours at (800) 462-8687 or in New York State at (212) 769-5700, Monday through Friday, 9:00 a.m. to 5:00 p.m.

## Eco Impact Forum

On Tuesday, November 29, at 6:30 p.m., lecturer Mark Priest presents *Environmental Impacts on Recreational Fishing*. Priest is president of the New York City chapter of Trout Unlimited, Inc.

This free program is part of an ongoing series of lectures

that focus on environmental issues of concern to the greater metropolitan area. No tickets or reservations are necessary for the one-hour lecture, which will take place in the Linder Theater. For additional information about this program call (212) 769-5750.

## Celebrate

### The Royal Tombs of Sipán

With Peruvian Specialties at the Garden Cafe

Lunch, Mon.-Fri: 11:30 - 3:30

Weekend Brunch, Sat. - Sun: 11 - 4  
Dinner, Fri. - Sat: 5 - 7:30

Reservations suggested  
Call the Garden Cafe at 212-769-5865  
Located on the Lower Level





# Happenings at the Hayden

## Lectures

### Frontiers in Astronomy and Astrophysics

On Tuesday, November 15, at 7:30 p.m., Robert Brown of the Space Telescope Science Institute will present an illustrated talk, "The Latest Findings from the Hubble Space Telescope." Brown will offer an update on the information gathered from the Hubble Space Telescope and take a look at its future investigations.

On Monday, December 5, at 7:30 p.m., Michio Kaku, professor of theoretical physics at the City University of New York, will present an illustrated talk, "Parallel Universes, Time Warps, and the Tenth Dimension." Kaku will discuss one proposed theory that explains all of the forces in the universe — time travel, what came before the Big Bang, and what is beyond the universe.

These lectures are part of the Frontiers in Astronomy and Astrophysics series. Tickets are \$6 for Participating and Higher Members and \$8 for non-Members. For information about ticket availability and upcoming lectures, call (212) 769-5900. Use the coupon below to order tickets.

## Eleventh Annual Holiday Concert

### A Midwinter Night's Dream

On Wednesday, December 14, and Thursday, December 15, at 7:30 p.m., the world-famous Ensemble for Early Music returns to the Planetarium's Sky Theater for a medieval celebration of the holiday season. Enjoy the music of the royal courts of Europe while the wizardry of the Planetarium's special effects transports you through a wonderful variety of environments, from castles bathed in moonlight to a cozy fireplace at an ancient inn to a pine forest under a brilliantly starry sky.

Participating and Higher Members are entitled to four tickets at \$18 each. Additional tickets may be purchased at the non-Members' price of \$20 each. Use the coupon below to register, and for further information call (212) 769-5900.

## Sky Shows

### Update: The Universe

New discoveries from space are made on a daily basis, including information about black holes, new planets, and colliding galaxies. This fast-paced Sky Show, which uses a "news magazine" presentation, brings viewers up to date on all the latest astronomical discoveries.

In the past three years telescopes such as the Compton Gamma Ray Observatory, the European ROSAT, and the recently overhauled Hubble Space Telescope have been exploring the universe from space. At the same time, giant earth-bound telescopes scan the heavens, searching for signs of intelligent life in our galaxy. *Update: The Universe* explores cutting-edge research from the quest for extraterrestrial life to studies that peel back time in search of the dawn of creation.

## Star of Christmas

### November 23 through January 1

At this holiday program viewers gaze out on a clear winter's night and travel back nearly 2,000 years to explore the skies of the first Christmas. Just what led the Wise Men to Bethlehem? Was it a special star that no one else had seen before? A comet? Or something else? Join us for this special holiday tradition.

**Admission** (Participating and Higher Members):

Adults: \$4

Children (2-12): \$2

Call (212) 769-5100 for show schedule and non-Members' prices. Please note that prices are subject to change without prior notice.

### Children's Shows

*Wonderful Sky* is a special Sky Show for preschoolers. Children sing along with images of their favorite Sesame Street Muppets as they learn

about rainbows, the phases of the moon, sunsets, and stars. Sat., Nov. 5, at 10:30 a.m., and Sat., Dec. 3, at 10:30 and 11:45 a.m. Admission for Participating and Higher Members is \$4 for adults and \$2 for children. Members can purchase up to four tickets at the Members' price.

Shows usually sell out in advance; reservations, by mail only, are necessary. Make your check payable to the Hayden Planetarium (attn: Wonderful Sky, Central Park West at 81st Street, New York, NY 10024-5192); indicate membership category and a first and second choice of showtimes. Be sure to include a self-addressed, stamped envelope and your daytime telephone number. For additional information call (212) 769-5900.

*Robots in Space* features Lucasfilm's R2D2 and C-3PO<sup>™</sup> and has been created especially for children ages 7 to 12. Together with a live host, these famous space robots take children on a tour of the universe. See how satellites and probes — the real space robots — help us learn about worlds near and far. Journey from the earth to other planets and distant black holes. Sat., Nov. 5, and Sat., Jan. 7, at 11:45 a.m. Admission for Participating and Higher Members is \$4 for adults and \$2 for children. For information, call (212) 769-5900.

## Courses for Stargazers

The Planetarium offers a variety of courses for adults and families in astronomy, meteorology, aviation, and navigation. For further information and a catalog of courses call (212) 769-5900.

## Laser Shows

Journey into another dimension where laser visuals and rock music combine to create a dazzling 3-D experience of sight and sound. Shows are presented on Fridays and Saturdays at 7:00, 8:30, and 10:00 p.m. For prices and show schedule, telephone (212) 769-5100.

**It's always a good idea to call before visiting the Planetarium, since prices, programs, and showtimes are subject to change without notice. For general Planetarium information, call (212) 769-5100.**

**Holiday Concert.** Please indicate a first and second choice of times.

\_\_\_Wed., Dec. 14 \_\_\_Thurs., Dec. 15

Number of Members' tickets at \$18:\_\_\_

Number of non-Members' tickets at \$20:\_\_\_

Total amount enclosed for program:\_\_\_

**Lecture.** "Parallel Universes, Time Warps, and the Tenth Dimension." Monday, December 5, 7:30 p.m.

Number of Members' tickets at \$6

(no more than 4, please):\_\_\_

Number of non-Members' tickets at \$8:\_\_\_

Total amount enclosed:\_\_\_

Name:\_\_\_\_\_

Address:\_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Daytime telephone: \_\_\_\_\_

Membership category: \_\_\_\_\_

Please make check payable to the Hayden Planetarium and mail with a **self-addressed, stamped envelope to: Concert or Lecture, Hayden Planetarium, Central Park West at 81st Street, New York, NY 10024-5192.**

Please note that ticket orders are subject to availability and cannot be processed without telephone number and stamped, self-addressed envelope. **Do not include ticket requests or checks for American Museum programs.**

## Museum Notes

### Hours

#### Exhibition Halls

Mon.-Thurs. & Sun. . . . . 10:00 a.m.-5:45 p.m.

Fri. & Sat. . . . . 10:00 a.m.-8:45 p.m.

#### The Museum Shop

Mon.-Thurs. & Sun. . . . . 10:00 a.m.-5:45 p.m.

Fri. & Sat. . . . . 10:00 a.m.-7:45 p.m.

#### The Junior Shop

Mon.-Fri. . . . . 10:00 a.m.-4:45 p.m.

Sat. & Sun. . . . . 10:00 a.m.-5:45 p.m.

#### The Museum Library

Tues.-Fri. . . . . 11:00 a.m.-4:00 p.m.

#### The Natural Science Center

*For children of all ages and their families.*

*Closed on Mondays and holidays.*

Tues.-Fri. . . . . 2:00-4:30 p.m.

Sat. & Sun. . . . . 1:00-4:30 p.m.

#### The Discovery Room

*Passes are distributed at the first-floor information desk beginning at 11:45 a.m. Ages 5-15.*

*Children must be accompanied by an adult.*

*Closed on holidays and weekdays.*

Sat. & Sun. . . . . Noon-4:30 p.m.

#### Museum Dining

##### Diner Saurus Fast Service Eatery

Daily . . . . . 11:00 a.m.-4:45 p.m.

##### Garden Cafe

*Reservations: (212) 769-5865*

*Lunch: Mon.-Fri. . . . . 11:30 a.m.-3:30 p.m.*

*Dinner: Fri. & Sat. . . . . 5:00-7:30 p.m.*

*Brunch: Sat. & Sun. . . . . 11:00 a.m.-4:00 p.m.*

##### Whale's Lair

Fri. . . . . 3:00-8:00 p.m.

Sat. . . . . Noon-8:00 p.m.

Sun. & most holidays . . . . . Noon-5:00 p.m.

Snack Carts (at 77th Street & on the first floor of the Roosevelt Memorial Hall)

Sat. & Sun. . . . . 11:00 a.m.-4:00 p.m.

## Parking

The Museum's parking lot now offers expanded hours and revised rates. The parking lot, which is operated in conjunction with the Edison Hayden Corporation, is open every day from 7:00 a.m. till 11:30 p.m.

Rates for cars entering between 7:00 a.m. and 5:00 p.m. start at \$5 for up to a half-hour and advance by stages to a closing-time maximum of \$17. Cars entering between 5:00 p.m. and 11:30 p.m. are charged a minimum of \$5 and a maximum of \$7 on Sunday through Thursday and a maximum of \$12 on Friday and Saturday.

Buses are charged \$11 and are not admitted on weekends.

The parking lot has a capacity of 100 vehicles and is operated on a first-come, first-served basis. Hertz Manhattan, located one block away from the Museum at 210 West 77th Street (between Broadway and Amsterdam), offers parking discounts to Members: on Monday through Friday Members receive a \$2 discount off regular prices and on Saturday and Sunday they receive a \$3 discount.

Call the Membership Office at (212) 769-5606 for information about alternative parking.

## Naturemax

The new IMAX film *Africa: The Serengeti* explores the relationships between predator and prey by following the great migration of wildebeests, zebras, and other animals. Showtimes are 10:30 and 11:30 a.m. and 1:30 and 3:30 p.m. daily.

*Yellowstone* takes viewers on a journey to discover the history, geology, and wildlife of the national park. Showtimes are 12:30, 2:30, and 4:30 p.m.

On Friday and Saturday at 6:00 and 7:30 p.m., *Africa: The Serengeti* is shown on a double bill with *Yellowstone*. Schedules and prices are subject to change without notice. Call (212) 769-5650 for further information. See page 5 for details of the Members' evening at Naturemax.

**Admission** (Participating and Higher Members)

Adults: \$4.75 single feature; \$6 double feature

Children: \$2.25 single feature; \$3.25 double feature.



Sun

Mon

Tue

Wed

Thu

Fri

Sat

# American Museum of Natural History November 1994

1

**27:30 p.m.** Amateur Astronomers Association. Edith C. Blum Lecture Room. Free.

3

**46:00, 6:30, 7:00, and 47:30 p.m.** Members' tours of *Empires Beyond the Great Wall*. Free, and open only to Participating and Higher Members. Tickets required. Page 2. All tours are **SOLD OUT**.

**511:00 a.m., 1:00 and 3:00 p.m.** *Chemistry for Kids*. Members' family program. Kaufmann Theater. \$7 for Members, \$10 for non-Members. Page 2.

**11:00 a.m.** NY Map Society. Room 319. Free.

6



**87:30 p.m.** Linnaean Society of NY. Speaker, Saul Frank: "The Florida Burrowing Owl." Linder Theater. Free.

**95:30 p.m.** NY Mineralogical Club. Room 319. Free.

**7:00 p.m.** *Eyes of the World*. Members' evening program. Kaufmann Theater. \$7 for Members, \$10 for non-Members. Page 3.

10

**11** Veterans Day. The Museum is open.

12



**132:00 p.m.** NY Shell Club. Room 319. Free.

14

**157:00 p.m.** NY Entomological Society. Room 319. Free.

16

**7:30 p.m.** *Frontiers in Astronomy and Astrophysics*. Speaker, Robert Brown: "The Latest Findings from the Hubble Space Telescope." Planetarium Sky Theater. Page 7.

**177:00 p.m.** *The Samaritans: People of the Sacred Mountain*. Members' evening program. Main Auditorium. \$7 for Members, \$10 for non-Members. Page 1.

18

**7:00 p.m.** NY Microscopical Society. Room 319. Free.

**197:30 a.m.-7:30 p.m.** Members' Day Trip to Montauk Point. \$60, and open only to Participating and Higher Members. Tickets required. Page 2.

**2:00 and 4:00 p.m.** *Voices in Movement*. Kaufmann Theater. Free. Page 5.

**202:00 p.m.** NY Paleontological Society. Room 319. Free.

21

**227:00-9:00 p.m.** *The Members' seminar*. Page 2.

**7:30 p.m.** Linnaean Society of NY. Speaker, Walter Ellison, SUNY-Albany: "A Dixie Sprite in Yankeland: The Blue-Gray Gnatcatcher." Linder Theater.

**11:00 a.m.** *The Origami Holiday Tree* goes on display on the first-floor

23

**24** Thanksgiving Day. The Museum is closed.



**258:30 a.m.** *Striped Bass Tag and Release*, sponsored by Friends of Fishes. \$100 per person. Page 6.

26

**27** Last chance to see *Empires Beyond the Great Wall: The Heritage of Genghis Khan* in Gallery 77.

**28** Hanukkah.

**296:30 p.m.** *Eco Impact Forum*. Speaker, Mark Priest: "Environmental Impacts on Recreational Fishing." Linder Theater. Free. Page 6.

**307:00 p.m.** *Female Genital Mutilation*. Members' evening program. Main Auditorium. \$7 for Members, \$10 for non-Members. Page 2.

## Entrances

During Museum hours visitors can enter the building through the 77th Street entrance, the parking lot entrance (81st Street), or the Roosevelt Memorial Hall entrance (79th Street and Central Park West). Visitors attending programs after hours can enter the building through the driveway entrance at 79th Street and Central Park West.

## Temporary Closings

While the Museum is getting ready for an exciting new program for visitors, two exhibition halls will close temporarily. The Hall of Oceanic Birds, on the second floor, is already closed, and the Hall of Asian Mammals will close on December 12. Both halls will reopen in January.



# ROTUNDA

For Participating and Higher Members of the American Museum of Natural History

Vol. 19, No. 11 December 1994



*Female lions raise the young and do most of the hunting.  
Lions are one of the many predators featured in Africa: The Serengeti.*

Members' Private Viewing at the Naturemax Theater

## Africa: The Serengeti and Yellowstone

Wednesday, December 21  
7:00 p.m.  
\$6, and open only to Participating and Higher Members

Members' night at the Naturemax Theater — a double-feature showing of *Africa: The Serengeti* and *Yellowstone* — will take viewers on an IMAX safari across the plains of East Africa and inside the world's most famous geyser.

Every year more than a million wildebeests undertake the great migration across the Serengeti in search of water, greener pastures, and their ancient calving grounds. They travel from 500 to 800 miles in the course of this eight-month odyssey. The great migration has been perfected

and balanced over millennia; dozens of species have adapted over time and depend on the migration as a crucial element of their thriving, self-sustaining ecosystem.

The wildebeests are preceded by 200,000 zebras, which crop the coarse grasses, making them more palatable for wildebeests. The wildebeests are followed by half a million gazelles, which feed on the even more closely trimmed grass. Along the journey the migrating animals are stalked by numerous predators. Lions, cheetahs, wild dogs, hyenas, and other

animals depend on the herbivores for a constant food supply. The predators help maintain a natural balance by culling the weaker or slower animals. *Africa: The Serengeti* is 40 minutes long and narrated by James Earl Jones.

America's oldest and largest national park is explored in *Yellowstone*, a spectacular journey with highlights ranging from sunrise over the Grand Tetons to a river trip to the brink of the Grand Canyon's lower falls.

The 2.2 million-acre national park,

which was created in 1872, covers an area larger than Rhode Island and Delaware combined. The earth's crust, which is normally 30 to 40 miles thick, is only 3 to 4 miles thick in the Yellowstone area and is cracked from stretching. The film examines the park's volcanic wonders, including never-before-seen footage of the inside of Old Faithful. *Yellowstone* also looks at the park's history and its beavers, bears, elk, and other wild denizens. The film is 32 minutes long.

Use the December Members' programs coupon on page 3 to register.



## Wauja Sharing Rituals

**Saturday, December 3**

Kids will play a trading game based on an Amazonian Indian tradition at the Members' family workshop *Wauja Sharing Rituals*. The Wauja (pronounced WOW-sha) of Brazil engage in a friendly system of barter with other tribes. The custom transforms a material obligation that's similar to taxation into a joyous celebration of generosity.

Each child will be given two each of a variety of items (mostly miniatures of Amazonian animals) — one to keep and one to barter. As they sit in a circle and trade and bargain for rubber lizards, parrots, and coatimundis, the children experience the fun of sharing and discover that everyone can be a winner.

The workshops are presented by anthropologist Emillienne Ireland. The 11:00 a.m.-to-noon workshop is for participants between the ages of 4 and 8, and the 1:30 – 3:00 p.m. program is for 9- to 12-year-olds. Tickets are \$16 per couple for Members and \$20 per couple for non-Members. Use the coupon on page 5 to register, and please note that tickets are available only by mail.

## Precolumbian Gold

**Tuesday, December 6**

Members can take a guided tour of the Metropolitan Museum of Art's Jan Mitchell Treasury for Precolumbian works of art in gold, which comprises items from all the goldworking areas of the ancient Americas. The 250 works on display, which trace the development of metal-working technology, include jewelry and funerary offerings

and cover a wide range of periods, styles, and regions. They range in date from the last centuries of the first millennium BC until the time of the Spanish conquest in the early sixteenth century.

Tours will take place at 1:00, 3:00, and 4:00 p.m. Before and after the 45-minute tours Members can explore the museum's other exhibitions until closing time at 5:15 p.m. Tickets are \$18 and available only to Participating and Higher Members. Use the coupon on page 5 to register, and please note that tickets are available only by mail.

## Geology of the Planets

**Thursdays, December 8 and 15**

The moons of Jupiter, Mercury's cratered surface, and the Martian equivalent of the Grand Canyon are among the focal points of a two-part lecture series. Geologist Sidney Horenstein, the Museum's coordinator of environmental public programs, will use slides and videos to take Members on a geological voyage around the solar system.

The lectures will begin at 7:00 p.m. in the Kaufmann Theater. Tickets are \$15 for Members and \$20 for non-Members. Use the December Members' programs coupon on page 3 to register.

## Origami Holiday Workshops

**Sunday, December 11**

Members of all ages can learn to fold charming origami models of animals, stars, and other figures at the sixteenth annual *Origami Holiday Workshops*. Mu-

seum volunteers and members of Origami USA will be on hand to instruct participants, and Members will receive origami paper and instructions to take home.

The *Young Children's Workshop* is geared toward children between the ages of 4 and 6, and the *Beginners' Workshop* toward ages 6 and older. Participants in the *Intermediate Workshop*, which is for ages 7 and older, should be comfortable with origami folds such as mountains and valleys, rabbit ears, inside-reverse, and squash folds.

The workshops will take place at 10:30 and 11:30 a.m. and at 2:00 and 3:00 p.m. There is a \$3 materials fee per person, and tickets are available only to Participating and Higher Members. Use the coupon on page 3 to register.

## Make a Holiday Gingerbread House

**Saturday, December 17, and Sunday, December 18**

Candy canes, jelly beans, and gumdrops are the sweet tools of the trade at the Members' annual gingerbread-house-making workshop. June Myles will show participants how to raise the roof-beams of the no-bake houses, and parents and kids can use a variety of colorful candies and cookies to decorate their gingerbread houses and apartments.

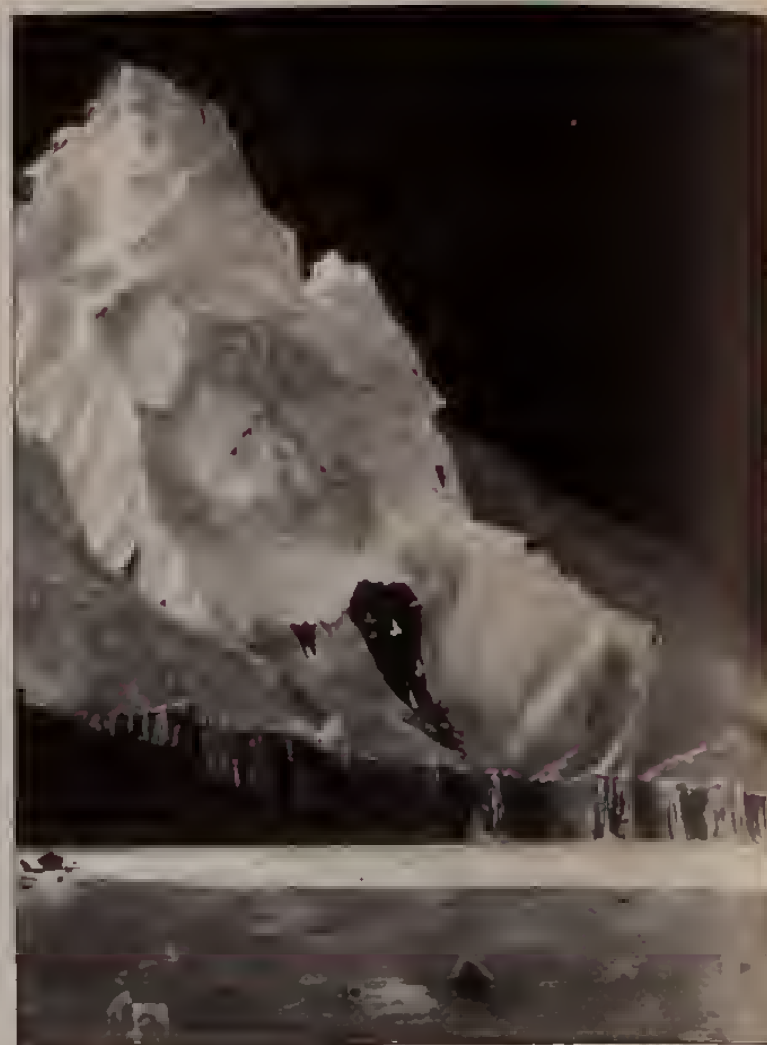
The workshops, which are appropriate for children between the ages of 5 and 10, will take place from 10:30 a.m. to noon and from 1:30 to 3:00 p.m. Tickets are \$30 per couple and available only to Participating and Higher Members. Use the coupon on page 5 to register, and please note that tickets are available only by mail.

## Toyland Express

**Thursday, December 29**

Toys from the past, present, and future are the cargo of the *Toyland Express*, a musical revue presented by the Bob Brown Puppets. Children will be fascinated by the singing and dancing marionettes, which include a juggling teddy bear, a jack-in-the-box, a transformer robot, and a space alien.

The performance, which is appropriate for children between the ages of 4 and 8, will take place at 1:00 and 3:00 p.m. in the Kaufmann Theater. Tickets are \$7 for Members and \$10 for non-Members. Use the coupon on page 3 to register.



Geology of the Planets on December 8 and 15

# ROTUNDA

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Two Armadillos, a Wauja drawing



# The Monkey Wars

Thursday, January 26

7:00 p.m.

Kaufmann Theater

\$5 for Members, \$8 for non-Members

The debate over animal research is a war — a war over control and a philosophical war about who we are. As the earth's dominant species are we without responsibility except to our own kind, or are we stewards of the planet? Should scientists and researchers be accountable to the community at large for their practices, or should the importance of their work accord them a "no questions asked" policy? What role do the media play in this debate, and how can they make science more accessible to the public?

Journalist Deborah Blum, a science writer for the *Sacramento Bee*, will explore this complicated issue at a Members' program based on her new book from Oxford University Press, *The Monkey Wars*. Originally a series of investigative articles for the *Bee* that won a Pulitzer Prize and the AAAS-Westinghouse Award, *The Monkey Wars* takes an in-the-trenches look at the raging battle over the use of primates in scientific research. It features exclusive interviews with the top representatives on both sides, from Alex Pacheco, founder of People for Ethical Treatment



A look at the use of primates in scientific research

of Animals, the country's most powerful animal rights group, to Peter Gerone, head of the federal primate center at Tulane University.

*The Monkey Wars* vividly brings to life the views of scientists and researchers desperately searching for life-saving cures, the intelligent

and sensitive primates that undergo grueling experiments to serve that end, and the people who make saving the primates their life's work.

Blum's book will be available for purchase at the program, and she will sign copies after the show. Use the coupon at right to register.

Members' Behind-the-Scenes Tours of the

## Department of Invertebrates

Saturday, January 21

\$12, and open only to Participating and Higher Members

Appropriate for ages 13 and up

The history of life on earth, from time immemorial into the future — that's the scope of the Department of Invertebrates' studies. Next month Members can take a look behind the scenes in Invertebrates, visiting collection areas and labs that are never open to the general public to hear about ongoing research projects.

Scientists from the department will be on hand to describe their work and display specimens they've collected in the field. By examining the record of fossil and modern invertebrates scientists classify a diverse group of animals, documenting their evolution and (sometimes) their extinction.

Members will also learn about the department's role in preparing an upcoming exhibition on biodiversity. This major exhibition, which is scheduled to open in 1996, will explore evolutionary and ecological aspects of diversity, the causes of mass extinctions of the geological past, and

the imminent threat to modern diversity posed by human habitat destruction.

The tours last about one

hour. Use the coupon below to register, and please note that tickets are available only by mail.

**Behind-the-Scenes Tours of the Department of Invertebrates.** Saturday, January 21. \$12, and open only to Participating and Higher Members. Tours will leave at 15-minute intervals. We will send you confirmation by mail indicating the exact time your tour will start. Please indicate a preference.

☐ Between 10:30 a.m. and noon  
☐ Between 1:15 and 2:30 p.m.

Number of tickets at \$12 each: \_\_\_\_\_  
Total amount enclosed for program: \_\_\_\_\_

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Please make check payable to the American Museum of Natural History and mail with a self-addressed, stamped envelope to: *Behind the Scenes*, Membership Office, American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192.

## December Members' Programs Coupon

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Daytime telephone: \_\_\_\_\_

Membership category: \_\_\_\_\_

Total amount enclosed: \_\_\_\_\_

Please make check (if applicable) payable to the American Museum of Natural History and mail with a **self-addressed, stamped envelope** to: *December Members' Programs*, Membership Office, American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192. **Telephone reservations are not accepted. No refunds or exchanges.**

**Unless otherwise indicated, no more than eight tickets may be ordered for a program. Participating Members are entitled to four tickets per program at the Members' price. Higher Members are entitled to six tickets, and Associate Members are entitled to one ticket.**

**Geology of the Planets.** Thursday, December 8 and 15, 7:00 p.m.

Number of Members' tickets at \$15: \_\_\_\_\_

Number of additional tickets at \$20: \_\_\_\_\_

Total amount enclosed for program: \_\_\_\_\_

**Origami Holiday Workshops.** Sunday, December 11.

Please indicate workshop level and a first, second, and third choice of times.

☐ Young Children's Workshop

☐ Beginners' Workshop

☐ Intermediate Workshop

☐ 10:30 a.m. ☐ 11:30 a.m.

☐ 2:00 p.m. ☐ 3:00 p.m.

Number of Members' tickets at \$3: \_\_\_\_\_

Total amount enclosed for program: \_\_\_\_\_

**Members' private viewing at the Naturemax Theater**

Wednesday, December 21, 7:00 p.m.

Number of Members' tickets at \$6: \_\_\_\_\_

Total amount enclosed for program: \_\_\_\_\_

**Toyland Express.** Thursday, December 29.

Please indicate a first and second choice.

☐ 1:00 p.m. ☐ 3:00 p.m.

Number of Members' tickets at \$7: \_\_\_\_\_

Number of additional tickets at \$10: \_\_\_\_\_

Total amount enclosed for program: \_\_\_\_\_

**Seven Years in the Life of a Grizzly Family**

Thursday, January 19, 7:00 p.m.

Number of Members' tickets at \$8: \_\_\_\_\_

Number of additional tickets at \$12: \_\_\_\_\_

Total amount enclosed for program: \_\_\_\_\_

**The Monkey Wars.** Thursday, January 26, 7:00 p.m.

Number of Members' tickets at \$5: \_\_\_\_\_

Number of additional tickets at \$8: \_\_\_\_\_

Total amount enclosed for program: \_\_\_\_\_

**Undersea Safari.** Saturday, January 28. Please indicate a first and second choice.

☐ 1:30 p.m. ☐ 3:30 p.m.

Number of Members' tickets at \$5: \_\_\_\_\_

Number of additional tickets at \$8: \_\_\_\_\_

Total amount enclosed for program: \_\_\_\_\_

**About the Jews of India: Cochin.** Tuesday, January 31, 7:00 p.m.

Number of Members' tickets at \$7: \_\_\_\_\_

Number of additional tickets at \$10: \_\_\_\_\_

Total amount enclosed for program: \_\_\_\_\_

**NOTE: Orders received less than ten days before show dates will be held for pick-up at the door on the day of the program if tickets are still available. If an event is sold out, you will be advised in writing or by phone and your check will be returned.**



## Undersea Safari

Saturday, January 28  
1:30 and 3:30 p.m.  
Kaufmann Theater  
\$5 for Members, \$8 for non-Members  
Ages 4-8



*A musical voyage with Chris Rowlands*

Young Members will venture under the sea with award-winning singer-songwriter Chris Rowlands. They'll learn about tidepools, the food chain, high and low tides, and myriad sea creatures.

*Undersea Safari* is a high-energy show that combines music, humor, and fascinating facts (a blue whale is as big as three schoolbuses back to back — its arteries are so big

that you could walk through them!). Kids clap and sing along with catchy songs about the value of protecting the oceans and all their inhabitants.

Chris Rowlands has performed his popular programs on recycling and marine life at schools, fairs, and nature centers throughout the eastern United States. Use the December Members' coupon on page 3 to register.

## Seven Years in the Life of a Grizzly Family

Thursday, January 19  
7:00 p.m.  
Kaufmann Theater  
\$8 for Members, \$12 for non-Members

Ranger Rick McIntyre will introduce Members to Little Stony and his family, a bear clan that McIntyre observed over a seven-year period in Alaska's Denali National Park.

Little Stony and McIntyre met when the cub was just five months old and the size of a teddy bear. Restless and energetic, Stony was often seen attempting to coax his sedate mother into play, nibbling the rubber bumpers of cars, batting at traffic cones, or rolling in roadside meadows for amused tourists.

By the time he was a full-grown grizzly Stony's insatiable curiosity and appetite led him into serious trouble. Stony's story, which McIntyre recorded in *Grizzly Cub: Five Years in the Life of a Bear* (Alaska Northwest Books, 1990), dramatizes the conflict between the rights of park visitors to experience nature and the needs of wildlife to live unhampered by humans. McIntyre will show spectacular slides of Stony, his mother, and his younger twin sisters, as well as pictures of the park's other denizens — wolves, Dall sheep, caribou, and moose. His work with the National Park Service has brought him to Denali for 14 summers as a seasonal park ranger, and his outdoor and wildlife photography and writing have appeared in



*Little Stony and his mother*

numerous publications. His book *Denali National Park: An Island in Time* appeared in 1986. McIntyre is donating a portion of his royalties from *Grizzly Cub* to the newly established Grizzly Fund, which is sponsored by the Denali Foundation.

Use the December Members' program coupon on page 3 to register.

## About the Jews of India: Cochin

Tuesday, January 31  
7:00 p.m.  
Main Auditorium  
\$7 for Members, \$10 for non-Members

In 1961, when ethnomusicologist Johanna Spector first visited the Cochin area of Southwest India's Malabar coast, she studied and photographed the Jewish community that had lived and prospered there for nearly 2,000 years. By 1976, when *About the Jews of India: Cochin* was completed, most of the 4,000 residents had resettled in Israel.

*About the Jews of India: Cochin* is the first of Spector's two films about the community. (The second film, *2,000 Years of Freedom and Honor: The Cochin Jews of India*, premiered at the Museum in 1993.) The first film focuses on the community's history, material culture, and religious customs to reconstruct a way of life that no longer exists.

The film combines still photographs taken in 1961 and footage shot in the 1970s with archival material, graphics, artifacts, and oral and documented history of the community. Authentic music of the Cochin Jews, recorded for the first time by Spector, accompanies the entire film.

Although the Cochin community adamantly maintained its Jewish identity it could not avoid the influence of Hindu society: contrary to Jewish law, it developed a caste-like internal system that persisted until the 1950s, when the community left for Israel. Its three endogamic groups were the *mevhasim* ("of lineage"), the *malabarim* ("black Jews"), and the *meshuhharim* ("freed slaves or their descendants").

In a country unusually free of anti-Semitism, the Cochin Jews rose to high office and served as the advisers and emissaries of the rajahs. Their prosperous, influential, and peaceful existence continued throughout the colonial Dutch and British periods; however, when Israel was established in 1948 they felt that their age-old prayers had been answered, and they returned to their ancient homeland.

Spector will introduce the 30-minute film and answer questions after its screening. This program is two hours long and the second in a series of Spector's ethnographic films. An upcoming feature will profile the Jews of Yemen.

Use the December Members' program coupon on page 3 to register.

### Members' Workshop

## Identifying Rocks and Their Minerals

Tuesdays, January 10, 17, and 24  
5:30-7:30 p.m.  
\$60, and open only to Participating and Higher Members

Here's the chance to learn the difference between igneous, sedimentary, and metamorphic rocks. Geologist Sidney Horenstein, the Museum's coordinator of environmental public programs, will host a workshop that shows how to identify and classify the major groups of rocks and how to recognize the indicators of their geological significance.

Participants will learn about the minerals that are the building blocks of rocks from actual specimens and Museum exhibits. After the three-part workshop they will not take any rock for granite.

Use the coupon on page 5 to register, and please note that tickets are available only by mail.



## Kwanzaa Celebration

Kwanzaa is an African-American holiday that celebrates the richness and diversity of centuries of African culture and values that survived the diaspora. The observance of Kwanzaa offers African-derived cultures an opportunity to explore their roots and recognize their collective identity.

## Chilean Festival

### CANCELLED

In conjunction with the Mission of Chile, the Department of Education presents a mini-festival of films and a series of performances that celebrate Chilean culture and reflect social, political, and environmental conditions.

Performance: Los Tres, December 9, at 8:00 p.m. in the Kaufmann Theater.

Film festival: December 2, 7:30 p.m.; December 3 and 4, 1:00-5:00 p.m.; Kaufmann Theater.

## African Marketplace

**Friday, December 30  
Noon-5:00 p.m.**

A traditional African village market — with all its colorful activities, dynamic interaction, and gaiety — will be recreated at the Museum as part of the Kwanzaa celebration.

In the Hall of Invertebrates (first floor), artisans will exhibit and sell Afro-centric products such as carvings, traditional textiles, and jewelry. The Hall of Ocean Life, also on the first floor, will feature African foods and performances.

## World Celebrations

Weekend programs at the Leonhardt People Center will take a cross-cultural look at winter, harvest, and ritual celebrations around the world. The programs — which will include slide-illustrated talks, lecture-demonstrations, and films — will take place on December 3, 4, 10, 11, 17, and 18.

For information or a brochure detailing these events, call the Education Department at (212) 769-5315.

Support for Education Department programs is made possible by gifts and grants from Citicorp/Citibank, Henry Nias Foundation, Inc., Jack and Susan Weisberg Foundation, J. Scholarship Fund, the Lila Acheson Wallace Fund at the New

York Community Trust, Samuel and May Rudin Foundation, the Helena Rubinstein Foundation, the Vidda Foundation, William Randolph Hearst Foundation, and the family of Frederick H. Leonhardt.

## Royal Tombs of Sipán

*Precolonian treasures from the richest tombs ever excavated in the Western Hemisphere*



Donald McCullough

A glittering array of gold, silver, and gilded copper artifacts are on display in Gallery 3's Royal Tombs of Sipán. The exhibition explores the culture and art of the Moche, a pre-Inca civilization that dominated northern Peru from AD 100 to 800. Archeologists discovered the first Moche royal tomb in 1987 at a small eroded adobe brick pyramid near the Peruvian village of Sipán.

The exhibition will be on display until January 1. There is no additional charge for viewing this special exhibition; the Members' price is \$4 for adults and \$2 for children.

Among the exhibition's treasures are gold and turquoise ornaments (top), a gold and silver peanut necklace (below left), and a gold and turquoise ornament depicting a warrior (below right).



Christopher DeLeon



Christopher DeLeon

This exhibition was organized by the Fowler Museum of Cultural History at UCLA and the Brüning Archaeological Museum in Peru with the cooperation of the National Institute of Culture, Peru, and support from the National Endowment for the Humanities and the Alimanson Foundation. Its presentation at the American Museum has been

generously supported by the following companies: ASARCO Incorporated/Southern Peru Copper Corporation, Anapero/LOPTUR, Banco de Crédito del Perú, and el diario/LA PRENSA. Some of the proceeds from the exhibition will contribute to the building of a new wing at the Brüning for a permanent display of the treasures.

**Tours, Day Trips, and Workshops.** Use this coupon to register for the guided tour *Precolonian Gold* (indicate a first and second choice of times); and the workshops *Vegetable Carving* (indicate a first and second choice of times), *Identifying Rocks and Their Minerals*, *Make a Holiday Gingerbread House* (please state which day and a first and second choice of times), and *Wauja Sharing Rituals* (be sure to indicate 11:00 a.m. for ages 4-8 or 1:30 p.m. for ages 9-12).

Name(s) of program(s): \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Number of tickets and price (please indicate which program if more than one): \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Total amount enclosed: \_\_\_\_\_

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Daytime telephone: \_\_\_\_\_

\_\_\_\_\_

Membership category: \_\_\_\_\_

Please make check payable to the American Museum of

Natural History and mail with a **self-addressed,**

**stamped envelope** to: *Tours and Workshops,*

Membership Office, American Museum of Natural

History, Central Park West at 79th Street, New York,

NY 10024-5192.

### Members' Workshop

## The Art of Vegetable and Fruit Carving

**Sunday, January 8**

**11:00 a.m. and 1:30 p.m.**

**\$20, and open only to Participating and Higher Members**

Since ancient times Thai women have transformed ordinary fruits and vegetables into works of art. Using only a couple of sharp knives and garden-variety products, they create out-of-season flowers and exotic garnishes for the dinner table.

Artist Kalaya Tongchareon Paragas will show Members how to make their own vegetable and fruit carvings. They'll make beautiful flowers from carrots, cucumbers, onions, and pumpkins. Participants should bring a paring knife and a small, sharp carving

knife with a pointed tip and a three-inch blade. Vegetables and fruits will be supplied to participants.

Use the coupon at left to register for the 90-minute workshop, and please note that tickets are available only by mail.



# Letter from the Gobi

by Priscilla McKenna

Every year since 1990 paleontologists from the American Museum venture into the Gobi Desert with scientists from the Mongolian Academy of Sciences, exploring and collecting specimens from its rich fossil beds. This is the region that yielded many of the spectacular dinosaur fossils unearthed by the Museum's Central Asiatic Expeditions of the 1920s. Travel through the Gobi hasn't gotten any easier in the past 70 years, as we can see by a letter from expedition member Priscilla McKenna.

**Wednesday, July 22, 1992**  
Naran Bulak ("Sunny Spring"), Mongolia

Dear Everybody,

We arrived here yesterday at sundown after a most extraordinary journey. Five days ago we set forth from Tugrugeen Shireh ("Tugrugeen Mesa"), thinking that even without roads we would cover the 174 (bird flight) miles to this famous desert oasis in two days.

What we didn't take into account was that the parts and batteries of the Russian-made trucks we were using were positively antediluvian and that their radiators were designed for Russian winters, not Gobi summers. Neither did we anticipate that violent rainstorms would have turned the valley bottoms and stream beds into pits of impassable mud.

Finally, after four amazing days of travel we are here at Naran Bulak, an oasis fed by a beautiful artesian spring. This will be our headquarters while we explore the Nemegt Valley.

We are an armada — eight vehicles and 17 people. Six of us come from the American Museum: Jim Clark and Mark Norell, Lowell Dingus and Mike Novacek, Malcolm McKenna (Priscilla's husband), and me, each pair riding in one of the Museum's three Mitsubishi 4 x 4s. Our gear travels in the AMNH's Russian-made military GAZ 66 truck (I will call it GAZ III) with Batsuk at the wheel. GAZ is the Russian acronym for People's Automobile Factory. The BBC-TV crew of three travels in a GAZ Jeep with their mountain of gear on GAZ III, driven by Ot. Our Mongolian paleontologist colleague, Dr. Demberilyin Dashzeveg, travels in the lead truck, GAZ I, which belongs to the Mongolian Academy of Sciences and is driven by Mangaljav.

And then there is the gasoline tank truck carrying our precious 3,000 liters of 93 octane gas, essential for the Mitsubishis. We have christened this behemoth the Benzene Machine and its driver, Baintogtons, has become Benzena, which he thinks is a great joke. He has already broken the tanker's windshield with a snapped tow cable, and that's a good thing, because he chain smokes while he's driving. Our cook, Chooloona, keeps him company in the gale that blows through the front seat. The mechanic/laborer who rides in the back of GAZ I completes the roster.

On a reliability scale of 1 to 10, the Mitsus rate a 7 (the gas tanks keep splitting); GAZ III a 5; GAZ II a 4 (is there really anything wrong with it or does Ot just want a break?); GAZ I a 6 (we were only 10 miles out on the first day when its differential broke up); and the Benzene Machine stands (or falls) at -2. The problem is that the tanker's gasoline is our vital connection to the outside world and home, and we cannot allow ourselves to be separated from it no matter how erratic its behavior.

We spent last week collecting fossils from the late Cretaceous exposures at the Flaming Cliffs and Tugrugeen, where we found *Protoceratops*, *Velociraptor* and other dromaeosaurs and *Mononykus* (a dinosaur-like bird) and *Zalambdalestes* (a rare small mammal). Despite our success, we impatiently awaited our crossing of the 9,000-foot Nemegt Range to travel deep into the southern Gobi and explore the great fossil localities of the Nemegt Valley. The BBC filmed us extensively at Tugrugeen and we were all ready for a change of scene.

As on all our travels, Malcolm drives while I keep the expedition road log with the help of a Global Positioning System (GPS) receiver, which is con-

nected to an antenna on the roof of our Mitsu. We also have portable walkie-talkies in each Mitsu.

You must remember that the Gobi has no developed roads, only ruts and tracks, and mostly there is nothing. There are no fences, so all just go where they please. If you come across a series of tracks, apparently heading in the same general direction and criss-crossing each other, you know that you have found a major thoroughfare that probably leads to a town or a mountain pass. There are no bridges or culverts to help the hapless driver across wet and muddy places, so when you come to such places you look them over carefully and quite often you turn back and go around.

So here, from my road log, is our *Remarkable Progress from Tugrugeen to Naran Bulak*, in distance only 174 bird miles but in time four long days.

**Saturday, July 18, 1992**

From Tugrugeen to the south slope of Arisa Bogd ("Small Holy One"), a mountain range

10:30 a.m. Having packed up, we drove to the top of a hill above Tugrugeen camp and lined up the vehicles for a TV expedition shot. It could not be taken yet because GAZ III was broken down and hadn't made it to the top of the hill. Little did we realize that this was an ominous harbinger of our immediate future.

11:15 a.m. GAZ III made it to the top. Hurray! The expedition shot was taken. The vehicles all rolled for the camera and kept going this time. We had headed southwest for five minutes when GAZ II broke down again. The Benzene Machine kept going and we had to follow it in order to keep it in sight.

The armada stopped at the gher (the nomad's felt-and-canvas house, formerly called a yurt) belonging to the somon (district) head man to give

Polaroids to his family. When we were at Tugrugeen in 1991, he brought the somon wrestling team to our camp to give us a demonstration. Wrestling is to a Mongolian what baseball is to an American. This time he invited us in for a bowl of *arak* (fermented mare's milk), but we had to decline because the Benzene Machine was stuck, spinning its wheels in a small sandy gully. When Benzena finally got out, we resumed our travels to the southwest.

Several times in the next two hours we had to stop while Ot got out of GAZ II and looked underneath at the springs, complaining that his truck was overloaded. These stops were interspersed with pauses to cool the Benzene Machine, the midafternoon stop taking place on the top of a high ridge in a violent thunderstorm. There we all were, clustered around a leaky tanker with 3,000 liters of gasoline while lightning played around our heads. I kept thinking about the tall radio antenna on top of our car. The storm passed, the Benzene Machine cooled, and we got under way again, unstruck by lightning.

Shortly thereafter the tanker hood flew up while Benzena was driving. This happens because he props it open with a rock and piece of wire to keep the engine from boiling so often. We haven't been able to figure out what keeps the rock from falling into the fan. After Benzena rearranged it, we traveled another few minutes before the track plunged into a wash filled with apparently bottomless mud. The Benzene Machine couldn't possibly get across so we had to turn around and try it somewhere to the north.

During our next stop for cooling and repairing, Malcolm and I continued our 1992 Gobi tournament, playing six games of gin rummy. By the time the armada got going again a sandstorm had blown



The armada from top of Flaming Cliffs



Priscilla McKenna shows the route to Demberilyin Dashzeveg and Michael Novacek

All photos courtesy of Priscilla McKenna





*The Benzene Machine in its most frequent posture — hood up*

up and we felt like we were traveling into the wild brown yonder. This only lasted for 100 yards or so when the tanker broke down again. Mike had to race after the lead truck, GAZ I, which never notices what is happening to the rest of us behind.

6:35 p.m. Still stopped. 'Tis said that a heater hose is being fixed. There is a lot of sitting around. Malcolm and I played 15 games of gin rummy. Raining again.

8:00 p.m. Still sitting — no word about camp. Hard showers coming by. Had BBC-TV crew over for gin and Sunkist and listened to BBC shortwave. Played six more games of gin rummy. Finally took the bull by the horns — got stove out and made freeze-dried dinner in hard wind and rain. It tasted wonderful — hot and salty and spicy. Used paper bowls so only one pot to wash.

Today: 15 stops and 12 hands of gin rummy; a typical Gobi day.

#### **Sunday, July 19, 1992**

*From Artsa Bogd to Bayanlig Somon (Bayanlig District)*

8:00 a.m. Sixty-six degrees, partly cloudy and very windy. The BBC filmed Mike making Zabar's coffee in high wind. Four Mongolian drivers were sitting under the hood of the Benzene Machine. They took the engine apart overnight in the rain, using lights powered by a GAZ truck generator. We broke camp and packed everything except food-stuffs and there were still four Mongolians in the tanker engine doing something major. After five hands of gin rummy, Malcolm and I decided to explore the red beds visible to the north against the mountains. These turned out to be a metamorphic rock pile — no fossils — but we found a lone elm tree and a piece of a dead tree trunk waiting to be collected for firewood.

2:05 p.m. Still waiting. Played 20 more hands of gin rummy. Banks of clouds completely obscured Artsa Bogd mountains. The Mongols finally got the tanker engine back together and — *mirabile dictu* — it started. The armada was just about to pull out when it was found that the drain valve pipe at the bottom of the tanker was leaking gas. Two hours later, after much consultation, Benzene climbed into the tank full of gasoline and plugged the hole with a wooden fence post. Said post had been sharpened to a point with a hatchet and the point wrapped with pieces of rotting canvas nailed into the wood. It was necessary to repeat this process several times until the bung was large enough to stay wedged into the hole. Benzene hammered it in with a steel geology hammer while Gasmeister Lowell supervised from the top of the tank. After removing the outside drain pipe from underneath, it was then necessary to plug that hole, too, with a large wad of canvas torn from a GAZ canopy.

At 4:00 p.m. they got the Benzene Machine started and we moved out, unexploded. We were able to travel for almost an hour before the tanker boiled again. Apparently the radiator hoses leak badly and Benzene had to put in six gallons of our precious water supply. It was 80 degrees and windless, causing this whole operation to be repeated

three times in the next two hours. The third time Benzene took the cap off the radiator too soon and it flew 20 feet. We wonder what his magic formula is, how he survives his accidents unscathed. We had time for three more hands of rummy.

On the next stop the tanker got stuck in the sand. We waited while Benzene wandered up into the hills looking for a replacement for his radiator rock, which had fallen out. GAZ II towed him out with a rusty and frayed steel cable. During the next pause to cool the tanker we were able to collect a few scraps of dinosaur bone, thus making us feel somewhat useful. We continued west into a big thunderstorm, hoping to find a passable road going south. Visibility in the torrential downpour was virtually nil.

Finally, at 11:00 p.m. we came to Bayanlig Somon, a town that was not on our map. Malcolm and I were too tired for tent or dinner and just rolled out in our tarp. Mark and Mike cooked for our Mongolian comrades.

Today: 9 stops and 25 hands of gin rummy.

#### **Monday, July 20**

*From Bayanlig Somon to the Nemegt Uul ("Mountain Range")*

8:20 a.m. Fifty-six degrees and partly cloudy. By some process we don't understand, Mongolia is on a kind of double daylight saving time, so sunrise isn't until after 7:00 a.m. and sunset after 10:00 p.m. At 40-45 degrees north latitude, it makes for very short mornings and very long evenings.

The armada headed for the mountains. We found a road there that goes south across the bottom of a valley filled with gigantic mud puddles. You would think we were traveling in the Gobi Sea rather than the Gobi Desert.

We stopped to look it over. A variety of Mongolians arrived on foot and motorbike and a parley was held. The BBC jeep went ahead to film the armada as it pretended to be a flotilla. Two hours later we were all safely across. The Benzene Machine, with engine running and wheels spinning, had to be towed across by GAZ III, and then, of course, we had to wait for it to cool. We had come one mile in two hours. Pretty good!

Not having planned for such a long journey, our gorp was all gone. There was nothing left to eat in our car except jerky and beer. We stopped at a settlement in hopes of getting water but found that the area around the shallow well smelled like an outhouse, so we passed it up.

From the summit of a low pass, we could see the mighty Nemegt Range on the southern horizon and our track seemed to head straight for a low place in the mountain rampart — just where one might expect to find a pass. Maybe we would make it to Naran Bulak by night after all. Our track wound down the bottom of a deep canyon with four real elm trees bravely growing in it. Half an hour later we came out of the canyon and had to stop — the track had disappeared. Mike drove down the slope but couldn't find it. We weren't actually lost; we knew our exact latitude and longitude from the GPS

receiver, but we didn't know how to get across the mountains.

No tracks were visible anywhere so we had to proceed across country down the alluvium and across a dry lake, snaking through fields of dzak, the ubiquitous Gobi plant. Each plant has a multitude of hard spurs — we call it the flat-tire plant. We headed for a canyon visible to the southwest through a landscape that was very rough with gullies and big rocks.

After the next pause to cool the overheated Benzene Machine, Benzene took off without warning directly up the slope toward the mountain rampart. Since we couldn't be separated from our gasoline supply, we were forced to follow through ever-deepening gullies and over ever-bigger rocks. The ground finally became so rough that he was forced to stop. Mike and GAZ I were cruising around farther west, looking for a track through the mountains while we stayed with Benzene, hoping to contain him.

Mike radioed that they found a track and would check it. When the Benzene Machine cooled off from its unplanned uphill diversion, Benzene cranked it up and we had to stop him from leaving on another solo flight. Where did he think he was going? Dashzeveg and Mike were out of sight somewhere and all the rest of us were there. It baffles the mind.

Our Mongolian companions amused themselves by throwing rocks into the dust. Evidently the bigger the spurt of dust thrown up, the better the throw. We amused ourselves by drinking Scotch and water on empty stomachs (our last full meal was two days ago) and playing another 10 hands of gin rummy. Which is better? Who is to say? We felt more cheerful and less worried. The Mongolians had never lost their cheerfulness and were never worried anyhow. No one knew the state of the water supply. We were 33 bird miles from Naran Bulak but we wouldn't get there that night. The view north was really beautiful — austere, pastel-colored, dwarfing human concerns. A song came into my mind, "Here we sit like birds in the wilderness, waiting for Godot."

I think Westerners have lost the ability to wait without serious strain. Is it related to the automobile? This immense country has an aura of timeless waiting and seems deeply attuned to the rhythms of its natural world. We don't really fit in, partly because we have a limited amount of time and money to accomplish a great deal of work. The TV crew fit in better than us because their work was to film our waiting.

An hour later, not having moved, GAZ II and the Benzene Machine both had their hoods up. We got tired of gin rummy and read. Finally, the radio message from Mike came: down went the hoods and the armada moved off down the slope. The sun was low on the horizon. With eight heavy vehicles, we made our own road.

About 9:45 p.m. we decided to camp. Jim and Lowell made freeze-dried Chicken Polynesian for everybody. Our Mongolian companions don't really like chicken, but there hadn't been an opportunity for them to buy a sheep, let alone for Chooloon to cook it. We decided to get up at dawn to look for a road, without troubling with breakfast. The place was too rocky to put up a tent, so we sacked out under a tarp. There was a violent storm in the night but the tarp kept us dry. We discovered that there were only 20 gallons of water left for 16 people and the tanker radiator. We had come 221 miles so far.

Today: 13 stops and 11 hands of gin rummy.

#### **Tuesday, July 21**

*Across the Nemegt Uul and (finally) to Naran Bulak*

7:00 a.m. Sixty-eight degrees. We were packed and waiting for the others to get ready. We hoped to find a track over the mountains at the low spot we saw a few miles west of here — the logical place for it to be. GAZ II had trouble starting and I discovered that the GPS receiver batteries had run down during the night and (even though it was plugged into the car power) lost all data, including 55 recorded waypoints. After that I wrote out all readings in the road log. Computers are wonderful until they stop working.

We came upon a track heading for the mountains, but there was a monument there that informed us that it was washed out. We cooked breakfast while Mike and Dashzeveg went even farther west. Our Mongolian companions passed the time by throwing pebbles at the tanker and we played 10 hands of gin rummy. Our wait was enlivened by a visit from a small snake that was curi-

*continued on page 8*



**Gabi, continued from page 7**

ous about this unexpected invasion of its territory by eight dusty vehicles.

Some two hours later Mike radioed that they had found a track and we all headed west. When we turned onto it, I made sketches and panoramic photos to record where the road enters the mountains. A tractor with lots of people aboard came north and reassured us that the track went all the way across and wasn't washed out. All we had to do was follow its tracks. Unfortunately, now we would have to make the trip across the pass in the hottest part of the day, guaranteeing much boiling of radiators. It was 87 degrees.

The track ran up the bottom of a wash with the canyon walls getting progressively steeper and closer together. Benzema had his usual adventures, including another explosion of his radiator cap and many stops for water. After one such stop he started off without warning up the canyon on another of his unplanned diversions. He didn't see the tractor tracks turn up a side canyon, nor did he see our wild warnings, so he headed the wrong way and, perforce, we had to head the wrong way also. His erratic path ended at an impassable rampart beside two gheers and a multitude of sheep and goats. At this point GAZ II broke down, so said Ot. We thought that perhaps he just wanted to stay and socialize a bit — he was tired of this journey, as were we all. Naran Bulak was a tantalizing 27 bird miles away. If only we could fly. What would Benzema do if he had wings?

Retracing our path, we followed the tractor tracks up into the heights. While the Benzene Machine

cooled for the fifth time, Malcolm and I went up to the summit to reconnoiter. We came to an obo (a pile of rocks, car parts, goat horns, scarves, clothes, and so on, left by travelers as offerings for a good journey) on the top of a hill. We took a right fork from there, which led us to a steep hill that our Mitsui could barely manage. It was dangerous for us and would have been impossible for the tanker. Quickly retracing our tracks to the obo, we got there just in time to wave the Benzene Machine onto the other fork. Benzema and Chooloona passed in the roaring, bounding behemoth with the happiest of laughs on their faces. We were glad that someone was enjoying this journey.

After seven hours of trying, we made it to the summit of the pass. From there we had a gorgeous view of the Nemeget Valley. Malcolm said, "Thank God we're out of the woods!" (What woods? We have seen five trees in the past four days.) But actually, I felt the same way.

As we made our way down the south side of the mountains, we came upon Mike, who'd stopped, concerned about GAZ II. He might have to take an empty vehicle and a Mongolian mechanic back to the pass and either get GAZ II fixed or bring the TV crew's equipment and film down.

There was much sorting of people and stuff. It was necessary to turn GAZ III, which carried our 50-gallon water tank, facing uphill on a slope so that we could drain the last drops of water from its tanks to feed the insatiable radiator of the Benzene Machine.

Afterward Benzema took off at a high speed ahead of the rest of us. We had to overtake him

because we were afraid that he might pass Naran Bulak and roar right on into the trackless and uninhabited desert beyond. Fortunately, we soon came to a small dry lake where we managed to get in front of him.

At 9:30 p.m., after four wearisome days, we arrived at Naran Bulak with no drops of water left. The flowing spring looked wonderful. All the other vehicles except for GAZ II arrived at virtually the same time. We relish the end of this improbable journey and the prospect of hunting fossils again tomorrow.

Today: 16 stops and 23 hands of gin rummy. Wallowing in water,

Priscilla

PS: GAZ II finally came in this morning with a happy-looking Ot at the wheel and film intact in the rear. The BBC crew was vastly relieved.

PPS: Benzema has been immobilized by the removal of the distributor rotor from the engine of the Benzene Machine. This is fine with all. The Benzene Machine has become our own gas station at Naran Bulak, and Benzema has put a big blue tarp over the broken windshield and taken up residence in the front seat.

Priscilla reports that during the 1992 expedition she and Malcolm had time to play the Gobi Tournament: 500 hands of gin rummy — a kind of "Waiting for Gobi Tournament." Priscilla won by two games and her prize was dinner with Malcolm at La Côte Basque after their return to New York.

## Discovery Tours Seminars



*Dame of the Rack, Jerusalem*

The American Museum invites its members to participate in a new kind of travel experience — seminar trips, which feature immersion into some of the world's richest and most fascinating cultures. Four seminar trips are scheduled for the winter and spring months of 1995; each is designed so that participants will learn in depth about one particular place or culture.

From February 22 to March 5 a seminar group will travel to Bali to study the complex culture of this fabled island. AMNH travelers discover Bali's artistic treasures by attending festivals and workshops and visiting with local artisans.

Another seminar trip, from March 3 to 19, will study the lifestyles of the Maasai, Hadza, Dorobo, and Iraqw peoples of Tanzania — their relationships with their surroundings and their place in the ecology of East Africa. Participants will also visit Olduvai Gorge, site of several famous fossil finds, and see the spectacular wildlife of the

Serengeti Plains.

In May two seminars will be offered: Israel, from April 29 to May 14, and Greece, from May 13 to 28. Both these countries are rich in archeological sites and ancient cities that illustrate long and fascinating histories. In Israel AMNH travelers will trace human history from the Paleolithic Age to the present through lectures, visits to major sites and cities, and trips into the desert and Dead Sea region. In Greece the seminar will concentrate on the country's history from the Bronze Age to the present with excursions to famous sites and rarely seen spots off the beaten track and in the heartland of modern Greece.

Prices (per person, double occupancy): Bali, \$3,395 (includes air); Tanzania, \$8,987 (includes air); Israel, \$5,500; Greece, \$4,150.

For more information, call Discovery Cruises/Tours at (800) 462-8687 or in New York State at (212) 769-5700, Monday through Friday, 9:00 a.m. to 5:00 p.m.

## 125 Years of Discovery

The Museum's 125th anniversary has inspired three new exhibitions of photographs and memorabilia.

The First 125 Years, in the Hall of Birds of the World, is a decade-by-decade survey of the Museum's growth that is illustrated by photographs and specimens.

People and Places, in the Akeley Gallery, is a display of photographs taken during Museum expeditions.

The World Explored: 125 Years of Collecting Photographs, in the Library Gallery, features highlights from the Museum's extensive collections of photographs and films.



Central African from the Central African Expedition of the 1920s, AMNH 110790

## Members' Birthday Parties at the Museum

Young Members can celebrate their birthdays in the Hall of Meteorites, Minerals, and Gems with the new theme party *The Dynamic Earth*. They'll take a hands-on approach to learn how scientists identify minerals, precious stones, and meteorites, and they'll go on a treasure hunt through the hall to discover its geological wonders.

The Membership Office sponsors other theme parties for Members between the

ages of 5 and 10 that focus on fossil mammals, dinosaurs, African mammals, reptiles and amphibians, ocean dwellers, and Native Americans. In addition to *The Dynamic Earth*, another new theme party offers party-goers a look at one of the Naturemax films — *Yellowstone or Africa: The Serengeti*.

The group should be no fewer than 10 and no more than 20. The fee is \$300 plus \$15 per child and covers all materials and the services of a

Museum party coordinator. The coordinator will help you plan a party that suits your child's tastes and will handle everything from candles to party favors. All you need to do is bring the cake and help escort the guests. Please note that the parties are available only to Members at the Contributor (\$100) and higher levels.

For more information about the children's birthday parties, which are two hours long, call (212) 769-5542.



## Naturemax

The new IMAX film *Africa: The Serengeti* explores the relationships between predator and prey by following the great migration of wildebeests, zebras, and other animals. Showtimes are 10:30 and 11:30 a.m. and 1:30 and 3:30 p.m. daily.

*Yellowstone* takes viewers on a journey to the national park to discover its history, geology, and wildlife. Showtimes are 12:30, 2:30, and 4:30 p.m.

On Friday and Saturday at 6:00 and 7:30 p.m., *Africa: The Serengeti* is shown on a double bill with *Yellowstone*. Schedules and prices are subject to change without notice. Call (212) 769-5650 for further information. See page 1 for details of the Members' evening at Naturemax.

**Admission** (Participating and Higher Members)  
Adults: \$4.75 single feature; \$6 double feature  
Children: \$2.25 single feature; \$3.25 double feature.

## Parking

The Museum's parking lot now offers expanded hours and revised rates. The parking lot, which is operated in conjunction with the Edison Hayden Corporation, is open every day from 7:00 a.m. till 11:30 p.m.

Rates for cars entering between 7:00 a.m. and 5:00 p.m. start at \$5 for up to a half-hour and advance by stages to a closing-time maximum of \$17. Cars entering between 5:00 p.m. and 11:30 p.m. are charged a minimum of \$5 and a maximum of \$7 on Sunday through Thursday and a maximum of \$12 on Friday and Saturday.

Buses are charged \$11 and are not admitted on weekends.

The parking lot has a capacity of 100 vehicles and is operated on a first-come, first-served basis. Hertz Manhattan, located one block away from the Museum at 210 West 77th Street (between Broadway and Amsterdam), offers parking discounts to Members: on Monday through Friday Members receive a \$2 discount off regular prices and on Saturday and Sunday they receive a \$3 discount.

Call the Membership Office at (212) 769-5606 for information about alternative parking.

## 125 YEARS OF EXPEDITION AND DISCOVERY WITH THE AMERICAN MUSEUM OF NATURAL HISTORY

1995 CALENDAR



## Expedition Calendar

This 1995 calendar commemorates the 125th anniversary of the American Museum. Images and anecdotes from spectacular expeditions — from the Gobi Desert to the North Pole, the Congo to the South Pacific — are featured, along with colorful and exotic artifacts, original drawings, and rare photographs. A special pull-out time line highlights the Museum's history.

The calendar measures 14½" x 10½" and costs \$10.95 each, plus \$2 shipping and handling per calendar. Use the coupon at right to order.

### Expedition Calendar

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Daytime telephone: \_\_\_\_\_

Total amount (include sales tax, if applicable): \_\_\_\_\_

Please make your check payable to the American Museum of Natural History and mail with coupon to: AMNH Expedition Calendar, Central Park West at 79th Street, New York, NY 10024-5192.

## Celebrate

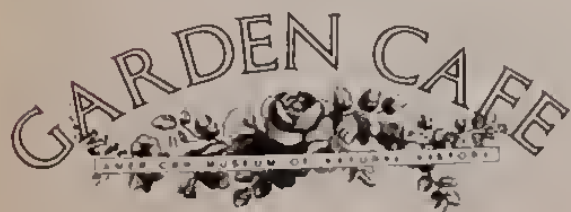
### The Royal Tombs of Sipán

With Peruvian Specialties at  
the Garden Cafe

Lunch, Mon. - Fri: 11:30 - 3:30

Weekend Brunch, Sat. - Sun: 11 - 4  
Dinner, Fri. - Sat: 5 - 7:30

Reservations suggested  
Call the Garden Cafe at 212-769-5865  
Located on the Lower Level



Our charming little shirt features a browsing Apatosaurus  
whose long tail winds around to the back.

Handmade batik on preshrunk and colorfast 100% cotton. Soft blue dinosaur  
on rich cobalt blue background

Please specify S (Toddler), M (3-4) or L (5-6).

To order, send \$21.00 for each (includes shipping and handling within US) to

Members' Choice Collection  
American Museum of Natural History  
Central Park West at 79th Street  
New York, New York 10024

For Mastercard/Visa orders, please call 212-769-5530

### A Global Expedition

## World Tour 2

Saturdays, December 17  
and January 7  
6:30 p.m.

The Volunteer Office's second annual *World Tour* will focus on the Museum's exciting heritage of world exploration. Over the past 125 years this institution has sent representatives to every corner of the globe, and the *World Tour* will retrace the steps of some of the explorers and scientists to look at exhibits that reflect the achievements of these expeditions.

The free tour begins in the second-floor Roosevelt Rotunda. Registration is required, and tours are limited to 35 individuals. Call the Volunteer Office at (212) 769-5566 to register. Tour leader: Robert Campanile. World guides: Jenny Gillis, Georg Letteris, Phil Sollecito.



# Courses for Stargazers



Eighteenth-century observatory at Jaipur, India

## ASTRONOMY: BASIC COURSES Introduction to Astronomy

Eight Thursdays, beginning  
Jan. 12; 6:30-8:40 p.m.  
\$85.50 for Members  
\$95 for non-Members

A first course in astronomy, designed to introduce the many interesting aspects of the universe to those without a math or physics background. Topics include earth as a planet, the moon, the solar system, the stars, the Milky Way, galaxies, quasars, and black holes. Common observations such as planet motions and the rising and setting of the sun and moon are explained. No previous knowledge of astronomy is assumed. This course serves as a prerequisite for the intermediate-level courses, where specific areas are covered in more detail. Instructor: Francine Jackson.

## Stars, Constellations, and Legends

Five Tuesdays, beginning  
Jan. 10; 6:30-8:10 p.m.  
\$72 for Members  
\$80 for non-Members

The lore of the sky is introduced with the Sky Theater's Zeiss projector, which will identify the prominent stars, constellations, and other sky objects of both Northern and Southern Hemispheres. The myths and legends of many cultures relating to the sky, as well as galaxies, star clusters, and nebulae found among the constellations, are illustrated. No prerequisites. Instructor: Steven Beyer.

## Life Beyond the Earth: The Search for Life in the Cosmos

Eight Mondays, beginning  
Jan. 9; 6:30-8:40 p.m.  
\$85.50 for Members  
\$95 for non-Members

The reasons that many scientists believe there is intelligent life elsewhere in the universe are explored in this course. Topics include stellar evolution, theories of planet formation and development, origin of life, intelligence, problems of communications, and current investigations. Instructor: Sam Storch.

## Adventures in Astronomy

Five Saturdays, beginning  
Jan. 14; 9:40-11:40 a.m.  
\$67.50 for Members  
\$75 for non-Members

Confused about the difference between a star and a planet? Can't tell astronomy from astrology? Don't know Aquarius from Sagittarius or a black hole from a brown dwarf? Join us for a Saturday course for the whole family (ages 10 and up). In the Sky Theater and in labs with astronomical equipment we will explore the birth and death of stars, the origin of life in the universe, the search for extraterrestrial life, and the current night sky. The first hour meets in the Sky Theater and the second hour in Classroom 1. Instructor: Craig Small.

## Celestial Highlights

Four selected Mondays: Jan. 23, Feb. 27, March 20, April 24; 6:30-7:40 p.m.  
\$36 for Members  
\$40 for non-Members

This course will focus on the interesting and exciting events in the skies of the coming month. The night sky will be accurately simulated by the Zeiss projector in the Sky Theater, and students will learn how to find prominent constellations of the season and where and when to see gatherings of the moon and planets. The Planetarium's extensive collection of special effects will illustrate upcoming celestial events, including meteor showers and eclipses. Students will also learn about current space missions and how to find nebulae, star clusters, and galaxies that are visible through binoculars or small telescopes. Instructors: Joe Rao and Henry J. Bartol.

## ASTRONOMY: INTERMEDIATE COURSES

### From Copernicus to Einstein

Six Wednesdays, beginning  
Jan. 11; 6:30-8:40 p.m.  
\$76.50 for Members  
\$85 for non-Members

This survey course examines four of the great scientific ideas that revolutionized astronomy and physics: the mechanical certainty of

Copernicus's astronomy; Galileo's physics and astronomy; Newton's physics; and Einstein's relativity of time and space. Nonmathematical presentations of each theory will offer historical and schematic insights into the ways in which these profound ideas have affected the definition of reality. No formal training in physics or math is required. Instructor: William Dorsey.

## Cosmology: The Big Picture

Four Thursdays, beginning  
Jan. 12; 6:30-8:40 p.m.  
\$67.50 for Members  
\$75 for non-Members

This course will briefly review the natural history of the physical universe, from quarks to galaxies, as revealed by contemporary astronomy and high-energy physics. Topics will include the inflationary Big Bang, elemental nucleosynthesis, the three-degree background radiation, cold dark matter, and the future of the cosmos. Discussions will consider the historical and philosophical context for modern cosmology along with the latest results from the COBE satellite and the Hubble Space Telescope. Instructor: Michael Allison.

## The Invisible Universe

Five Wednesdays, beginning  
Jan. 18; 6:30-8:10 p.m.  
\$72 for Members  
\$80 for non-Members

Beyond what the eye and modern optical telescopes can see lies a vast invisible universe — the universe of radio waves, infrared, ultraviolet, X-rays, and more. Using giant dish-shaped antennas continents apart as well as earth-orbiting satellites, astronomers are painting bizarre and fascinating portraits of planets, stars, and galaxies. In this course we'll use the latest images available to explore the invisible universe and see how such views complement and enrich our vision of the cosmos. Instructor: William Gutsch.

## METEOROLOGY Weather Analysis and Prediction

Six Mondays, beginning  
Jan. 9; 6:30-8:40 p.m.  
\$76.50 for Members  
\$85 for non-Members

Maps and forecasts similar to those seen on television and in newspapers are explored in this hands-on course, in which students learn to analyze air masses, fronts, and circulations. The jet stream, upper atmosphere, and various means of weather prediction will be examined, and topics will range from modern computer-generated forecast models to the timeless art of reading the sky. No formal training in physics or math is required. Instructor: Barry Grossman.

## SCIENCE FICTION Science Fiction and Contemporary Society

Four Tuesdays, beginning  
Jan. 10; 6:30-8:40 p.m.  
\$67.50 for Members  
\$75 for non-Members

How do science fiction's imaginative visions reflect our own world? What methods do authors of fantastic texts use to minor real-world contexts? This course will address these questions by focusing on science fiction's familiar classic writers (Asimov and Clarke), the revolutionary creators of the New Wave (Delaney and LeGuin), and exciting new voices (Butler and Tepper). Students will explore what science fiction has to say about social fact. Instructor: Marleen Barr is a pioneer in the study of women and science fiction. A reading list will be distributed at the first meeting.

## NAVIGATION: BASIC COURSE Navigation in Coastal Waters

Eight Tuesdays, beginning  
Jan. 10; 6:30-9:00 p.m.  
\$99 for Members  
\$110 for non-Members

An introduction to piloting and dead reckoning for present and prospective owners of small boats. The course provides practical chartwork and includes such topics as the compass, bearings, fixes, buoys and lighthouses, the running fix, current vectors and tides, and rules of the nautical road. Boating safety is emphasized. No prerequisites. Students are required to purchase an equipment kit. Instructor: Greg Smith.

## NAVIGATION: INTERMEDIATE COURSES

### Trouble Shooting Celestial Navigation

Four Tuesdays, beginning  
Jan. 10 or Feb. 7;  
6:30-8:40 p.m.  
\$67.50 for Members  
\$75 for non-Members

This short course is designed for students who are self-taught or otherwise familiar with techniques for navigating by the stars but in need of some practice. Sessions will include a review of the basic theory, use of Volume 1 HO 249, the Rude Star Finder and Nautical Almanac for pre-calculations of star sights; review of star sights, moon shots, planet shots, and plotting; and use of celestial computers, sextants, and shooting techniques. No text is required; handouts will be provided. This course will be offered twice each term. Instructor: David Berson.

### Introduction to Celestial Navigation

Ten Mondays, beginning  
Jan. 9; 6:30-8:40 p.m.  
\$99 for Members  
\$110 for non-Members

This intermediate course is for those who have completed *Navigation in Coastal Waters* or who have equivalent piloting experience. The course covers the theory and practice of celestial navigation, the sextant and its use, and the complete solution for a line of position. Problem solving and chartwork are emphasized. Students are required to purchase a copy of *Sight-Reduction Tables for Marine Navigation, Volume 3* (Pub. No. 229). Instructor: Greg Smith.

## Courses for Stargazers

I would like to register for the following Planetarium courses(s):

Name of course: \_\_\_\_\_

Price: \_\_\_\_\_ (Please note that discount prices apply only to Participating and Higher Members.)

Class beginning: \_\_\_\_\_

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Daytime telephone: \_\_\_\_\_

Membership category: \_\_\_\_\_

Please mail this coupon with your check payable to the American Museum-Hayden Planetarium to: Courses for Stargazers, Hayden Planetarium, Central Park West at 81st Street, New York, NY 10024-5192. Registration by mail is strongly recommended and is accepted until seven days preceding the first class. For additional information, call (212) 769-5900, Monday-Friday, 9:30 a.m.-5:30 p.m. **No credit cards accepted. Do not include ticket requests or checks for American Museum programs.**



# Museum Notes

## Hours

Exhibition Halls  
 Mon.-Thurs. & Sun. .... 10:00 a.m.-5:45 p.m.  
 Fri. & Sat. .... 10:00 a.m.-8:45 p.m.  
 The Museum Shop  
 Mon.-Thurs. & Sun. .... 10:00 a.m.-5:45 p.m.  
 Fri. & Sat. .... 10:00 a.m.-7:45 p.m.  
 The Junior Shop  
 Mon.-Fri. .... 10:00 a.m.-4:45 p.m.  
 Sat. & Sun. .... 10:00 a.m.-5:45 p.m.  
 The Museum Library  
 Tues.-Fri. .... 11:00 a.m.-4:00 p.m.  
 The Natural Science Center  
*For children of all ages and their families.*  
 Closed on Mondays and holidays.  
 Tues.-Fri. .... 2:00-4:30 p.m.  
 Sat. & Sun. .... 1:00-4:30 p.m.  
 The Discovery Room  
*Passes are distributed at the first-floor information desk beginning at 11:45 a.m. Ages 5-15. Children must be accompanied by an adult.*  
 Closed on holidays and weekdays.  
 Sat. & Sun. .... Noon-4:30 p.m.

## Museum Dining

Diner Saurus Fast Service Eatery  
 Daily .... 11:00 a.m.-4:45 p.m.  
 Garden Cafe  
 Reservations: (212) 769-5865  
 Lunch: Mon.-Fri. .... 11:30 a.m.-3:30 p.m.  
 Dinner: Fri. & Sat. .... 5:00-7:30 p.m.  
 Brunch: Sat. & Sun. .... 11:00 a.m.-4:00 p.m.  
 Whale's Lair  
 Fri. .... 3:00-8:00 p.m.  
 Sat. .... Noon-8:00 p.m.  
 Sun. & most holidays .... Noon-5:00 p.m.  
 Snack Carts  
 Sat. & Sun. .... 11:00 a.m.-4:00 p.m.

## Entrances

During Museum hours visitors can enter the building through the 77th Street entrance, the parking lot entrance (81st Street), or the Roosevelt Memorial Hall entrance (79th Street and Central Park West). **Visitors attending programs after hours can enter the building at 79th Street and Central Park West.**

## Phone Numbers

Museum information ..... (212) 769-5100  
 Membership information  
*(for questions about Museum events)* ..... (212) 769-5606  
 Participating Members' Customer Service  
*(for questions and problems related to Rotunda and Natural History magazine — missed issues, address changes, and other information)* ..... (800) 283-AMNH  
 Planetarium information ..... (212) 769-5900  
 Education Department ..... (212) 769-5310  
 Discovery Tours ..... (212) 769-5700  
 ..... toll-free outside NY State: (800) 462-8687  
 Naturemax ..... (212) 769-5650  
 Development/Public Affairs ..... (212) 769-5270  
 Volunteer Office ..... (212) 769-5566  
 Museum Shop ..... (212) 769-5150  
 Library Services ..... (212) 769-5400  
 Natural History magazine ..... (212) 769-5500  
 Members' Book Program ..... (212) 769-5500  
 Members' Birthday Parties ..... (212) 769-5542

## Happenings at the Hayden

### Eleventh Annual Holiday Concert

#### A Midwinter Night's Dream

On Wednesday, December 14, and Thursday, December 15, at 7:30 p.m., the world-famous Ensemble for Early Music returns to the Planetarium's Sky Theater for a medieval celebration of the holiday season. Enjoy the music of the royal courts of Europe while the wizardry of the Planetarium's special effects transports you through a wonderful variety of environments, from castles bathed in moonlight to a cozy fireplace at an ancient inn to a pine forest under a brilliantly starry sky.

Participating and Higher Members are entitled to four tickets at \$18 each. Additional tickets may be purchased at the non-Members' price of \$20 each. Use the coupon at right to register, and for further information call (212) 769-5900.

## Lectures

### Frontiers in Astronomy and Astrophysics

On Monday, December 5, at 7:30 p.m., Michio Kaku, professor of theoretical physics at the City University of New York, will present an illustrated talk, "Parallel Universes, Time Warps, and the Tenth Dimension." Kaku will discuss one proposed theory that explains all of the forces in the universe — time travel, what came before the Big Bang, and what is beyond the universe.

This lecture is part of the *Frontiers in Astronomy and Astrophysics* series. Tickets are \$6 for Participating and Higher Members and \$8 for non-Members. For information about ticket availability and upcoming lectures, call (212) 769-5900.

## Exhibition

### The Universe Revealed: Recent Images from the Hubble Space Telescope

This exhibition features photographs of recent discoveries made by the Hubble Space Telescope, including the M87 galaxy (which proves the existence of black holes) and images of the Shoemaker-Levy 9 comet strikes on Jupiter. A 1/15 scale model of the Space Shuttle Orbiter deploying the Hubble is on display, along with a scale model of the Optical Telescope Assembly of the Hubble Space Telescope and a 45-minute video of the repair mission of December 1993.

## Sky Shows

### Star of Christmas Through January 1

At this holiday program viewers gaze out on a clear winter's night and travel back nearly 2,000 years to explore the skies of the first Christmas. Just what led the Wise Men to Bethlehem? Was it a special star that no one else had seen before? A comet? Or something else? Join us for this special holiday tradition.

### Update: The Universe

New discoveries from space are made on a daily basis, including information about black holes, new planets, and colliding galaxies. This fast-paced Sky Show, which uses a "news magazine" presentation, brings viewers up to date on all the latest astronomical discoveries.

In the past three years telescopes such as the Compton Gamma Ray Observatory, the European ROSAT, and the recently overhauled Hubble Space Telescope have been exploring the universe from space. At the same time, giant earth-bound telescopes scan the heavens, searching for signs of intelligent life in our galaxy. *Update: The Universe* explores cutting-edge research from the quest for extraterrestrial life to studies that peel back time in search of the dawn of creation.

Admission (Participating and Higher Members)  
 Adults: \$4  
 Children (2-12): \$2

Call (212) 769-5100 for show schedule and non-Members' prices. Please note that prices are subject to change without prior notice. The Hayden Planetarium is closed on Christmas day.

### Children's Shows

*Wonderful Sky* is a special Sky Show for preschoolers. Children sing along with images of their favorite Sesame Street Muppets as they learn about rainbows, the phases of the moon, sunsets, and stars. Sat., Dec. 3, at 10:30 and 11:45 a.m., and Sat., Jan. 7, at 10:30 a.m. Admission for Participating and Higher Members is \$4 for adults and \$2 for children. Members can purchase up to four tickets at the Members' price.

Shows usually sell out in advance; reservations, by mail only, are necessary. Make your check payable to the Hayden Planetarium (attn: Wonderful Sky, Central Park West at 81st Street, New York, NY 10024-5192); indicate membership category and a first and second choice of showtimes. Be sure to include a self-addressed, stamped envelope and your daytime telephone number. For additional information call (212) 769-5900.

*Robots in Space* features Lucasfilm's R2D2 and C-3PO and has been created especially for children ages 7 to 12. Together with a live host, these famous space robots take children on a tour of the universe. See how satellites and probes — the real space robots — help us learn about worlds near and far. Journey from the earth to other planets and distant black holes. Sat., Jan. 7, at 11:45 a.m. Admission for Participating and Higher Members is \$4 for adults and \$2 for children. For information, call (212) 769-5900.

## Laser Shows

Journey into another dimension where laser visuals and rock music combine to create a dazzling 3-D experience of sight and sound. Shows are presented on Fridays and Saturdays at 7:00, 8:30, and 10:00 p.m. For prices and show schedule, telephone (212) 769-5100.

**It's always a good idea to call before visiting the Planetarium, since prices, programs, and showtimes are subject to change without notice. For general Planetarium information, call (212) 769-5100.**

**Holiday Concert.** Please indicate a first and second choice of times.

\_\_\_ Wed., Dec 14 \_\_\_ Thurs., Dec 15  
 Number of Members' tickets at \$18: \_\_\_  
 Number of non-Members' tickets at \$20: \_\_\_  
 Total amount enclosed for program: \_\_\_

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Daytime telephone: \_\_\_\_\_

Membership category: \_\_\_\_\_

Please make check payable to the Hayden Planetarium and mail with a **self-addressed, stamped envelope** to: Concert, Hayden Planetarium, Central Park West at 81st Street, New York, NY 10024-5192.

Please note that ticket orders are subject to availability and cannot be processed without telephone number and stamped, self-addressed envelope. **Do not include ticket requests or checks for American Museum programs.**



Sun

Mon

Tue

Wed

Thu

Fri

Sat

# December 1994 American Museum of Natural History



**4** World Celebrations at the Leonhardt People Center. Page 5.

**5** 7:30 p.m. Frontiers in Astronomy and Astrophysics. Speaker, Michio Kaku: "Parallel Universes, Time Warps, and the Tenth Dimension." Sky Theater. \$6 for Members. \$8 for non-Members. Page 11.

**6** 1:00, 3:00, and 4:00 p.m. Precolumbian Gold. Members' guided tour at the Metropolitan Museum of Art. \$18, and open only to Participating and Higher Members. Tickets required. Page 2.

**7** 7:30 p.m. Amateur Astronomers Association of NYC. Speaker, Dr. Mike Allison, Goddard Space Center: "Saturn and Titan: Atmospheric Dynamic." Kaufmann Theater. Free.

**8** 7:00 p.m. Geology of the Planets. Members' evening program, part 1. Kaufmann Theater. \$15 for Members. \$20 for non-Members. Page 2.

**9**

**10** World Celebrations at the Leonhardt People Center. Page 5.

## Temporary Closings

While the Museum is getting ready for an exciting new program for visitors, two exhibition halls will close temporarily. The Hall of Oceanic Birds, on the second floor, is already closed, and the Hall of Asian Mammals will close on December 12. Both halls will reopen in January.

**11** 10:30 and 11:30 a.m., 12:00 and 3:00 p.m.

Origami Holiday Workshops. Members' family program. \$3 materials fee per person, and open only to Participating and Higher Members. Page 2.

**2:00 p.m.** NY Shell Club. Room 319. Free.

World Celebrations at the Leonhardt People Center.

**18** 10:30 a.m. and 1:30 p.m.

Make a Holiday Gingerbread House. Members' family program. \$30 per couple, and open only to Participating and Higher Members. Tickets required. Page 2.

**2:00 p.m.** NY Paleontological Society. Room 319. Free. World Celebrations at the Leonhardt People Center. Page 5.

**25** Christmas. The Museum is closed.

**12**

**13** 7:30 p.m. The Linnaean Society of NY. Speaker: Kenneth Able. SUNY-Albany: "Some Pieces of the Bird Migration Puzzle." Linder Theater. Free.

**14** 7:30 p.m. A Midwinter Night's Dream. Holiday concert at the Planetarium. \$18 for Members. \$20 for non-Members. Page 11.

**15** 7:00 p.m. Geology of the Planets. Members' evening program, part 2. Kaufmann Theater. \$15 for Members. \$20 for non-Members. Page 2.

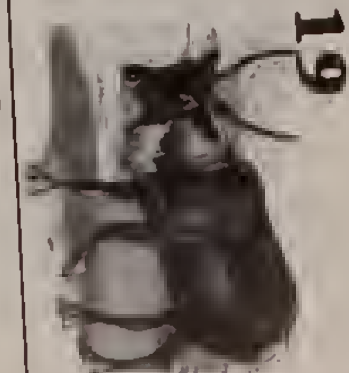
**16**

**7:30 p.m.** A Midwinter Night's Dream. Holiday concert at the Planetarium. \$18 for Members. \$20 for non-Members. Page 11.

**21** 7:00 p.m. Africa: The Serengeti and Yellowstone. Members' private viewing at the Naturemax Theater. \$6, and open only to Participating and Higher Members. Page 1.

**22**

**21** 7:00 p.m. Africa: The Serengeti and Yellowstone. Members' private viewing at the Naturemax Theater. \$6, and open only to Participating and Higher Members. Page 1.



**27** No meeting of the Linnaean Society.

**28**

**29** 1:00 and 3:00 p.m. Toyland Express. Members' family program. Kaufmann Theater. \$7 for Members. \$10 for non-Members. Page 2.

**30** Noon-5:00 p.m. Kwanzaa Celebration: African Marketplace. Page 5.

## Special Children's Memberships

We are pleased to announce a new membership benefit for members at the Supporter (\$250) and higher levels. Supporting and higher members can receive up to two complimentary children's memberships. Children will

receive a special membership card as well as an annual Museum publication mailed to them at home.

This program, designed for children ages 12 and under, also puts participants on the mailing list for invitations to the

Museum's annual Family Party.

If you are already a Supporting or higher-level Member — or if you want to upgrade your membership to the \$250+ level — and would like information regarding the children's membership benefits, please call Sandra Spillman at (212) 769-5154.

## See the Tree

The Origami Holiday Tree is on display in the first-floor Rotunda, in honor of the Museum's 125th anniversary the tree features all-new, freshly folded origami creatures and objects inspired by Museum exhibits. The models,

which range from mollusks to zebras and from butterflies to dinosaurs, were folded by members of Origami USA. The tree is also graced by a garland of 2,000 origami stars.

This year's tree also honors the memory of Alice Gray, who died earlier this year. A member of the Department of Entomology for several years, Miss Gray was a guiding light behind the establishment of the origami tree and remains a vibrant presence in the hearts of her many friends.

Don't miss the tree, and be sure to visit the nearby teaching table, where volunteers will be on hand during Museum hours to show visitors how to fold their own origami models.



# ROTUNDA

For Participating and Higher Members of the American Museum of Natural History

Vol. 20, No. 2 February 1995



## Images of Power

### Balinese Paintings Made for Gregory Bateson and Margaret Mead

On display in Gallery 77  
from February 3 through May 3  
Members' Preview: Thursday, February 2,  
6:00-9:00 p.m.

In the course of their fieldwork in Bali during the 1930s anthropologists Margaret Mead and Gregory Bateson collected hundreds of paintings and sketches by local artists. These paintings are strikingly different from traditional Balinese art forms and reveal much about Bali that was previously unknown to Westerners.

One hundred such paintings will be on display at the Museum, and Members can attend a preview of the exhibition and a related program.

The Europeans who initiated the new art encouraged the Balinese

artists to paint scenes from their everyday life. The Balinese consider the visible world only a minor aspect of reality, so many of the artists created imaginative portrayals of their unseen world through images from folk tales, myths, and dramas.

#### Members' Preview

On Thursday, February 2, Participating and Higher Members can attend a preview of *Images of Power* from 6:00 to 9:00 p.m. No tickets are necessary for the preview; your valid membership

card will admit you and a guest.

A related Members' program, *Artists and Anthropologists*, will take place on the evening of the preview. The exhibition's curator, Mildred Geertz, will describe the personalities and events involved in the creation of the pictures on display.

Geertz will discuss the ways in which young Balinese peasant artists learned new painting techniques from Western artists living in Bali. She'll also explore the role that Margaret Mead and Gregory Bateson played in persuading the painters to allow their

*"A Fight with a Demon in the Rice Fields,"*  
by I. Reneh, a skilled shadow-puppet maker.  
This 1936 picture portrays a demon hitting a  
man's leg while other men attack it with  
farming tools.

works to be collected.

A professor of anthropology at Princeton University, Geertz lived for two years in the village where the paintings were made. She came to know some of the artists 50 years after their encounters with Mead and Bateson, and she'll describe her relationships with them.

The program will take place at 7:00 p.m. in the Kaufmann Theater. Tickets are \$8 for Members and \$12 for non-Members. Call the Membership Office at (212) 769-5606 for information about ticket availability.





Farmers of the grasslands,  
Hall of African Peoples

## Epic Fragments: A Museum Odyssey

Eight Fridays, starting February 3  
6:30-8:30 p.m.  
Free, and open only to Participating  
and Higher Members  
SOLD OUT from previous issue

Volunteer Highlights Tour guide Robert Campanile will take Members on a 16-hour odyssey that will explore the Museum from top to bottom. The two-hour tours, which will take place twice a month,

will run for a total of eight evenings starting in February and concluding in June. Members who complete all of the tours will be presented with a Certificate of Odyssey Completion.

Tours will take place on Friday evenings on the following dates: February 3 and 24, March 10 and 24, April 7 and 28, May 19, and June 2. Registration is limited to 35 participants.

## Fire in the Snow

Saturday,  
February 25  
1:30 and 3:30 p.m.  
Kaufmann Theater  
\$7 for Members,  
\$10 for non-Members  
Ages 5-10

Eight energetic actors and a dynamic percussionist will enchant Members of all ages with their unusual combination of ensemble technique, mime, and storytelling. The ever-popular Shoestring Players will return next month with an all-new quartet of international folktales: "Half a

Kingdom," an adventure from Iceland; "The Lass Who Went Out with the Cry of Dawn," an Irish comedy; "The Fire Bringer," a Native American drama; and "Severi and Vappu," a comedy from Finland.

The Shoestring style is minimalist, using only a bare stage and a few props and relying mostly on their ability to excite the audience's imagination. The actors fill the empty stage with the essence of forests, oceans, deserts, and mountains while the audience colors in the details. The troupe believes that a sense of wonder is at the very heart of being alive and that the individual mind — child or adult — is its own universe of creativity.

Use the coupon on page 3 to register.



The Shoestring Players

## Members' Subterranean Tour

## The Art of the IRT

Tuesday, February 7  
6:00-8:30 p.m.  
\$30 per person, and open only  
to Participating and Higher Members  
Ages 16 and up  
SOLD OUT from previous issue

Members can get better acquainted with the subway system's history and design at the *Members' Subterranean Tour*, which will feature an exploration of an abandoned downtown station.

The tour begins with an illustrated lecture at the New York Transit Museum on the history of the design and ornamentation of the city's subway stations. Afterward, participants will walk to the Borough Hall station and take the Number 4 or 5 train to the Brooklyn Bridge station. They'll board a train there that will enter the loop of the

abandoned City Hall station, where trains turn around.

Members can linger at the old City Hall station, which was built in 1904 as the first of the IRT stations. Designed by the architectural firms of Heins and LaFarge, it's embellished in the turn-of-the-century style of the City Beautiful movement.

The tours will be hosted by John Tauranac, an urban and architectural historian who designed the official map for the Transit Authority. He has designed many other maps, including the subway system's first multilingual map.

## Members' Adult-Child Workshop

## From the Heart

Sunday, February 5  
10:30 a.m. and 1:30 p.m.  
\$26 per couple, and open only to  
Participating and Higher Members  
Ages 5 and up

Create a valentine — or dozens — for your nearest and dearest friends and family. June Myles will show you and your child some easy techniques for the creation of high-tech cards that pop up, fold, move, and form puzzles.

Participants will also learn some lovely old-fashioned

methods for valentine making that are sure to win a heart or two. The valentine patterns will include flowers, birds, dinosaurs, reptiles, and (of course) hearts.

Use the coupon on page 5 to register for the 90-minute workshops. Tickets are available only by mail.

## ROTUNDA

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# Whales of Ancient Tethys

Thursday, February 9  
7:00 p.m.  
Kaufmann Theater  
\$8 for Members, \$12 for non-Members

A century ago geologists took the name of a Greek sea goddess and bestowed it upon an ancient sea that once divided the earth's great northern and southern continents. Today's Mediterranean is a shadow of what Tethys must have been. Stretching from what is now Spain to Indonesia, Tethys was an ocean when trilobites and other early forms of life flourished, and it lasted more than 500 million years — through the Age of Dinosaurs and into the

Age of Mammals, until its obliteration by the shifting of continental plates.

Three hundred million years after vertebrates first colonized land, some mammals reversed their pattern and returned to Tethys. Today their descendants — toothed porpoises and dolphins and the toothed and baleen whales that make up the order Cetacea — have adapted fully to life in water. Their advanced cetacean features were acquired gradu-

ally, but the prototype was a land mammal living on the shores of Tethys.

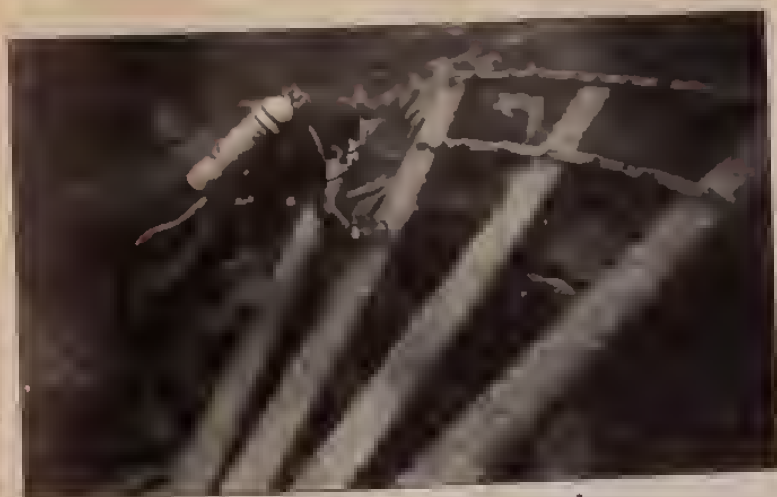
Paleontologist Philip Gingerich will discuss his findings from the world's most productive whale graveyards, including the first specimen of a whale with functional legs and toes. A professor of geological sciences of the University of Michigan, Gingerich is director of the university's Museum of Paleontology.

Use the coupon on this page to register.

# Underwater Archeology

## From Projectile Points to Atom Bombs

Thursday, February 16  
7:00 p.m.  
Kaufmann Theater  
\$8 for Members, \$12 for non-Members



Diver-archeologist approaches segment of a paddlewheel



A scientific illustrator sketches on an underwater slate

More than 2,400 Navy and other military and civilian personnel were killed in the infamous 1941 attack on Pearl Harbor. Nineteen ships sank or were put out of action, including the USS Arizona. National Park Service archeologist Daniel J. Lenihan, who was asked to survey the sunken Arizona, was intrigued by the challenge of diving in murky waters to map a ship three times the size of the Statue of Liberty.

Lenihan will talk with Members about his underwater experiences at Pearl Harbor and other explorations he has undertaken as chief of the National Park Service's Submerged Cultural Resources Unit. The unit consists of diving archeologists, artists, and rangers who promote the preservation of historic shipwrecks and other underwater archeological sites, ranging from prehistory to modern times.

In addition to his research in Pearl Harbor, Lenihan has also completed a survey of various ships that were sunk at Bikini during the atom bomb tests of 1946, including the Nagato, the flagship of the Japanese Navy during the attack on Pearl Harbor. He'll also talk about his explorations of shipwrecks of the Great Lakes.

Use the coupon on this page to register.

# February Members' Programs Coupon

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Daytime telephone: \_\_\_\_\_

Membership category: \_\_\_\_\_

Total amount enclosed: \_\_\_\_\_

Please make check (if applicable) payable to the American Museum of Natural History and mail with a **self-addressed, stamped envelope** to: February Members' Programs, Membership Office, American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192. **Telephone reservations are not accepted. No refunds or exchanges.**

**Unless otherwise indicated, no more than eight tickets may be ordered for a program. Participating Members are entitled to four tickets per program at the Members' price. Higher Members are entitled to six tickets, and Associate Members are entitled to one ticket.**

## Whales of Ancient Tethys

Thursday, February 9, 7:00 p.m.

Number of Members' tickets at \$8: \_\_\_\_\_

Number of additional tickets at \$12: \_\_\_\_\_

Total amount enclosed for program: \_\_\_\_\_

## Underwater Archeology

Thursday, February 16, 7:00 p.m.

Number of Members' tickets at \$8: \_\_\_\_\_

Number of additional tickets at \$12: \_\_\_\_\_

Total amount enclosed for program: \_\_\_\_\_

## Endangered Heritage: Jewish Cemeteries and Synagogues in Poland

Thursday, February 23, 7:00 p.m.

Number of Members' tickets at \$8: \_\_\_\_\_

Number of additional tickets at \$12: \_\_\_\_\_

Total amount enclosed for program: \_\_\_\_\_

## Shoestring Players: Fire in the Snow

Saturday, February 25. Please indicate a first and second choice.

\_\_\_\_\_ 1:30 p.m. \_\_\_\_\_ 3:30 p.m.

Number of Members' tickets at \$7: \_\_\_\_\_

Number of additional tickets at \$10: \_\_\_\_\_

Total amount enclosed for program: \_\_\_\_\_

## Clarence S. Bement: The Consummate Collector

Wednesday, March 8, 7:00 p.m.

Number of Members' tickets at \$6: \_\_\_\_\_

Number of additional tickets at \$9: \_\_\_\_\_

Total amount enclosed for program: \_\_\_\_\_

## City Animals: Fact and Myth

Saturday, March 11. Please indicate a first and second choice.

\_\_\_\_\_ 11:30 a.m. \_\_\_\_\_ 1:30 p.m.

Number of Members' tickets at \$5: \_\_\_\_\_

Number of additional tickets at \$8: \_\_\_\_\_

Total amount enclosed for program: \_\_\_\_\_

## Charlotte's Web

Saturday, March 18, 10:30 a.m.

Number of Members' tickets at \$5: \_\_\_\_\_

Number of additional tickets at \$8: \_\_\_\_\_

Total amount enclosed for program: \_\_\_\_\_

## About the Jews of India: Shanwar Telis

or Bene Israel. Wednesday, March 22, 7:00 p.m.

Number of Members' tickets at \$7: \_\_\_\_\_

Number of additional tickets at \$10: \_\_\_\_\_

Total amount enclosed for program: \_\_\_\_\_

## Mankiller

Tuesday, March 28, 7:00 p.m.

Number of Members' tickets at \$18: \_\_\_\_\_

Number of additional tickets at \$25: \_\_\_\_\_

Total amount enclosed for program: \_\_\_\_\_

## Members' Guided Tours of Spiders!

Friday, March 31. Please indicate a first, second, and third choice.

\_\_\_\_\_ 6:00 p.m. \_\_\_\_\_ 6:30 p.m. \_\_\_\_\_ 7:00 p.m. \_\_\_\_\_ 7:30 p.m.

Number of free Members' tickets (no more than 2, please): \_\_\_\_\_

**NOTE: Orders received less than ten days before show dates will be held for pick-up at the door on the day of the program if tickets are still available. If an event is sold out, you will be advised in writing or by phone and your check will be returned.**



## About the Jews of India: Shanwar Telis or Bene Israel

Wednesday, March 22

7:00 p.m.

Main Auditorium

\$7 for Members, \$10 for non-Members

About the Jews of India: *Shanwar Telis or Bene Israel* portrays the Jewish community of Bombay. When the film was completed in 1978, the community numbered about 6,000 — one-quarter of its original size. Most of these Indian Jews migrated to Israel, not to avoid persecution but on religious grounds. The tolerance with which Jews have been treated in India distinguishes them from all other diaspora communities.

The Jews of this region lived in small enclaves in the villages around Bombay, working primarily as producers and sellers of palm oil. Their Marathi name, Shanwar Telis ("Saturday oil pressers"), indicates that they refrained from selling oil on the Sabbath. In addition to keeping the Sabbath, this group maintained the Jewish New Year, the Day of Atonement, Passover, the Feast of Ingathering, and Purim as well as strict laws of marriage and divorce. In the 1800s, when British rule brought prosperity to Bombay, many of the Shanwar Telis moved to the city. They encountered for the first time Jews from other communities, and as they learned Sephardic Jewish ritual their lives came to resemble those of other diaspora communities: they built synagogues, translated religious texts into local dialects, and started religious schools and other institutions.

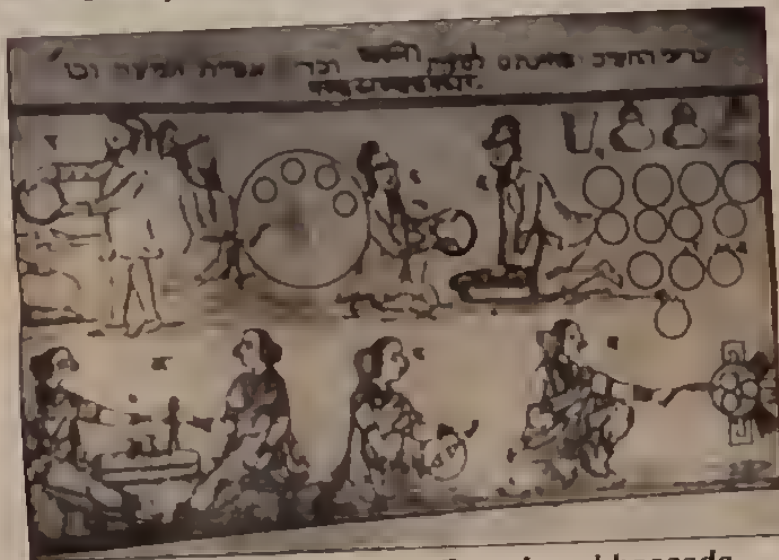
Filmmaker Johanna Spector will introduce the 40-minute film and answer questions after its screening. This program is two hours long and the third in a series

of Spector's ethnographic films. An upcoming feature will profile the Jews of Yemen.

Use the coupon on page 3 to register for the program.



Grandfather teaching the tarah in Bambah



Matzah baking from the Bene Israel haggada

## Mankiller: A Chief and Her People

Tuesday, March 28

7:00 p.m.

Main Auditorium

\$18 for Members,

\$25 for non-Members



Wilma Mankiller

When Wilma Mankiller was 10 years old her family left the Cherokee reservation in Oklahoma for a new life in San Francisco. Some 20 years later, Mankiller returned to her ancestral home to become principal chief of the Cherokee Nation — the first woman elected to this position. An activist for American Indian causes, Mankiller has been instrumental in raising the quality of life for her people. Next month she'll talk with Members about her philosophy of community self-help.

Mankiller began working for the Cherokee Nation in 1977, upon her return to Oklahoma. She founded the Community Development Department and obtained funds for many Cherokee-run programs and social services, including several new clinics, day-care programs, and many other projects. She has doubled revenue, services, and employment during the past

ten years.

The Bell Community project, which involved the laying of a 16-mile water line and the rehabilitation of several homes, established Mankiller's national reputation as an expert in community development. The project is a model not only for other Indian tribes but also for any rural community in need of development.

The basis of Mankiller's philosophy is empowerment of the people at the local level. She strongly encourages the tribe to become more self-reliant; in addition, she devotes much of her time and energy to promoting state and congressional legislation that protects American Indian concerns.

After the 45-minute lecture Mankiller will sign copies of her book, *Mankiller: A Chief and Her People*, which will be available for purchase at the program. Use the coupon on page 3 to register.

## Endangered Heritage

### Jewish Cemeteries and Synagogues in Poland

Thursday, February 23

7:00 p.m.

Kaufmann Theater

\$8 for Members, \$12 for non-Members

Until World War II more than 3.5 million Jews lived in the towns and villages of Poland, making up one-third of Warsaw's prewar population and 10 percent of the national total. A thousand years of Jewish culture generated vast numbers of synagogues, prayer houses, schools, ritual baths, markets, and cemeteries — many of which were wiped out by Nazi Germany's Final Solution.

Since the recent collapse of Communism in Eastern Europe and the opening of borders throughout the region, visitors have found that the Nazis failed to obliterate all traces of Jewish civilization in these areas. Almost every major city and countless small towns and villages hold surviving vestiges of the Jewish past, albeit ruined and often hard to find. These buildings have taken on a special significance as survivors of the once-great civilization of Jew-

ish Eastern Europe.

Samuel Gruber is director of the Jewish Heritage Council of the World Monuments Fund, a private preservation organization. Since 1988 the Jewish Heritage Council has documented, protected, and preserved historic Jewish sites around the world. Gruber will discuss the council's work, which includes the restoration of Cracow's Tempel Synagogue. The only nineteenth-century synagogue in Poland to survive the Holocaust essentially intact, the Tempel was completed in 1862. Although it was used by Nazis as a stable, the building's structure miraculously survived, as did its ornate ark and rich interior wall and ceiling paintings. After its restoration, the building will once again function as a synagogue, and it will also host cultural events.

Use the coupon on page 3 to register.

## Members' Day Trip to Ellis Island

Sunday, March 26

9:30 a.m.-3:30 p.m.

\$25, and open only to

Participating and Higher Members

Ages 13 and up

Members can explore our country's immigrant heritage on a day trip to Ellis Island. For more than six decades — from 1892 to 1954 — the depot processed the greatest tide of immigration in the nation's history. Some 12 million people landed at Ellis Island, and today their descendants account for almost 40 percent of the country's population.

Tour guide Joyce Gold will accompany Members on the day trip. Gold, who has a master's degree in metropolitan studies from NYU, teaches popular courses in Manhattan history at the New School for Social Research and NYU. She'll meet participants downtown at the Peter Minuit Plaza at the corner of State and Water streets, in front of the Staten Island ferry terminal.

The tour will begin in Lower Manhattan with a discussion of the city's earliest immigration. Gold will continue her presentation aboard the ferry to Ellis Island and inside the museum's Great Hall. A museum staff member

will take participants on a brief behind-the-scenes tour of the building, and there will be ample time for individual exploration.

Participants should be sure to take a look at the special exhibition *Becoming American Women: Clothing and the Jewish Immigrant Experience, 1880-1920*. Basing their research on the assumption that clothing can more effectively evoke the flavor and issues of a historical era than dry statistics, the Chicago Historical Society conducted a national search for artifacts related to the arrival of Jewish women from Eastern Europe.

The exhibition shows that often the first step in assimilating to the new country was a change in dress and the adoption of popular fashions. It addresses topics such as work, courtship, and leisure as well as intergenerational conflicts between mothers and daughters. Use the coupon on page 5 to register, and please note that tickets are available only by mail.



# City Animals: Fact and Myth

Saturday, March 11  
 11:30 a.m. and 1:30 p.m.  
 Kaufmann Theater  
 \$5 for Members, \$8 for non-Members  
 Ages 5 and up



Where have all the gators gone?

Are there really rats as big as cats lurking in the twilight of our city streets? Do discarded baby alligators roam the sewer system, attacking hapless sanitation workers? Are giant cockroaches invading our pantries, and are raptors nesting along the skyline?

Meet some of the creatures of New York City's urban folklore at *City Animals: Fact and Myth*. Naturalist Bill Robinson will introduce live wild creatures that make their homes in New York City, and he'll explain some of their larger-than-life stories.

Feline-size rats that pop out of garbage cans are actually opossums, the city's only resident marsupials. The opossum's large gray body and hairless tail make it the perfect scapegoat for a giant rat. Don't worry about its 50 sharp teeth — the opossum would prefer to protect itself by playing dead.

You will also have a face-to-face encounter with a large alligator, the legendary sewer resident. Although alligators can live for a short time in such an environment, rumors of a thriving underground alligator community are unfounded.

The 8-foot specimen you'll meet is quite real, and a close look into its gaping mouth of pointy teeth will certainly make an impression.

Peregrine falcons and red-tailed hawks are two raptors that nest on Manhattan skyscrapers. Although they normally fly in the sky above the Museum, they'll make a special indoor flight at the program, right over the audience's heads. Robinson will explain how these magnificent birds manage not only to survive but also to thrive in an urban environment — the city actually hosts the world's largest nesting concentration of endangered falcons.

The waters surrounding Manhattan host an unusual bird called the cormorant. Somewhat prehistoric in appearance, the cormorant has been noted since antiquity for its skill in fishing. For centuries Asian fishermen have tamed the birds and fitted them with snug collars to prevent them from swallowing their catch. Although they fish at an average depth of 25 feet, they have been known to submerge more than 100 feet in search of a catch. They're normally seen only from the shores of Manhattan, but at the program, Members can see an imprinted cormorant on the Museum's stage that will demonstrate its ability to gobble down very large fish.

And what about those giant roaches? Some exotic species have escaped into the city, and brave volunteers from the audience can confront a giant hissing cockroach.

Robinson, who presents his dramatic wildlife programs to thousands of schoolchildren each year, has appeared at the Museum for the past 15 years. Please note that all attendees, parents and children alike, must have tickets. Use the February Members' programs coupon on page 3 to register.

# Clarence S. Bement: The Consummate Collector

Wednesday, March 8  
 7:00 p.m.  
 Kaufmann Theater  
 \$6 for Members, \$9 for non-Members

Minerals have represented a significant portion of the Museum's collections since 1874, when the Museum acquired its first major collection from S.C.H. Bailey, a lawyer from Oscawanna, New York. The 7,000-specimen Bailey collection was displayed in the Central Park Arsenal Building at 64th Street and Fifth Avenue, the Museum's temporary home from 1870 to 1879.

The next significant acquisition came in 1890 with the

purchase of the Spang collection for \$8,000. Charles Spang began collecting minerals around 1833, and his youngest son Norman (1842-1922) followed suit. In 1900, J. Pierpont Morgan, Sr., presented the Museum with the mineral collection of Clarence S. Bement. Morgan, who was a Museum trustee, paid \$100,000 for this extraordinary collection of 12,300 specimens, which included 769 species and 500 meteorites.

Like Norman and Charles Spang, Bement was involved in the iron business; his firm, the Industrial Works, manufactured machine tools for railroad and shipbuilding industries. His astounding collection was assembled between the end of the Civil War and the turn of the century, a period known as the golden age of American mineral collecting. Frederick Canfield, a contemporary of Bement who was also a prominent collector, praised the collection as the finest ever assembled by a private individual.

Joseph Peters, senior scientific assistant in the Department of Mineral Sciences, will show slides of Bement's finest pieces along with highlights from the Bailey and Spang collections. Use the February Members' programs coupon on page 3 to register.



Stibnite from Japan

## Members' Workshop on

# Reading and Interpreting Maps and Making Topographic Models

Tuesdays, March 7 and 14  
 5:30-7:30 p.m.  
 \$40, and open only to Participating and Higher Members

Sidney Horenstein, the Museum's coordinator of environmental public programs, will present a two-part workshop that shows participants how to interpret topographic maps and make their own topographic models.

The first session will focus on the basics of map interpretation: topics include longitude, latitude, scale, and distance. Members will begin to learn how to read and interpret contour lines and

how to make profiles of terrain on maps. At the second session the class will conclude its instruction on interpreting contours and learn the elements of constructing topographic models based on contour lines.

Participants should bring a sharp pair of scissors to class — all other materials are covered by the fee. Use the coupon at left to register, and please note that tickets are available only by mail.

**Tours, Day Trips, and Workshops.** Use this coupon to register for the workshop *Valentine Making* (indicate a first and second choice of times), the day trip to Ellis Island, the workshop on topographic map-making, and *Spiderama*!

Name(s) of program(s): \_\_\_\_\_

\_\_\_\_\_

Number of tickets and price (please indicate which program if more than one): \_\_\_\_\_

Total amount enclosed: \_\_\_\_\_

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Daytime telephone: \_\_\_\_\_

Membership category: \_\_\_\_\_

Please make check payable to the American Museum of Natural History and mail with a **self-addressed, stamped envelope** to: *Tours and Workshops*, Membership Office, American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192.



## Evening and Afternoon Lecture Series



Animal Drawing in the Hall of African Mammals

### Sacred Deeds: Native American Land Conservation

Monday, March 20  
7:00–8:30 p.m.  
\$11 for Members, \$12 for non-Members

Ronald S. McNeil, president of the American Indian College Fund, will speak on issues facing American Indians. He'll focus on the Native American sense of connection with the earth and of stewardship and custodial responsibility as opposed to the concept of land ownership.

A member of the Hunkpapa band of the Lakota Sioux Nation, McNeil is a former tribal college student and instructor and is president of Standing Rock College.

### Toward the Arctic Ocean and the North Pole

Four Wednesdays, March 1–22  
7:00–8:30 p.m.  
\$27 for Members, \$30 for non-Members

Rich in natural resources and wildlife, the Arctic

holds the promise of wealth and glory. The region's population and industrial activity are steadily increasing, and its destiny is shaped by its formidable climate and terrain, its native peoples, and its strategic maritime importance.

This four-part series is presented by Kenneth A. Chambers, who is an author, a retired Museum lecturer in zoology and explorations, and a scholar of polar history.

March 1: *Northern Seas and Arctic Explorations: A History of Discovery*

March 8: *In Search of the Franklin Expedition*. A haunting mystery of a lost venture.

March 15: *Amundsen and Ellsworth Conquer the Arctic*. The Northwest Passage and polar flights.

March 22: *Ringed the Pole: The Northern Sea Route's Northeast Passage*. Historical perspectives, the development of the Russian icebreaker fleet, and the Northern Sea Route Project.

### Challenges of Gorilla Conservation

Two Thursdays, March 30 and April 6  
7:00–8:30 p.m.  
\$18 for Members, \$20 for non-Members

The highly endangered mountain gorillas, which are thought to number only 650, live in the rain

forest ecosystems of Rwanda, Zaire, and Uganda. In this two-part, slide-illustrated overview, H. Dieter Steklis discusses the long-term conservation of mountain gorillas and their habitat.

Former director of Karisoke Research Centre, Steklis led the evacuation of Karisoke when the Rwandan war erupted in 1993. He is currently the executive director of the Dian Fossey Gorilla Fund and a professor of anthropology at Rutgers University.

### Geology for Travelers

Three Tuesdays, March 21–April 4  
7:00–8:30 p.m.  
\$22.50 for Members, \$25 for non-Members

This three-part, slide-illustrated series introduces basic concepts in geology and offers travelers suggestions about applying these concepts to the places they visit. A review and classification of the major landscapes of the earth and their underlying geological structure completes the survey. Geologist Sidney Horenstein, the Museum's coordinator of environmental public programs, will also outline suggestions for obtaining information about the geology of specific areas.

March 21: *Basic Geological Principles*

March 28: *Landscape Classification*

April 4: *Geological Structures*



## Eight Unusual Northeastern Indian Lives

Four Mondays, March 27–April 17  
7:30–9:00 p.m.  
\$27 for Members, \$30 for non-Members

The names of Tecumseh, Pontiac, King Philip, and other Indians loom large in American history. National Park Service archeologist Robert S. Grumet will use maps, illustrations, documents, and oral traditions to tell the stories of eight lesser-known Indian men and women as chronicled by European colonists in and around the Greater New York area during the 1600s and 1700s. The profiles of these individuals reflect the range of responses to the problems and opportunities that arose through contact with other Indians and European colonists.

March 27: *Indian Diplomats and Warriors in New Netherlands and Early New York*. The careers of Hackensack sachem Oratam and Massapequa leader Tackapousha are reviewed and interpreted. Both men led their people in uprisings against colonists during the 1640s and 1650s; after their failure to drive away the Europeans, they struggled to compromise with their increasingly powerful and numerous neighbors.

April 3: *Women Leaders*. This lecture focuses on the careers of two powerful and all-but-forgotten women leaders. Mamanuchqua was an influential Esopus Indian sachem who lived in the mountainous Shawangunk country and led her people during the late 1600s, when Dutch, Huguenot, and English settlers flooded into Ulster County, New York. Farther north in Massachusetts, the Saconnet squaw sachem Awashunkes guided her tribe through the difficult years surrounding King Philip's War, which was fought from 1675 to 1676.

April 10: *Culture Brokers and Go-Betweens*. Skilled intermediaries who were conversant in both Indian and European languages and customs served as go-betweens among the different cultures of the colonial Northeast. This lecture will examine two of these figures: Suscaneman, a sachem of Long Island's Matinecock tribe, who signed more than one hundred deeds to lands in and around the town of Oyster Bay between 1655 and 1700; and Moses Tunda Tatamy, a New Jersey-based Delaware Indian who traveled widely through the frontier of the eighteenth century as an interpreter, guide, messenger, and diplomat.

April 17: *Peacemakers and Warriors on the*

*Eighteenth-Century Frontier*. The lives of two prominent eighteenth-century Mohawk warriors and diplomats are the focus of this lecture. Tiyonogan, known to the English as King Hendrik, served his people as a statesman and warrior for nearly half a century. A skillful and wily diplomat, he became the friend and confidant of many of the most prominent figures of his age. His younger cousin Thyendenegea, better known as Joseph Brant, became a brilliant leader of Indian and European troops during the Revolutionary War. After the war, he led many of his people to new homes in Ontario's Six Nation Reserve.

## Evenings with the Library's Special Collections

Four Tuesdays, March 28–April 18  
7:00–8:30 p.m.  
\$27 for Members, \$30 for non-Members

The American Museum's library is one of the world's great natural history research collections. Nina Root, library director, and Joel Sweimler, manager of special collections, will discuss and show some of the library's great treasures and rarities. Each evening will begin with a brief talk accompanied by slides or films. Participants will then view rarely seen materials from the collections while Root and Sweimler discuss the items' history and significance.

March 28: *Rare Books*. A history of science and world exploration is traced by the collection's rare and beautiful colored atlases and original watercolors.

April 4: *Films*. The library has saved and restored over 600 natural history films, including a rare 1915 color film and 1920s footage of Africa, Asia, and America. Selections will be shown and discussed, and one rare film will be shown in its entirety.

April 11: *Photographs*. The photo collection contains approximately one million images that date from 1840 and document now-vanished or altered societies, fauna, and landscapes.

April 18: *Art, Memorabilia, and Archives*. The collection of art and memorabilia comprises more than 2,000 items, and the Museum's archives includes some eighteenth-century documents. This presentation will feature paintings and sculptures, Teddy Roosevelt's rifle, and letters signed by legendary figures.

## Mountain Wildflowers of the North

Four Thursdays, March 2–23  
7:00–8:30 p.m.  
or  
Four Mondays, March 6–27  
2:30–4:00 p.m.  
\$27 for Members, \$30 for non-Members

Wild areas of coniferous forest, alpine tundra, and wetlands blanket many of the mountains of Alaska, the Pacific Northwest, and New England. Their flowers include complex orchids, colorful lilies, dwarf arctic creepers, and ancient cushion plants. These slide-illustrated lectures will examine northern wildflowers, focusing on their identification and ecology. William Schiller, lecturer on botany in the Department of Education, presents this series.

Week 1: *Arctic Flowers on the Mountains of Alaska and the Pacific Northwest*

Week 2: *New England's Arctic Flora: Mountaintop Ice Age Relics*

Week 3: *Wildflowers of Northern Coniferous Forests: Floral Survival Strategies under Spruce and Fir*

Week 4: *Wildflowers of Northern Boglands: Bog Orchids, Labrador-tea, and Associated Flora*

## Special Music and Theater Events

### Classical Music and Dance of Korea

Wednesday, March 29  
7:30 p.m.  
Main Auditorium  
\$6 for Members, \$8 for non-Members

The Museum's Unity Through Diversity spring series will begin with a performance by a ten-member ensemble of Korea's leading classical musicians and dancer Jung-Jae Guk, a National Living Treasure. The ensemble will make its only New York appearance at the Museum, where it will present a range of styles reflecting the cross-cultural influences of Korea's 2,000-year history. The styles include Chinese court and ritual music, classic works from Korean Confucianism, royal court music, and processional music rarely played outside of Korea.

A slide-illustrated introductory lecture and demonstration of Korean musical instruments and dance will be held on Tuesday, March 28, at 7:00 p.m. in the Kaufmann Theater. Admission is free for the first 300 individuals holding a concert ticket.

### Museum Mystery Theater: "The Mask of Suspicion"

Friday, March 20; Monday, April 19; Friday, May 5  
7:00–8:30 p.m.  
\$22.50 for Members, \$25 for non-Members

The Education Department, in conjunction with Manhattan Rep. Company, presents a fascinating tale of distrust, apprehension, and evil. *The Mask of Suspicion* uses a classic Museum gallery to explore the traditions and culture of a fictional tribe, the Northwest Coast's Bella Mon Indians.

An anthropological and historical study reveals an ancient ceremonial mask of the Bella Mon that endows the wearer with special powers. If you are a healer, it makes you a better healer; if you are a warrior, it makes you a better warrior; if you are evil, it makes you more evil.

Several Museum employees and visitors have had strange accidents in the gallery where the mask is displayed. Could the mask be responsible? A famous anthropologist will lecture on the origins of the Bella Mon masks and perhaps explain some of these bizarre events. A wine-and-cheese reception is part of the intrigue.



Eight Unusual Northeastern Indian Lives



## Workshops, Field Trips, and Walking Tours

### Animal Drawing

Eight Tuesdays, March 7–April 25  
7:00–9:00 p.m.  
\$105 (no discount for Members)  
Materials not included  
Limited to 25 people

Join a Museum artist to sketch subjects such as gazelles on the African plains and timber wolves in the snowbound North. After the Museum has closed to the public, students gather to draw animals from the famed habitat groups as well as mounted specimens. Stephen C. Quinn, senior assistant manager in the Exhibition Department, discusses drawing technique, animal anatomy, and the role of the artist at the Museum. Individual guidance is given to each participant, whether beginner or experienced artist.

### Spring Flowers and Trees in Central Park

Wednesday, April 12; Saturday, April 29;  
and Saturday, May 6  
9:00–11:00 a.m.  
Limited to 25 people  
\$7 per walk (no discount for Members)

A two-hour morning walk in Central Park observes botanical signs of spring. Participants will explore Strawberry Fields, Hemshead, and the Shakespeare Garden and watch these areas change with the season. They'll learn about plant identification and ecology from William Schiller, lecturer in botany in the Department of Education.

The walks will start at 72nd Street and Central Park West.

## Spring Bird Walks in Central Park

Tuesdays, April 4–May 30; 7:00–9:00 a.m.  
and Thursdays, April 6–June 1; 9:00–11:00 a.m.  
\$7 per walk or \$50 for either series (no discount for Members)  
Limited to 25 people

Observe the spring arrival of birds in Central Park with naturalists Stephen Quinn (Tuesdays) and Harold Feinberg (Thursdays). Learn how to identify birds by field marks, habitat, behavior, and song. Participants meet across the street from the Museum on the northeast corner of Central Park West and 77th Street. Pre-registration is required; tickets may be purchased for individual walks or for either series.

### Cape Cod Whale Watch Weekend

Friday–Sunday, May 19–21  
\$400 (per person, double occupancy; no discount for Members)  
Limited to 45 adults

This weekend is filled with opportunities to observe and learn about Cape Cod's natural and cultural history. Trip leaders include Brad Burnham, a natural science instructor in the Education Department, and Stephen Quinn, naturalist and avid birder.

The weekend's schedule includes three four-hour whale watch cruises by private charter, a lecture by leading whale expert Dr. Stormy Mayo, a guided birding walk along the trails of Wellfleet Bay Wildlife Sanctuary, a stop at Mystic Aquarium, and a chance to explore Provincetown or stroll along its beach.

Fee includes transportation, two nights' lodging, meals, boat cruises, lectures, and admission to the sanctuary and aquarium.

### 1995 REGISTRATION COUPON

Please make check payable to the American Museum of Natural History and mail with a **self-addressed, stamped envelope** to: Lecture Series, Education Dept., American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192.

Please note that credit-card payment is now available and that registration will be delayed if daytime phone number or stamped, self-addressed envelope is not included. Participating and Higher Members can take a 10 percent discount on any program that does not have limited enrollment. For further information call (212) 769-5310.

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Daytime telephone: \_\_\_\_\_

Membership category: \_\_\_\_\_

Course	Day	Hour	No. tickets	Price (each)	Total

Course	Day	Hour	No. tickets	Price (each)	Total

Total amount enclosed: \_\_\_\_\_

Method of payment: ☐ Check ☐ MC ☐ Visa

Account no.: \_\_\_\_\_

Expiration date: \_\_\_\_\_ Month/Year



## Celebrating 125 Years

The Sholaga dancers pictured above were photographed in the 1920s during the Vemay-Faunthorpe Expeditions in India. Several expedition photographs from around the world are on display in the Akeley Gallery in *People and Places*, one of the special exhibitions that commemorate the Museum's 125th anniversary.

The *First 125 Years*, in Birds of the World on the

second floor, offers a decade-by-decade survey of the Museum's growth and development. Exhibits include specimens, photographs and videos that tell the story of the Museum's earliest days, when the ground on which the building stands was just a muddy extension of Central Park, to the present-day's sprawling series of interconnected buildings that house an international center for

scientific research.

In the Library Gallery *The World Explored: 125 Years of Collecting Photographs* features some gems from the Museum's extensive collections of photographs and film. The library's holdings comprise over one million images and 3,000 reels of film and represent a valuable scientific and historical record from the mid-nineteenth century to the present.

## Members' Birthday Parties at the Museum

Young Members can celebrate their birthdays in the Hall of Meteorites, Minerals, and Gems with the new theme party *The Dynamic Earth*. They'll take a hands-on approach to learn how scientists identify minerals, precious stones, and meteorites, and they'll go on a treasure hunt through the hall to discover its geological wonders.

The Membership Office sponsors other theme parties for Members between the ages of 5 and 10 that focus on fossil mammals, dinosaurs, African mammals, reptiles and amphibians, ocean dwellers, and Native Americans. In addition to *The Dynamic Earth*, another new theme party offers party-goers a

look at one of the Naturemax films — *Yellowstone* or *Africa: The Serengeti*.

The group should be no fewer than 10 and no more than 20. The fee is \$300 plus \$15 per child and covers all materials and the services of a Museum party coordinator. The coordinator will help you plan a party that suits your child's tastes and will handle everything from candles to party favors. All you need to do is bring the cake and help escort the guests. The parties are available only to Members at the Contributor (\$100) and higher levels.

For more information about the children's birthday parties, which are two hours long, call (212) 769-5542.

## Eco Impact Forum

On Wednesday, February 15, at 6:30 p.m., lecturer Sidney Horenstein presents *Weathering of Building Stones in the Urban Environment*. Horenstein is a geologist and coordinator of environmental public programs at the American Museum.

This free program is part of

an ongoing series of lectures that focus on environmental issues of concern to the greater metropolitan area. No tickets or reservations are necessary for the one-hour lecture, which will take place in the Linder Theater. For additional information about this program call (212) 769-5750.



# Spiders!

**Exhibition opens in Gallery 3 on Friday, March 17**  
**Members' Preview: Thursday, March 16, 4:00-8:00 p.m.**

Spiders spin a spell over everyone. Reactions to them range from fascination to phobia, and spiders appear in folklore and legends all around the world. The facts of spider life are as fantastic as fiction, and *Spiders!* explores both.

Visitors will encounter the surprising beauty of spiders — their spines, horns, weird hairy tufts, and intricate body surface designs. The 36,000 identified species possess a glorious gamut of lifestyles that have evolved over 400 million years in habitats ranging from caves to mountains and deserts and even under water. Spiders are among our foremost allies in the ongoing battle against agricultural insect pests, and if they were to suddenly disappear, the world would be a very different place — and not a better place for us.

Spiders have the same problems we do — finding shelter, meeting a mate, raising offspring, and finding food. The exhibition will explore their courtship and reproductive strategies and their techniques for survival. Their distinctive practice of web-spinning will also be explored, with an in-depth look at the diversity of web architecture and the way that webs are carefully designed to catch different kinds of prey.

The Members' preview is free and open to Participating and Higher Members. No

tickets are necessary: your valid membership card is your ticket of admission. *Spiders!*, which was made possible through the generous support of Marvel Entertainment

Group, Inc., was organized by the National Museum of Natural History, Smithsonian Institution, and circulated by SITES. The exhibition will be on display through June 4.



*Black widow spider*

## Members' Guided Tours of Spiders!

**Friday, March 31**  
**6:00, 6:30, 7:00, and 7:30 p.m.**  
**Free, and open only to Participating and Higher Members**

You're never really alone — there's usually a spider less than a few yards away. They're everywhere, but they often go unnoticed; most of them are small and secretive, and they lead solitary lives.

At the Members' tours of *Spiders!*, participants can explore the exhibition in the company of Volunteer Highlights Tour guides. The guides will offer facts about the exhibits, including the difference between spiders and insects (and how to tell them apart), how spiders see the world (imagine having eyes on the top of your head), and why spiders don't stick to their webs (a combination of hop-scotch, experience, and toe-sucking — really!).

Use the February Members' programs coupon on page 3 to register for the tours.



*Lycosa spider with young on its back*

## Spiderama!

**Saturday, March 18**  
**9:00 a.m.-2:00 p.m.**  
**Ages 5 and up**  
**\$15, and open only to Participating and Higher Members**



*A showing of the film Charlotte's Web is among the attractions of the family program Spiderama!*

Bring the kids to get spiderized on Saturday, March 18, when a variety of events related to the *Spiders!* exhibition will take place all around the Museum. Use the coupon on page 5 to register for the following activities.

### Exhibition Tours

Beat the rush — these family tours of the exhibition will be guided through Gallery 3 before the Museum opens to the general public. The tours, which last about 20 minutes, leave from the entrance to Gallery 3 at 8:40, 9:00, 9:20, and 9:40 a.m.

### A Film, Workshop, and a Spider Chat

A film of the children's classic *Charlotte's Web* will be shown at 10:30 a.m. in

the Kaufmann Theater. The film is 94 minutes long.

After the film, participants can join June Myles at a craft workshop, where they'll make spider souvenirs to take home. In addition, entomologist Lou Sorkin will present a spider chat in the Linder Theater. Sorkin will show slides and display live spiders (including tarantulas), and he'll talk about spider behavior and ecology. The crafts workshop and the spider chat will last for 45 minutes each.

Tickets for the film, workshop, and the spider chat are \$15 and available only to Participating and Higher Members ages 5 and older. Use the coupon on page 5 to register. To order tickets for the film only, which are \$5 for Members and \$8 for non-Members, use the February Members' programs coupon on page 3.



## From the Volunteer Department

*Expedition: Treasures from 125 Years of Discovery* is an exciting and innovative Museum experience. Some special volunteer opportunities are still available, and we'd be pleased to welcome you into our Museum volunteer program. Call Donna Sethi at (212) 769-5523 for additional information and an application.

Look for Volunteer Explainers on the fourth floor in the Lila Acheson Wallace Wing of Mammals and Their Extinct Relatives. The explainers, who can be identified by their blue armbands and explainer buttons, answer questions and offer insights into the hall.

In June of this year the new dinosaur halls will open to the public. We are looking for a group of dedicated and motivated individuals to train as explainers in these halls. You must be prepared to thoroughly immerse yourself in the subject matter. In addition to formal training classes, you must learn additional material on your own. Mastering the material is not enough to make one a successful explainer; you must also have the desire and ability to share this information with the public. Imparting the information is as important as learning it.

If you are interested in interviewing for an explainer position in the dinosaur halls, please contact Erica Okone at (212) 769-5562. Interviews will be held in March, and training will begin in April.



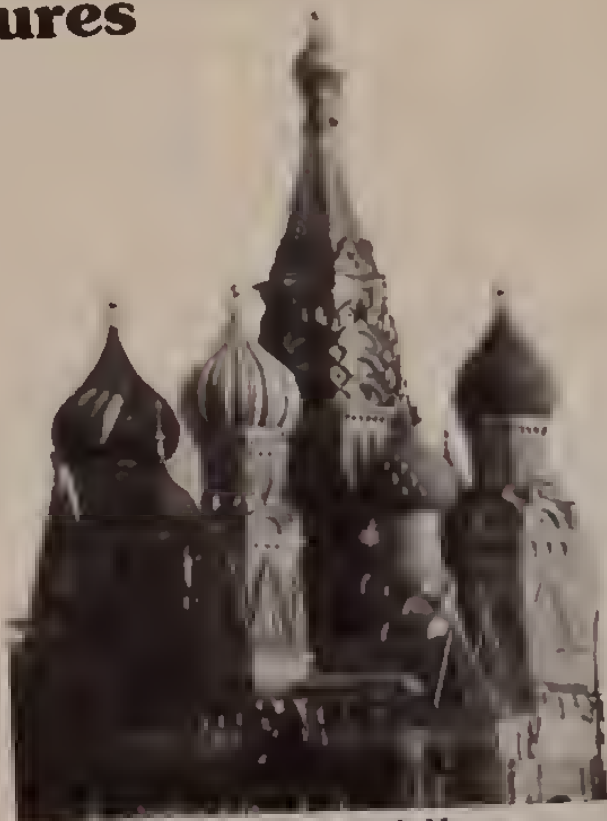
Scenes from the 1920s Central Asiatic Expeditions

## Family Adventures

Once again Discovery Cruises and Tours is pleased to offer exciting summer travel adventures designed for children accompanied by parents and/or grandparents. These family programs have been carefully developed to offer a combination of relaxation, experiential learning, and outdoor fun. The lecture and enrichment programs conducted during these trips are designed to meet the diversity of interests of multi-generational travelers.

One of the 1995 family cruises is the Mediterranean "Voyage to the Land of Gods and Heroes," from June 30 to July 11, with visits to historic places in Italy, Greece, and Turkey. Destinations include Santorini, Crete's famous Minoan town of Knossos, the acropolis at Lindos on Rhodes, and the ancient sites of Ephesus and Olympia, as well as Istanbul and Athens.

The other family cruise, from July 15 to 26, is "Waterways of Russia," which explores the magnificent city of St. Petersburg and the



Saint Basil's Cathedral, Moscow

capital city of Moscow. These two cities are linked by some of the most fascinating waterways in the world, and this cruise will afford the opportunity for families to experience this land of quaint villages, churches with onion-shaped domes, palaces, and spectacular scenery.

These cruises have been

planned with special rates to encourage families to travel together and experience different cultures and areas of the world. For further information, call Discovery Cruises/Tours at (800) 462-8687 or in New York State at (212) 769-5700, Monday through Friday, from 9:00 a.m. until 5:00 p.m.

## Naturemax

The new IMAX film *Africa: The Serengeti* explores the relationships between predator and prey by following the great migration of wildebeests, zebras, and other animals. Showtimes are 10:30 and 11:30 a.m. and 1:30 and 3:30 p.m. daily.

*Yellowstone* takes viewers on a journey to the national park to discover its history, geology, and wildlife. Showtimes are 12:30, 2:30, and 4:30 p.m.

On Friday and Saturday at 6:00 and 7:30 p.m., *Africa: The Serengeti* is shown on a double bill with *Yellowstone*. Schedules and prices are subject to change without notice. Call (212) 769-5650 for further information.

**Admission** (Participating and Higher Members)

Adults: \$4.75 single feature; \$6 double feature  
Children: \$2.25 single feature; \$3.25 double feature

## Parking

The Museum's parking lot now offers expanded hours and revised rates. The parking lot, which is operated in conjunction with the Edison Hayden Corporation, is open every day from 7:00 a.m. till 11:30 p.m.

Rates for cars entering between 7:00 a.m. and 5:00 p.m. start at \$5 for up to a half-hour and advance by stages to a closing-time maximum of \$17. Cars entering between 5:00 p.m. and 11:30 p.m. are charged a minimum of \$5 and a maximum of \$7 on Sunday through Thursday and a maximum of \$12 on Friday and Saturday.

Buses are charged \$11 and are not admitted on weekends.

The parking lot has a capacity of 100 vehicles and is operated on a first-come, first-served basis. Hertz Manhattan, located one block away from the Museum at 210 West 77th Street (between Broadway and Amsterdam), offers parking discounts to Members: on Monday through Friday Members receive a \$2 discount off regular prices and on Saturday and Sunday they receive a \$3 discount.

Call (212) 769-5606 for information about alternative parking.

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Featuring our  
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**DINO SIPPERS**  
**DINO FRIES**

And our latest addition:  
**LUCKY NICKEL**  
**BUFFALO WINGS**

Hours: 11 am - 4:45 pm, Mon. - Sun.  
On lower level, next to the Garden Cafe.  
DINER SAURUS is available for birthday parties.  
Please contact our manager at 874-3131.





## Museum Notes

### Hours

Exhibition Halls  
 Mon.-Thurs. & Sun. .... 10:00 a.m.-5:45 p.m.  
 Fri. & Sat. .... 10:00 a.m.-8:45 p.m.  
 The Museum Shop  
 Mon.-Thurs. & Sun. .... 10:00 a.m.-5:45 p.m.  
 Fri. & Sat. .... 10:00 a.m.-7:45 p.m.  
 The Junior Shop  
 Mon.-Fri. .... 10:00 a.m.-4:45 p.m.  
 Sat. & Sun. .... 10:00 a.m.-5:45 p.m.  
 The Museum Library  
 Tues.-Fri. .... 11:00 a.m.-4:00 p.m.  
 The Natural Science Center  
 For children of all ages and their families.  
 Closed on Mondays and holidays.  
 Tues.-Fri. .... 2:00-4:30 p.m.  
 Sat. & Sun. .... 1:00-4:30 p.m.  
 The Discovery Room  
 Passes are distributed at the first-floor information desk beginning at 11:45 a.m. Ages 5-15.  
 Children must be accompanied by an adult.  
 Closed on holidays and weekdays.  
 Sat. & Sun. .... Noon-4:30 p.m.

### Museum Dining

Diner Saurus Fast Service Eatery  
 Daily .... 11:00 a.m.-4:45 p.m.  
 Garden Cafe  
 Reservations: (212) 769-5865  
 Lunch: Mon.-Fri. .... 11:30 a.m.-3:30 p.m.  
 Dinner: Fri. & Sat. .... 5:00-7:30 p.m.  
 Brunch: Sat. & Sun. .... 11:00 a.m.-4:00 p.m.

Whale's Lair  
 Fri. .... 3:00-8:00 p.m.  
 Sat. .... Noon-8:00 p.m.  
 Sun. & most holidays .... Noon-5:00 p.m.  
 Snack Carts  
 Sat. & Sun. .... 11:00 a.m.-4:00 p.m.

### Entrances

During Museum hours visitors can enter the building through the 77th Street entrance, the parking lot entrance (81st Street), or the Roosevelt Memorial Hall entrance (79th Street and Central Park West). **Visitors attending programs after hours can enter the building at 79th Street and Central Park West.**

### Phone Numbers

Museum information .... (212) 769-5100  
 Membership information (for questions about Museum events) .... (212) 769-5606  
 Participating Members' Customer Service (for questions and problems related to Rotunda and Natural History magazine — missed issues, address changes, and other information) .... (800) 283-AMNH  
 Planetarium information .... (212) 769-5900  
 Education Department .... (212) 769-5310  
 Discovery Tours .... (212) 769-5700  
 .... toll-free outside NY State: (800) 462-8687  
 Naturemax .... (212) 769-5650  
 Development/Public Affairs .... (212) 769-5270  
 Volunteer Office .... (212) 769-5566  
 Museum Shop .... (212) 769-5150  
 Library Services .... (212) 769-5400  
 Natural History magazine .... (212) 769-5500  
 Members' Book Program .... (212) 769-5500  
 Members' Birthday Parties .... (212) 769-5542

## Expedition: 125 Years of Discovery

The blue whale in *Ocean Life* is one of the 50 treasures highlighted in the new self-guided Expedition tours. Visitors can come to the base camp in the Hall of Asian Mammals on the second floor for an orientation session that will send them on a treasure hunt around the Museum in the manner of a grand expedition.



## Happenings at the Hayden

### Sky Show

### The Ten Most-Asked Questions about the Universe

Premieres on February 8

What is a black hole? Is there life elsewhere in the universe? Does Planet X exist? Are UFOs real? When is the best time to see the Northern Lights? What is at the edge of the universe? How will the universe end? This Sky Show answers these and other frequently asked questions about space.

#### Showtimes:

Mon.-Fri. .... 1:30 and 3:30 p.m.  
 Sat. .... 11:00 a.m. (except for Feb. 4 and March 4), 1:00, 2:00, 3:00, 4:00, and 5:00 p.m.  
 Sun. .... 1:00, 2:00, 3:00, 4:00, and 5:00 p.m.

**Please note that there will be no Sky Shows on Feb. 6 and 7.**

Admission (Participating and Higher Members)  
 Adults: \$4  
 Children (2-12): \$2

Call (212) 769-5100 for additional information and non-Members' prices. Please note that prices are subject to change without prior notice.

### Lectures

#### Frontiers in Astronomy and Astrophysics

On Tuesday, February 21, at 7:30 p.m., Kenneth Mighell, associate research scientist at Columbia University, will present an illustrated talk, "The Formation and Evolution of Dwarf Galaxies."

On Monday, March 13, at 7:30 p.m., Stephen Gregory, professor of astronomy at the University of New Mexico, will present an illustrated talk, "Voids in Space."

These lectures are part of the Frontiers in Astronomy and Astrophysics series. Tickets are \$6 for Participating and Higher Members and \$8 for non-Members. For information about ticket avail-

ability and upcoming lectures, call (212) 769-5900. Use the coupon at right to order tickets.

### Exhibition

#### The Universe Revealed: Recent Images from the Hubble Space Telescope

This exhibition features photographs of recent discoveries made by the Hubble Space Telescope, including the M87 galaxy (which proves the existence of black holes) and images of the Shoemaker-Levy 9 comet strikes on Jupiter. A 1:15 scale model of the Space Shuttle Orbiter deploying the Hubble is on display, along with a scale model of the Optical Telescope Assembly of the Hubble Space Telescope and a video of the repair mission of December 1993.

### Children's Shows

Wonderful Sky is a special Sky Show for preschoolers. Children sing along with images of their favorite Sesame Street Muppets as they learn about rainbows, the phases of the moon, sunsets, and stars. Sat., Feb. 4, at 10:30 and 11:45 a.m., and Sat., March 4, at 10:30 a.m. Admission for Participating and Higher Members is \$4 for adults and \$2 for children. Members can purchase up to four tickets at the Members' price.

Shows usually sell out in advance; reservations, by mail only, are necessary. Make your check payable to the Hayden Planetarium (attn: Wonderful Sky, Central Park West at 81st Street, New York, NY 10024-5192); indicate membership category and a first and second choice of showtimes. Be sure to include a self-addressed, stamped envelope and your daytime telephone number. For additional information call (212) 769-5900.

Robots in Space features Lucasfilm's R2D2 and C-3PO and has been created especially for children ages 7 to 12. Together with a live host, these famous space robots take children on a tour of the universe. See how satellites and probes — the real space robots — help us learn about worlds near and far. Journey from the earth to other planets and distant black holes. Sat., March 4, at 11:45 a.m. Admission for Participating and Higher Members is \$4 for adults and \$2 for children. For information, call (212) 769-5900.

### Courses for Stargazers

The Planetarium offers a variety of courses for adults and children in astronomy, meteorology,

aviation, and navigation. For further information and a catalog of courses, call (212) 769-5900.

### Laser Light Shows

Journey into another dimension where laser visuals and rock music combine to create a dazzling 3-D experience of sight and sound. Shows are presented on Fridays and Saturdays at 7:00, 8:30, and 10:00 p.m. For prices and show schedule, telephone (212) 769-5100.

It's always a good idea to call before visiting the Planetarium, since prices, programs, and showtimes are subject to change without notice. For general Planetarium information, call (212) 769-5100.

**Lecture: "The Formation and Evolution of Dwarf Galaxies."** Tuesday, February 21, 7:30 p.m.

Number of Members' tickets at \$6

(no more than 4, please): \_\_\_\_\_

Number of non-Members' tickets at \$8: \_\_\_\_\_

Total amount enclosed for program: \_\_\_\_\_

**Lecture: "Voids in Space"**

Monday, March 13, 7:30 p.m.

Number of Members' tickets at \$6

(no more than 4, please): \_\_\_\_\_

Number of non-Members' tickets at \$8: \_\_\_\_\_

Total amount enclosed for program: \_\_\_\_\_

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Daytime telephone: \_\_\_\_\_

Membership category: \_\_\_\_\_

Please make check payable to the Hayden Planetarium and mail with a **self-addressed, stamped envelope** to: Lecture, Hayden Planetarium, Central Park West at 81st Street, New York, NY 10024-5192.

Please note that ticket orders are subject to availability and cannot be processed without telephone number and stamped, self-addressed envelope. **Do not include ticket requests or checks for American Museum programs.**



Sun Mon Tue

Wed

Thu

Fri Sat

# February 1995 American Museum of Natural History



Trumpeter swan

**1 7:30 p.m.** Amateur Astronomers Association. Speaker: Arlin Crofts. Columbia University: "Gravitational Microlensing: Have We Found the Missing Mass?" Kaufmann Theater. Free.

**2 6:00-9:00 p.m.** Members' preview of *Images of Power* in Gallery 77. Page 1.

**7:00 p.m.** Artists and Anthropologists: Members' evening program. Kaufmann Theater. \$8 for Members. \$12 for non-Members. Page 1.

**3 6:30-8:30 p.m.** Epic Fragments: A Museum Odyssey. Members' guided tours. Page 2. **SOLD OUT.**

*Images of Power* opens in Gallery 77. Page 1.

4

## Curator François Vuilleumier Exhibits in Piermont, NY



Water rail by François Vuilleumier

Drawings, watercolors, and pen-and-ink sketches of birds by François Vuilleumier will be on display at the Piermont Public Library, located at 153 Hudson Terrace in Piermont, New York, throughout the month of February. A curator in the Department of Ornithology since 1974, Vuilleumier draws and

paints birds as a hobby. He has led numerous expeditions to distant lands where, during his free time, he enjoys drawing birds in the field. Displays include pictures drawn in the United States and his native Switzerland as well as in Tasmania and South America. For more information call (914) 359-4595.

**5 10:30 a.m. and 1:30 p.m.** From the Heart. Members' adult-child valentine-making workshop. \$26 per couple, and open only to Participating and Higher Members. Tickets required. Page 2.

6

**7 6:00-8:30 p.m.** The Art of the IRT. Members' subterranean tour. \$30, and open only to Participating and Higher Members. Tickets required. Page 2. **SOLD OUT.**

**8 5:30 p.m.** NY Mineralogical Club. Edith C. Blum Lecture Room. Free.

**9 7:00 p.m.** *Whales of Ancient Tethys*. Members' evening program. Kaufmann Theater. \$8 for Members. \$12 for non-Members. Page 3.

**12 2:00 p.m.** NY Shell Club. Room 319. Free.



Common pelican

**14 7:30 p.m.** Linnaean Society. Seventeenth Annual Members' Slide Show. Linder Theater. Free.

**15 6:30 p.m.** Eco Impact Forum. Speaker, Sidney Horenstein: "Weathering of Building Stones in the Urban Environment." Linder Theater. Free. Page 8.

**16 7:00 p.m.** *Underwater Archeology: From Projectile Points to Atom Bombs*. Members' evening program. Kaufmann Theater. \$8 for Members. \$12 for non-Members. Page 3.

**19 2:00 p.m.** Paleontological Society. Room 319. Free.

20

**21 7:00 p.m.** NY Entomological Society. Room 319. Free.

22

**23 7:00 p.m.** *Endangered Heritage: Jewish Cemeteries and Synagogues in Poland*. Members' evening program. Kaufmann Theater. \$8 for Members. \$12 for non-Members. Page 4.

**24 6:30-8:30 p.m.** *Epic Fragments: A Museum Odyssey*. Members' guided tours. Page 2. **SOLD OUT.**

**25 1:30 and 3:30 p.m.** *Fire in the Snow*. Members' family program, presented by the Shoestring Players. Kaufmann Theater. \$7 for Members, \$10 for non-Members. Page 2.

**1:45 p.m.** Sign language tour: *Images of Power*. See Feb. 26.

**26 1:00 p.m.** NY Mycological Society. Room 319. Free.

27

**28 7:30 p.m.** Linnaean Society. Speaker: Marc Jaffe, science editor, *The Philadelphia Inquirer*: "The Snake that Ate Guam." Linder Theater. Free.

**11:45 a.m.** Sign language tour: *Images of Power*. A guided tour of the Gallery 77 exhibition will be signed with voice interpretation. Free. Call (212) 769-5566 (TTY users: 1-800-662-1220 relay) for further information.

### Too Much Mail?

The Membership Office recently mailed a letter to prospective Members asking them to join the Museum. In spite of our best efforts to remove the names of our current Members from this

mailing, you may have received one of these letters. Please accept our apology. Would you consider passing the letter on to a friend? Your help in reaching new Members is greatly appreciated.



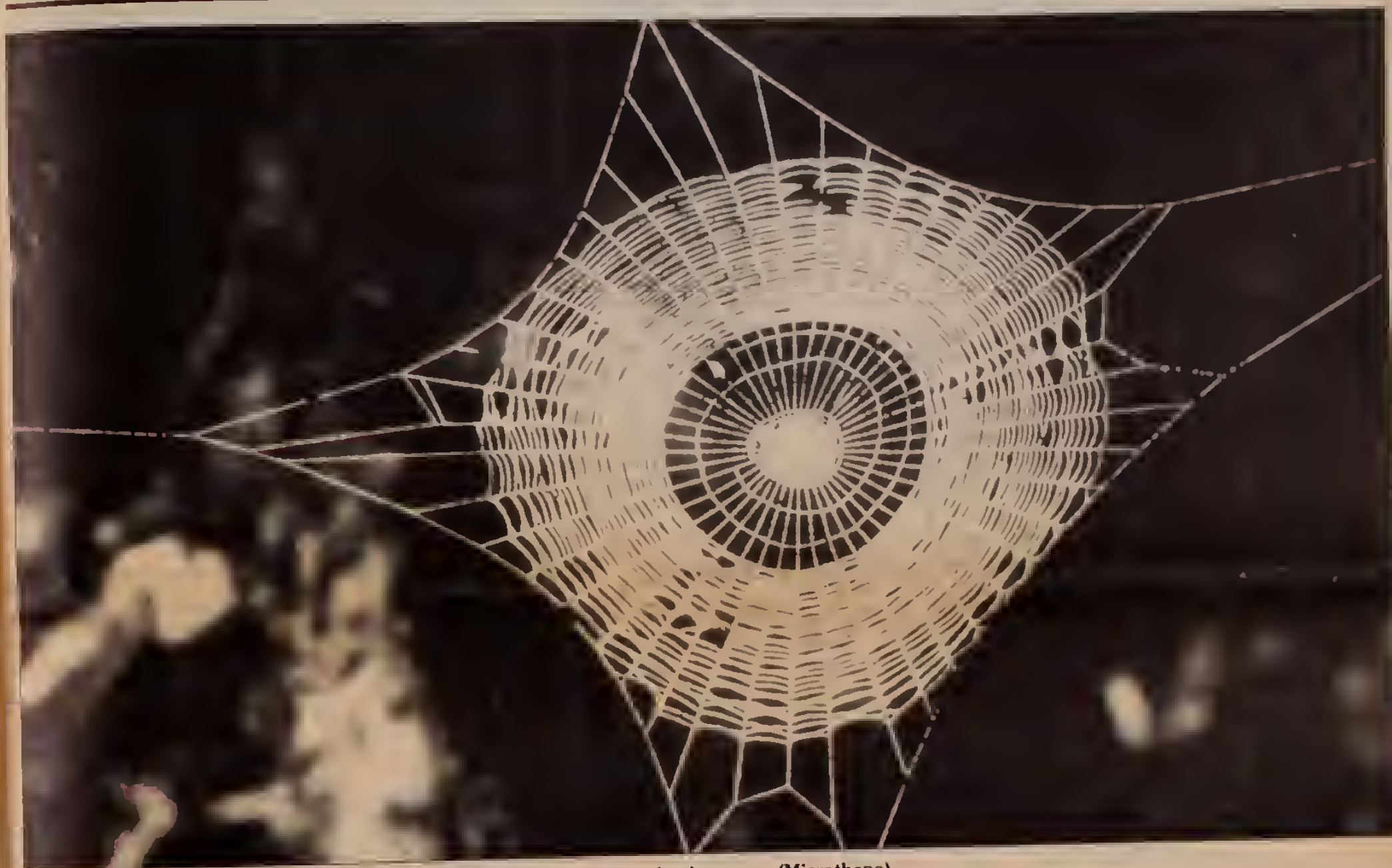
Wood duck



# POTUNDA

For Participating and Higher Members of the American Museum of Natural History

Vol. 20, No. 3 March 1995



Spiny-bellied orb weaver (*Micrathena*)

## Spiders!

Exhibition opens in Gallery 3 on March 17  
Members' Preview: Thursday, March 16

Spiders spin a spell over everyone. Reactions to them range from fascination to phobia, and they appear in folklore and legends all around the world. The facts of spider life are as fantastic as fiction, and *Spiders!* explores both.

Visitors will encounter the surprising beauty of spiders — their spines, horns, weird hairy tufts, and intricate body surface designs. The 36,000 identified species possess a glorious gamut of lifestyles that have evolved over 400 million years in habitats ranging from caves to mountains and deserts and even underwater. Spiders are among our foremost allies in the ongoing battle against agricultural insect pests; without them the world would be a very different place — and not a better one.

Spiders have the same problems we do — finding shelter, meeting a mate, raising offspring, and finding food. The exhibition will explore their courtship and reproductive strategies

and their techniques for survival. Their distinctive practice of web-spinning will also be explored, with an in-depth look at the diversity of web architecture and the way that webs are carefully designed to catch different types of prey. (See page 4 for a related article about commonly encountered species of spiders.)

This exhibition, which was made possible through the generous support of Marvel Entertainment Group, Inc., was organized by the National Museum of Natural History, Smithsonian Institution, and circulated by SITES. The exhibition will be on display through June 4.

### Members' Preview

On Thursday, March 16, Participating and Higher Members can attend a preview of *Spiders!* from 4:00 to 8:00 p.m. No tickets are necessary for this free preview; your valid membership card is your ticket of admission.

### Members' Guided Tours

Explore the exhibition in the company of Volunteer Highlights Tour guides, who'll offer fascinating insights into spider life. The tours will take place on Friday, March 31, at 6:00, 6:30, 7:00, and 7:30 p.m. Use the March Members' programs coupon on page 3 to register for the tours, which are free and open only to Participating and Higher Members.

### Spiderama!

Spend a Saturday at the Museum on March 18 at *Spiderama!* The following activities, which are appropriate for ages 5 and up, will take place between 8:40 a.m. and 2:00 p.m. Tickets are \$15 and available only by mail to Participating and Higher Members. Use the coupon on page 5 to register.

**Exhibition Tours.** Guided tours of *Spiders!* will take place at 8:40, 9:00, 9:20, and 9:40 a.m. The tours, which

last about 20 minutes, leave from the entrance to Gallery 3.

**Charlotte's Web.** This delightful film, based on E.B. White's children's classic, will be shown at 10:30 a.m. in the Kaufmann Theater. The 1973 animated film features the voices of Debbie Reynolds, Agnes Moorehead, and Paul Lynde and is 94 minutes long. (Those wishing to see the film only can use the coupon on page 3 to order tickets, which are \$5 for Members and \$8 for non-Members.)

**Spider Workshop.** Join June Myles at a crafts workshop where you'll use your newly acquired spider sense to make an eight-legged friend to take home.

**Spider Chat.** Entomologist Lou Sorkin will talk with Members about spider behavior and ecology in the Linder Theater. He'll show slides and display live spiders (including tarantulas). The crafts workshop and the spider chat will last for 45 minutes each.



## About the Jews of India: Shanwar Telis or Bene Israel

Wednesday, March 22

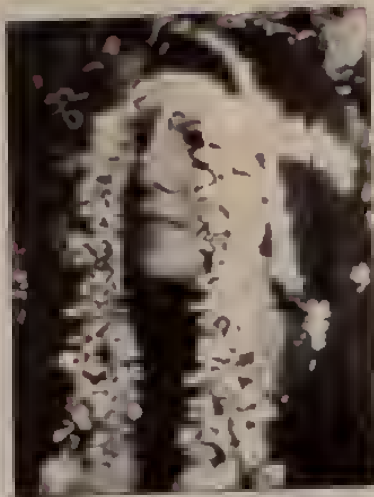
About the Jews of India: *Shanwar Telis or Bene Israel* portrays the Jewish community of Bombay. When the film was completed in 1978, the community numbered about 6,000 — one-quarter of its original size. Most of these Indian Jews emigrated to Israel, not to avoid persecution but on religious grounds.

The Jews of this region lived in small enclaves in the villages around Bombay, working primarily as producers and sellers of palm oil. Their Marathi name, Shanwar Telis (Saturday oil pressers), indicates that they refrained from selling oil on the Sabbath. In addition to keeping the Sabbath, this group maintained the Jewish

New Year, the Day of Atonement, Passover, the Feast of Ingathering, and Purim as well as strict laws of marriage and divorce. In the 1800s, when British rule brought prosperity to Bombay, many of the Shanwar Telis moved to the city. They encountered for the first time Jews from other communities, and as they learned Sephardic Jewish ritual their lives came to resemble those of other diaspora communities.

Filmmaker Johanna Spector will introduce the 40-minute film and answer questions after its screening. This program is two hours long and the third in a series of Spector's ethnographic films.

The program will take



**Bene-Israel wedding:  
The bride**

place at 7:00 p.m. in the Main Auditorium. Tickets are \$7 for Members and \$10 for non-Members. Use the March Members' programs coupon on page 3 to register.

## Clarence S. Bement: The Consummate Collector

Wednesday, March 8

In 1900, J. Pierpont Morgan, Sr., presented the Museum with the mineral collection of Clarence S. Bement, Morgan, who was a Museum trustee, paid \$100,000 for this extraordinary collection of 12,300

specimens, which included 769 species and 500 meteorites.

Joseph Peters, senior scientific assistant in the Department of Mineral Sciences, will show slides of Bement's finest pieces along with highlights

from other mineral collections. A manufacturer of machine tools for railroad and shipbuilding industries, Bement assembled his astounding collection during the golden age of American mineral collecting, the period between the end of the Civil War and the turn of the century.

The program will take place at 7:00 p.m. in the Kaufmann Theater. Tickets are \$6 for Members and \$9 for non-Members. Use the coupon on page 3 to register.

## City Animals: Fact and Myth

Saturday, March 11

Meet some of the creatures of New York City's urban folklore at *City Animals: Fact and Myth*. Naturalist Bill Robinson will introduce live wild creatures that make their homes in New York City, and he'll explain some of their larger-than-life stories.

His guest stars include an opossum, an eight-foot-long alligator, a cormorant, and

that ubiquitous city dweller, the cockroach. He'll also display a pair of New York City raptors, the peregrine falcon and the red-tailed hawk, who'll fly over the heads of the audience.

Robinson, who presents his dramatic wildlife programs to thousands of schoolchildren each year, has appeared at the Museum for the past 15

years. The program will take place at 11:30 a.m. and 1:30 p.m. in the Kaufmann Theater. Tickets are \$5 for Members and \$8 for non-Members. The show is appropriate for all ages, and please note that all attendees, parents and children alike, must have tickets. Use the March Members' programs coupon on page 3 to register.

## Mankiller: A Chief and Her People

Tuesday, March 28

The first woman elected to preside over the Cherokee Nation, Wilma Mankiller is an activist for American Indian causes. She's been instrumental in raising the quality of life for her people, and she'll talk with Members about her philosophy of community self-help.

Mankiller began working for the Cherokee Nation in 1977. She founded its Community Development Department and obtained funds for

many Cherokee-run programs and social services, including several new clinics, daycare programs, and many other projects. She has doubled revenue, services, and employment in ten years.

The basis of Mankiller's philosophy is empowerment of the people at the local level. She strongly encourages the tribe to become more self-reliant; in addition, she devotes much of her time and energy to promoting

state and congressional legislation that protects American Indian concerns.

After the 45-minute lecture, Mankiller will sign copies of her book, *Mankiller: A Chief and Her People*, which will be available for purchase at the program.

The program will take place at 7:00 p.m. in the Main Auditorium. Tickets are \$18 for Members and \$25 for non-Members. Use the coupon on page 3 to register.

## Members' Day Trip to Ellis Island

Sunday, March 26

Members can explore our country's immigrant heritage on a day trip to Ellis Island. Tour guide Joyce Gold will meet Members in Lower Manhattan, where she'll discuss the city's earliest immigrants. Gold will continue her presentation aboard the ferry to Ellis Island and inside the museum's Great Hall. A museum staff member will take participants on a brief behind-the-scenes tour of the building, and there will be ample time for Members to explore on their own.

Participants should be sure to take a look at the special

exhibition *Becoming American Women: Clothing and the Jewish Immigrant Experience, 1880-1920*, which shows that often the first step in assimilating to the new country was a change in dress and the adoption of popular fashions.

The program will take place between 9:30 a.m. and 3:30 p.m. Tickets are \$25 and available only to Participating and Higher Members ages 13 and up.

Use the coupon on page 5 to register, and please note that tickets are available only by mail.

## Members' Workshop on

## Reading and Interpreting Maps and Making Topographic Models

Tuesdays, March 7 and 14

Sidney Horenstein, the Museum's coordinator of environmental public programs, will present a two-part workshop that shows participants how to interpret topographic maps and make their own topographic models.

The first session will focus on the basics of map interpretation: topics include longitude, latitude, scale, and distance. Members will begin to learn how to read and interpret contour lines and how to make profiles of terrain on maps. At the second

session the class will conclude its instruction on interpreting contours and learn the elements of constructing topographic models based on contour lines.

The workshop will take place from 5:30 to 7:30 p.m. Tickets are \$40 and available only by mail to Participating and Higher Members. Participants should bring a sharp pair of scissors to class — all other materials are covered by the fee. Use the coupon on page 5 to register; tickets are available only by mail.

## ROTUNDA

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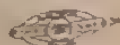
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March 1995

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## An Evening with Jane Goodall

On Tuesday, April 25, primatologist Jane Goodall will return to the American Museum to talk about her life among the chimpanzees at Tanzania's Gombe Stream Research Centre. Since 1960 Goodall has studied the chimps' individual and social behavior patterns; her work represents the longest continuous research project ever conducted on animals in the wild.

The author of six books and the recipient of numerous awards, Goodall remains one of the most renowned and respected scientists in the world. Her efforts not only include protecting wild chimp populations but also improving the lives of captive chimpanzees.

The program will take place at 7:00 p.m. in the Main Auditorium. Tickets are \$22 for Members and \$30 for non-Members; use the coupon on this page to register.



### Members' Museum Tour

## Ages of Rock

Friday, April 28

4:00, 5:30, and 7:00 p.m.

\$16, and open only to Participating and Higher Members

The Indiana limestone of the Theodore Roosevelt Memorial Hall bears the fossilized remnants of a fantastic garden of undersea life — creatures that lived 300 million years ago in a shallow sea that once stretched across the middle of North America before the Age of Dinosaurs.

Sidney Horenstein, the Museum's coordinator of environmental public programs, will lead a fascinating walk around the Museum and

point out the fossils in the building's walls and floors. More than 60 types of stone were used in the different stages of the building's construction, from Portuguese limestone with grayish swirls of prehistoric shellfish to gray marble mottled with the imprint of snails that crept 360 million years ago through a now-vanished sea.

The tours will step outside for an overview of the Museum's geology, geography,

and varieties of architectural styles. Back inside, they'll survey the diversity of stones used in the building's construction and hear about the geological history the stones reveal.

Ages of Rock is an encore presentation of one of our most popular Museum tours, and prompt registration is advised. Use the coupon on page 5 to register, and please note that tickets are available only by mail.

## Zebra Mussels: Alien Invaders

Wednesday, April 12  
7:00 p.m.

Kaufmann Theater

\$6 for Members, \$9 for non-Members

In the late 1980s a freshwater mollusk known as the zebra mussel was introduced into Lake St. Clair of the Great Lakes region from the ballast water of a foreign vessel. The zebra mussel has flourished in North America, spreading throughout freshwater streams and lakes — as far east as the Hudson River, as far south as the Mississippi near New Orleans, and as far

west as Oklahoma.

No one knows as yet the extent of the zebra mussels' impact on the ecosystem, but they could cause major changes in the freshwater systems where they're found. In the meantime, they're serious pests that clog intake pipes such as those of water supply systems and power plants, and their presence has added millions of dollars to

the operating costs of many of these facilities.

Sidney Horenstein, the Museum's coordinator of environmental public programs, will use slides to illustrate the potential problems that zebra mussels represent to the ecosystem and the methods of control that are being studied.

Use the coupon at right to register.

## March Members' Programs Coupon

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Daytime telephone: \_\_\_\_\_

Membership category: \_\_\_\_\_

Total amount enclosed: \_\_\_\_\_

Please make check (if applicable) payable to the American Museum of Natural History and mail with a self-addressed, stamped envelope to: March Members' Programs, Membership Office, American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192. Telephone reservations are not accepted. No refunds or exchanges.

Unless otherwise indicated, no more than eight tickets may be ordered for a program. Participating Members are entitled to four tickets per program at the Members' price. Higher Members are entitled to six tickets, and Associate Members are entitled to one ticket.

**Clarence S. Bement: The Consummate Collector**  
Wednesday, March 8, 7:00 p.m.

Number of Members' tickets at \$6: \_\_\_\_\_

Number of additional tickets at \$9: \_\_\_\_\_

Total amount enclosed for program: \_\_\_\_\_

**City Animals: Fact and Myth.** Saturday, March 11.  
Please indicate a first and second choice.

\_\_\_\_\_ 11:30 a.m. \_\_\_\_\_ 1:30 p.m.

Number of Members' tickets at \$5: \_\_\_\_\_

Number of additional tickets at \$8: \_\_\_\_\_

Total amount enclosed for program: \_\_\_\_\_

**Charlotte's Web.** Saturday, March 18, 10:30 a.m.

Number of Members' tickets at \$5: \_\_\_\_\_

Number of additional tickets at \$8: \_\_\_\_\_

Total amount enclosed for program: \_\_\_\_\_

**About the Jews of India: Shanwar Telis or Bene Israel.** Wednesday, March 22, 7:00 p.m.

Number of Members' tickets at \$7: \_\_\_\_\_

Number of additional tickets at \$10: \_\_\_\_\_

Total amount enclosed for program: \_\_\_\_\_

**Mankiller.** Tuesday, March 28, 7:00 p.m.

Number of Members' tickets at \$18: \_\_\_\_\_

Number of additional tickets at \$25: \_\_\_\_\_

Total amount enclosed for program: \_\_\_\_\_

**Members' Guided Tours of Spiders!** Friday, March 31.  
Please indicate a first, second, and third choice.

\_\_\_\_\_ 6:00 p.m. \_\_\_\_\_ 7:00 p.m. \_\_\_\_\_ 7:30 p.m.

Number of free Members' tickets

(no more than 2, please): \_\_\_\_\_

**Zebra Mussels.** Wednesday, April 12, 7:00 p.m.

Number of Members' tickets at \$6: \_\_\_\_\_

Number of additional tickets at \$9: \_\_\_\_\_

Total amount enclosed for program: \_\_\_\_\_

**Members' Tours of Images of Power.** Friday, April 21. Please indicate a first, second, and third choice.

\_\_\_\_\_ 6:00 p.m. \_\_\_\_\_ 6:30 p.m. \_\_\_\_\_ 7:00 p.m. \_\_\_\_\_ 7:30 p.m.

Number of free Members' tickets

(no more than 2, please): \_\_\_\_\_

**An Evening with Jane Goodall**

Tuesday, April 25, 7:00 p.m.

Number of Members' tickets at \$22: \_\_\_\_\_

Number of additional tickets at \$30: \_\_\_\_\_

Total amount enclosed for program: \_\_\_\_\_

**NOTE:** Orders received less than ten days before show dates will be held for pick-up at the door on the day of the program if tickets are still available. If an event is sold out, you will be advised in writing or by phone and your check will be returned.



# Spiders at Home

Spiders! Stories, legends, and myths abound where these creatures are concerned. More than 36,000 different kinds of spiders have been described by scientists around the world, and there are probably at least as many yet to be discovered. But how many kinds of spiders are our neighbors? Occasionally we see spiders while cleaning around the house or upon taking a book from an upper shelf. Do we have spiders living full time in our homes? Indeed we do. Some spiders not only live with us but travel with us as well. Let's take a look at some of them.

The cobwebs in the corners of rooms are chiefly the work of the house spider, whose scientific name is *Achaearanea tepidariorum*. It's from a group called comb-footed spiders. A house spider sometimes measures over a quarter of an inch in length but may be much smaller. Its first pair of legs are nearly three times the length of its body, and its color varies from dirty white to almost black. Most comb-footed spiders catch their prey in webs — irregular networks of threads that are usually found in sheltered places. House spiders feed by night or day, snaring their prey on strands coated with a sticky secretion that holds the victim until the spider arrives.

Other comb-footed spiders are the boreal comb-footed spider and the triangulate comb-footed spider (in Latin, *Steatoda borealis* and *Steatoda triangulosa*). Both are distinctive brownish spiders with a white line running around the front half of the abdomen. They make a flat, horizontal sheet in the middle of their tangle webs, and ground-dwelling species place taut silk lines running down from the sheet. The lines have globules of adhesive near the bottom and a weak link where the lines actually touch the ground. When an ant or small cockroach gets stuck on one of these sticky globules, it starts to struggle to free itself. The line suddenly breaks at the weakest point and hoists the insect into the air, where its wriggling brings it into contact with more glue. Then the spider wraps the insect in sticky silk.

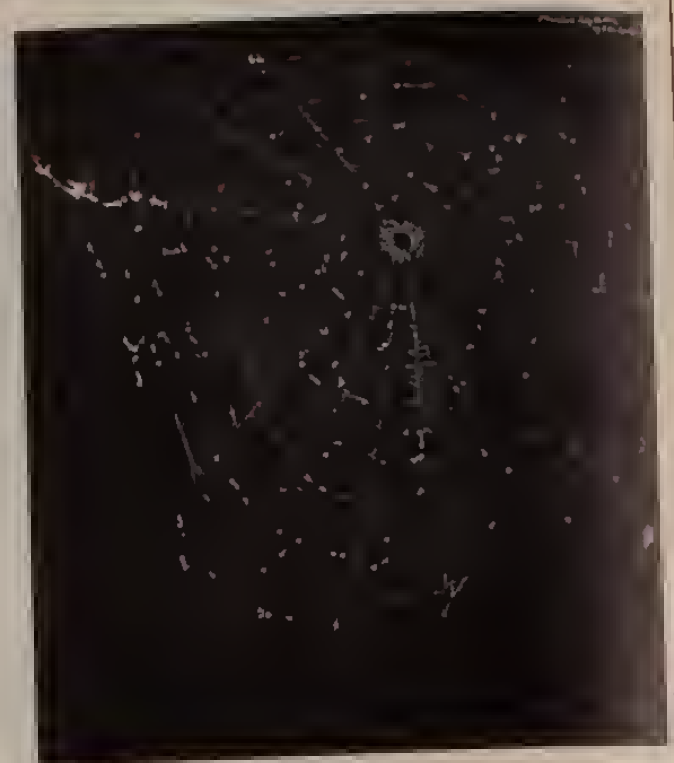
In the corners of the basement, at low levels, and in garages, the long-bodied cellar spider, or *Pholcus phalangioides*, makes its web. This cosmopolitan spider is common in America, Europe, and Asia. It's large and pale with legs so long that it's often confused with the daddy long-legs, or *Opiliones*. A house-dwelling spider of the northern hemi-

sphere, the daddy long-legs is also found in rock crannies and caves in the warmer parts of its range.

The cellar spiders are a family without separate sheet webs, only a tangle of lines. The spider waits at the top of the structure in the darkest corner of the web, and in the evening it descends to the middle of its tangle and waits in the inverted posture that's typical of the aerial weavers. If the web is touched and the spider knows that the vibrations in the strands are not caused by prey, it starts to gyrate its body at great speed while retreating to the innermost part of its silky labyrinth. This startling behavior is presumably an attempt to dislodge or frighten the intruder. Cellar spiders have a wide range of prey, including moths, sow bugs, and other spiders, and when the prey gets entangled *Pholcus* comes bounding along and then turns its back. As you begin to wonder whether this is a sign of rejection, you see the long legs throwing fine strands around the prey until the latter is completely wrapped up. The package is gripped by the claws on the spider's back legs and dragged off into the depths of the web, where it is devoured.

The biggest webs in the house are made by the funnel-web weaver spiders, which usually make platform webs with a tube or funnel leading from the center or one edge. Another common house spider is the barn spider, or *Tegenaria domestica*. The biggest of all house spiders (females grow as long as an inch), barn spiders are pale yellow with a number of irregular gray spots, and their webs have a much larger sheet than those of their domestic cousins. The sheet is held in place by an extensive superstructure of tangled lines that also function as a trap for low-flying or leaping insects, which are caught in mid-flight and drop onto the sheet. Once the insect is exhausted by its struggles, the spider runs easily across the web and gives the insect a venomous bite on one of its legs. The spider backs off and then repeatedly attacks from different angles. Once the poison has begun to take effect and the insect's movements have subsided, the spider grips it in its "jaws," pulls it back to the mouth of its tube, and begins to enjoy its meal.

The most peculiar of the house spiders is the spitting spider, or *Scytodes thoracica*. This handsome spider has a yellowish coat marked with small black spots. Its original habitat is under stones, in rock fissures, and in deep vegetation in southern



Europe; today it's found in houses all over Europe, and it has even been transported to America and Australia, where it has become a domestic spider.

The spitting spider has developed a hunting technique not found in any other spider group. When its prey — usually flies — are sensed at a distance of one inch, the spider turns to face them, gives a convulsive jerk of its body, and squirts a viscous gum from its "jaws." The victim is securely entangled and stuck to the surface by the gum, which is laid down by the rapidly oscillating "jaws" in closely spaced parallel bars of ten, twenty, or more. The spitting and entangling are almost immediate, and the spider moves slowly forward to claim its prey. The viscous liquid is produced in highly enlarged venom glands. Although these glands are used mostly for the production of viscous liquid, they do produce a quantity of venom, and spitting spiders use this special weapon for both attack and defense.

Now we know six new companions in our homes. They're not only living with us, they're helping us by hunting flies, roaches, and other uninvited guests. Don't kill spiders in your house — observe them! Spiders' lives are tremendously interesting.

## From the Volunteer Department

### Volunteers Needed

*Expedition: Treasures from 125 Years of Discovery* is well under way and is a great success for both the Expedition volunteers and the visiting public. There are still a few spaces left for volunteers. Call Donna Sethi at (212) 769-5523 for additional information.

We are also looking for a group of dedicated and motivated individuals to train as explainers in the new dinosaur halls. The program will include formal training classes, but you must learn additional material on your own. Call Erica Okone at (212) 769-5562 for an interview, which will be held in March, and training will begin in April.

### Festival of Life Saturday, April 8

A team of Museum volunteers will present a three-

chapter overview of life on earth.

These free tours are 90 minutes long each.

Chapter 1: "In the Beginning." Hear the story of the origin of the universe, the formation of earth, and the processes that led to life as we know it.

Chapter 2: "Circle of Life." Travel our anthropology halls to learn how disparate cultures view and interpret life.

Chapter 3: "Basic Instinct." How do earth's inhabitants reproduce? We will conclude our story with the challenge confronting *Homo sapiens*: how to preserve and protect life for ourselves and future generations.

Chapter 1 takes place at 2:00 p.m.; chapter 2 at 4:00 p.m.; and chapter 3 at 6:00 p.m. Call (212) 769-5566 to preregister.

Tours are limited to 35 people; priority will be given

to those who register for all three tours.

### Artists and Explorers of the American Museum — Time Well Spent

Join a series of explorations focused on some of the personalities who have made important contributions to the Museum's field research and the vast invisible network of support behind the scenes. Since March is Women's History Month, we'll focus on Osa Johnson, Mary Dickerson, Margaret Mead, and women scientists at the Museum today.

The first of this series will be presented on Friday, March 10, at 6:00 p.m. and will be repeated on March 25 at 5:30 p.m. Tours will meet at the second-floor Rotunda. The tours are free but reservations are required; call (212) 769-5566. Limit 30 people per tour.

### Educational Forum

## The Endangered Species Act

Thursday, April 13  
7:00 p.m.

What do the peregrine falcon, piping plover, and bald eagle have in common? They are all endangered or threatened species living within New York City. Thanks to the

federal Endangered Species Act, a landmark law, these and other species are still with us. Learn about why keeping the act strong is critical, not only for animals and plants but also for the health of the environment and ourselves.

The panel discussion will be followed by a question-and-answer period. This free program, which will take place in the Linder Theater, is sponsored by the Endangered Species Coalition. Call (212) 769-5750 for further information.

## Eco Impact Forum

On Thursday, March 23, at 6:30 p.m., lecturer Walter Sage presents *Environmental Impact on Shell Collecting in the New York Area*. Sage is a senior scientific assistant at the American Museum.

This free program is part of an ongoing series of lectures that focus on environmental issues of concern to the greater metropolitan area. No tickets or reservations are necessary for the one-hour



lecture, which will take place in the Linder Theater. For additional information about this program call (212) 769-5750.



## Spring Break Workshops

April 18-20, 10:30 a.m.-noon  
\$18, and open only to Participating and Higher Members  
Ages 6-9

It's just a few more weeks until spring. Perhaps the kids feel their fancies lightly turning to thoughts of bugs — and perhaps not. Naturalist June Myles will host a series of children's workshops on bugs and other themes during the week that the small fry are on vacation. Use the coupon on this page to register, and please note that tickets are available only by mail.

**Ugh! A Bug!**  
Tuesday, April 18

Imagine — for every pound of us there are 200 pounds of them. Maybe after transforming to a "bug" (via a mask each of us will make), we'll think a little more highly of these fascinating creatures. We'll learn about their habits, where they live, what they eat, how they talk, and how they get along with each other and with us. We'll also check out the new *Spiders!* exhibition to discover why a spider is not an insect.

**By the Power of Their Dreams**  
Wednesday, April 19

Learn the ways of the Plains Indians through their medicine shields. The most important of a Plains Indian warrior's possessions, shields were made of buffalo hide. Was their use simply a matter of physical safety? We'll look at the lives of Plains Indians and see how shields served them. All participants will use their own visions to craft a protective shield to take home.

**125 and Still Counting**  
Thursday, April 20

We'll fast-track through 125 years of Museum expeditions and collections by exploring the exhibition *The First 125 Years*. Then each of us will create a souvenir pop-up book to commemorate some of the highlights of the Museum's history. Come join the 125th party!

**April Showers**  
Friday, April 21  
6:30-8:00 p.m.  
Ages 16 and older  
\$35, and open only to Participating and Higher Members

Let a smile be your umbrella. . . . When it rains it pours. . . . After rain comes sunshine. . . . One already wet does not fear the rain. However you feel about rainy days, tell it to the world at this workshop, where you'll design and paint an umbrella that says it all. We'll provide the umbrella and the paints; you provide the sentiment.

Use the coupon on this page to register, and please note that tickets are available only by mail.



## Autumn Train Trips

Discovery Tours has scheduled two private train journeys for September — one along the ancient Silk Road and one through southern Africa.

From September 2 through 18, board the *Pride of Africa* to experience a safari through southern Africa, a region of remarkable diversity: its rugged mountains give way to lush farmland and vast plains, waters thunder into steep gorges covered with rain forest; and tremendous herds of game roam the savanna. From Johannesburg, fly to Victoria Falls and take the train to explore Zambezi National Park, Kruger National Park, Pretoria, and Cape Town. There is an option for a pre-trip excursion to Botswana, with stays in tented camps in the Okavango Delta and Moremi Game Reserve.

From September 11 through 30, travel through China and Central Asia on two private trains — the *China Orient Express* and the *Russia* — to retrace the fabled

Silk Road from Imperial China across the steppes of Central Asia to the bazaars of Samarkand and Bukhara, cities as old as Babylon and Rome. The tour starts in Beijing; stops include Xi'an, the beginning of the Silk Road and site of the ongoing excavation of the Emperor's terra-cotta soldiers; a Yellow River cruise to the Binglingsi Buddhist Caves; Jiauguan's Ming fort and western terminus of the Great Wall; Dunhuang, with its spectacular sand dunes and the Mogao Caves, 500 grottoes that house Buddhist paintings and statuary; Alma Ata, in newly independent Kazakhstan; and Samarkand, occupied by both Genghis Khan and Tamerlane.

Prices (per person, double occupancy) are \$10,465 for the southern Africa trip and \$8,990 for the Ancient Silk Road tour. For further information, call Discovery Cruises/Tours at (800) 462-8687 or in New York State at (212) 769 5700, Monday through Friday, from 9:00 a.m. until 5:00 p.m.

### Members' Adult-Child Workshop

## The Mouse in the Matzoh Factory

Sunday April 9  
11:00 a.m., 12:30 and 2:00 p.m.  
\$16 per couple, and open only to Participating and Higher Members  
Ages 5-8



The mouse is back! Next month he'll make his sixth annual appearance at the Museum for a special Passover program of songs, laughter, and matzoh making. Author Francine Medoff will read her story *The Mouse in the Matzoh Factory*, and then each child will help her mix the dough for matzoh. Participants will take the dough home with them to bake in their own kitchens.

A former nursery school teacher, Medoff is a working artist and a part-time administrator at the Hebrew School of Temple Beth Israel in Port Washington, New York. The program lasts approximately 45 minutes and is appropriate for children between the ages of 5 and 8. Please note that all attendees must have tickets, which are available only by mail. Members are limited to four tickets per request for this popular show; use the coupon on this page to register.

## Members' Cruise on Long Island Sound

Sunday, May 7, Noon-4:00 p.m.  
\$55 for Members, \$65 for non-Members

Spend a spring afternoon speeding along Long Island Sound on this Members' cruise. Participants will travel from the foot of Wall Street up the East River, through Hell Gate, and beneath the Throgs Neck Bridge into the sound. They'll view both the

New York and Connecticut shorelines on the way to New Haven Harbor and back.

Sidney Horenstein, the Museum's coordinator of environmental public programs, will host the cruise and point out landmarks along the way. He'll discuss the origins

of the sound, the geology of the shorelines, and the history of some of the towns.

Bring a bag lunch; refreshments are available on board. Use the coupon at right to register, and please note that tickets are available only by mail.

**Tours, Day Trips, and Workshops.** Use this coupon to register for the workshop *The Mouse in the Matzoh Factory* (indicate a first and second choice of times) and the workshop on map and model making, the tour *Ages of Rock* (indicate a first and second choice of times), the day trip to Ellis Island, the *Spring Break Workshops* (indicate title and date), *Spiderama!*, and the *Members' Cruise on Long Island Sound*.

Name(s) of program(s): \_\_\_\_\_

\_\_\_\_\_

Number of tickets and price (please indicate which program if more than one): \_\_\_\_\_

\_\_\_\_\_

Total amount enclosed: \_\_\_\_\_

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Daytime telephone: \_\_\_\_\_

Membership category: \_\_\_\_\_

Please make check payable to the American Museum of Natural History and mail with a **self-addressed, stamped envelope** to: **Tours and Workshops, Membership Office, American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192.**



## Evening and Afternoon Lecture Series

### Sacred Deeds: Native American Land Conservation

Monday, March 20  
7:00-8:30 p.m.  
\$11 for Members, \$12 for non-Members

Ronald S. McNeil, a member of the Hunkpapa band of the Lakota Sioux Nation and president of the American Indian College Fund, discusses differences in attitudes toward land and private ownership that are rooted in the Native American sense of connection with the earth, stewardship, and custodial responsibility. McNeil contends that Native American traditional values are particularly relevant in addressing some of the problems that beset American society.

### Toward the Arctic Ocean and the North Pole

Four Wednesdays, March 1-22  
7:00-8:30 p.m.  
\$27 for Members, \$30 for non-Members

The Arctic's harsh climate and terrain have presented severe challenges to explorers. In this four-part series Kenneth A. Chambers describes the struggles and triumphs of explorers drawn to the Arctic region in efforts to reach the North Pole or to discover a northern sea route. Chambers is an author, a lecturer in zoology and explorations, and a scholar of polar history.

March 1: *Northern Seas and Arctic Explorations: A History of Discovery*

March 8: *In Search of the Franklin Expedition*. A haunting mystery of a lost venture.

March 15: *Amundsen and Ellsworth Conquer the Arctic*. The Northwest Passage and polar flights.

March 22: *Ring the Pole: The Northern Sea Route's Northeast Passage*. Historical perspectives, the development of the Russian icebreaker fleet, and the Northern Sea Route Project.

### Challenges of Gorilla Conservation

Two Thursdays, March 30 and April 6  
7:00-8:30 p.m.  
\$18 for Members, \$20 for non-Members

The highly endangered mountain gorillas, which are thought to number only 650, live in the rain forest ecosystems of Rwanda, Zaire, and Uganda. In this two-part, slide-illustrated overview, H. Dieter Steklis discusses the long-term conservation of mountain gorillas and their habitat.

Former director of the Karisoke Research Centre, Steklis led the evacuation of Karisoke when the Rwandan war erupted in 1993. He is currently the executive director of the Dian Fossey Gorilla Fund and a professor of anthropology at Rutgers University.

### Geology for Travelers

Three Tuesdays, March 21-April 4  
7:00-8:30 p.m.  
\$22.50 for Members, \$25 for non-Members

This three-part, slide-illustrated series introduces basic concepts in geology and offers travelers suggestions about applying these concepts to the places they visit. A review and classification of the major landscapes of the earth and their underlying geological structure completes the survey. Geologist Sidney Horenstein, the Museum's coordinator of environmental public programs, will also discuss ways to obtain information about the geology of specific areas.

March 21: *Basic Geological Principles*

March 28: *Landscape Classification*

April 4: *Geological Structures*



Ronald S. McNeil speaks on March 20



Museum Mystery Theater:  
"The Mask of Suspicion"



Toward the Arctic Ocean and the North Pole



## Eight Unusual Northeastern Indian Lives

Four Mondays, March 27–April 17  
7:30–9:00 p.m.  
\$27 for Members, \$30 for non-Members

National Park Service archeologist Robert S. Grumet will use maps, illustrations, documents, and oral traditions to tell the stories of eight lesser-known Indian men and women as chronicled by European colonists in and around the Greater New York area during the 1600s and 1700s. The profiles of these individuals reflect the range of responses to the problems and opportunities that arose through contact with other Indians and European colonists.

March 27: *Indian Diplomats and Warriors in New Netherlands and Early New York*. The careers of Hackensack sachem Oratam and Massapequa leader Tackapousha are reviewed and interpreted. Both men led their people in uprisings against colonists during the 1640s and 1650s; after their failure to drive away the Europeans, they struggled to compromise with their increasingly powerful and numerous neighbors.

April 3: *Women Leaders*. This lecture focuses on the careers of two powerful and all-but-forgotten women leaders. Mamanuchqua was an influential Esopus Indian sachem who lived in the mountainous Shawangunk country and led her people during the late 1600s, when Dutch, Huguenot, and English settlers flooded into Ulster County, New York. Farther north in Massachusetts, the Saconnet squaw sachem Awashunkes guided her tribe through the difficult years surrounding King Philip's War, which was fought from 1675 to 1676.

April 10: *Culture Brokers and Go-Betweens*. Skilled intermediaries who were conversant in both Indian and European languages and customs served as go-betweens among the different cultures of the colonial Northeast. This lecture will examine two of these figures: Suscaneman, a sachem of Long Island's Matinecock tribe, who signed more than one hundred deeds to lands in and around the town of Oyster Bay between 1655 and 1700; and Moses Tunda Tatamy, a New Jersey-based Delaware Indian who traveled widely through the frontier of the eighteenth century as an interpreter, guide, messenger, and diplomat.

April 17: *Peacemakers and Warriors on the Eighteenth-Century Frontier*. The lives of two prominent eighteenth-century Mohawk warriors and diplomats are the focus of this lecture. Tiyanogan, known to the English as King Hendrik, served his people as a statesman and warrior for nearly half a century. A skillful and wily diplomat, he became the friend and confidant of many of the most prominent figures of his age. His younger cousin Thyendenegaa, better known as Joseph Brant, became a brilliant leader of Indian and European troops during the Revolutionary War. After the war, he led many of his people to new homes in Ontario's Six Nation Reserve.

## Evenings with the Library's Special Collections

Four Tuesdays, March 28–April 18  
7:00–8:30 p.m.  
\$27 for Members, \$30 for non-Members

The American Museum's library is one of the world's great natural history research collections. Nina Root, library director, and Joel Sweimler, manager of special collections, will discuss and show some of the library's great treasures and rarities. Each evening will begin with a brief talk accompanied by slides or films. Participants will then view rarely seen materials from the collections while Root and Sweimler discuss the items' history and significance.

March 28: *Rare Books*. A history of science and world exploration is traced by the collection's rare and beautiful colored atlases and original water-colors.

April 4: *Films*. The library has saved and restored over 600 natural history films, including a rare 1915 color film and 1920s footage of Africa, Asia, and the Americas. Selections will be shown and discussed, and one rare film will be shown in its entirety.

April 11: *Photographs*. The photo collection contains approximately one million images that date from 1840 and document now-vanished or altered societies, fauna, and landscapes.

April 18: *Art, Memorabilia, and Archives*. The collection of art and memorabilia comprises more than 2,000 items, and the Museum's archives includes some eighteenth-century documents. This presentation will feature paintings and sculptures, Teddy Roosevelt's rifle, and letters signed by legendary figures.

## Mountain Wildflowers of the North

Four Thursdays, March 2–23  
7:00–8:30 p.m.  
or  
Four Mondays, March 6–27  
2:30–4:00 p.m.  
\$27 for Members, \$30 for non-Members

Wild areas of coniferous forest, alpine tundra, and wetlands blanket many of the mountains of Alaska, the Pacific Northwest, and New England. Their flowers include complex orchids, colorful lilies, dwarf arctic creepers, and ancient cushion plants. These slide-illustrated lectures will examine northern wildflowers, focusing on their identification and ecology. William Schiller, lecturer in botany in the Department of Education, presents this series.

Week 1: *Arctic Flowers on the Mountains of Alaska and the Pacific Northwest*

Week 2: *New England's Arctic Flora: Mountaintop Ice Age Relics*

Week 3: *Wildflowers of Northern Coniferous Forests: Floral Survival Strategies under Spruce and Fir*

Week 4: *Wildflowers of Northern Boglands: Bog Orchids, Labrador-tea, and Associated Flora*

## Spiders: Lifestyles of the Small and Hairy

Tuesday, March 21  
7:00–8:30 p.m.  
\$11 for Members, \$12 for non-Members

There is probably at least one spider living in every dwelling in the world. Spiders have spent the last 380 million years adapting to the point where they can live nearly everywhere on land, and some of them dwell in fresh water.

Simon Pollard, a zoologist from the University of Canterbury, New Zealand, is a researcher and photographer of spiders and insects. In this slide-illustrated talk he'll lead a tour into the world of spiders — their secrets, courting styles, family-planning strategies, and food capture and feeding behaviors. This talk is presented in conjunction with the exhibition *Spiders!*, which features some of Pollard's photographs.

## The Films of David MacDougall

Friday, March 31, and Saturday, April 1  
7:00–9:00 p.m.  
\$18 for Members, \$20 for non-Members

Celebrated documentary filmmaker David MacDougall discusses his more than 30 years in ethnographic filmmaking in this two-part series. On each evening MacDougall will screen one of his award-winning works, and the viewings will be followed by discussions.

Friday's featured film is *Photo Wallahs* (1991; 60 min.), which portrays India's professional cameramen. This film won the Golden Gate Award at the San Francisco Film Festival. *A Wife Among Wives* (1981; 75 min.) will be screened on Saturday. In this film, which was featured in the Margaret Mead Film Festival, Turkana women of northern Kenya share their ideas about marriage and polygamy.

## Special Music and Theater Events

### Classical Music and Dance of Korea

Wednesday, March 29  
7:30 p.m.  
Main Auditorium  
\$6 for Members, \$8 for non-Members

The Museum opens its Unity Through Diversity spring series with the only New York appearance of a 10-member ensemble of Korea's leading classical musicians and dancers, including National Living Treasure Chung Jae-Guk. The program's wide range of selections will reflect a 2,000-year history that ranges from ancient Chinese court dances and ritual music to classical works from Korean Confucianism, royal court music, and processional music rarely performed outside of Korea.

### An Introduction to Classical Music and Dance of Korea

Tuesday, March 28  
7:00 p.m.  
Kaufmann Theater  
Free to concert ticket holders

A free slide-illustrated lecture and demonstrations on Korean music and dance will be held in conjunction with *Classical Music and Dance of Korea* (see above). This program is free to the first 300 individuals holding a concert ticket.

These programs are made possible through the generous assistance of the Korean Ministry of Culture (Seoul) and the Korean Performing Arts Institute, Inc. (USA).



Geology for Travelers



Classical Music and Dance of Korea



## Museum Mystery Theater: "The Mask of Suspicion"

Monday, March 20; Wednesday, April 19;  
Friday, May 5  
7:00-8:30 p.m.  
\$22.50 for Members, \$25 for non-Members

The Education Department, in conjunction with Manhattan Rep. Company, presents a fascinating tale of distrust, apprehension, and evil. *The Mask of Suspicion* uses a classic Museum gallery to explore the traditions and culture of a fictional tribe, the Northwest Coast's Bella Mon Indians.

Several Museum employees and visitors have had strange accidents in the gallery where an ancient ceremonial mask is displayed. Could the mask be responsible? A famous anthropologist will lecture on the origins of the Bella Mon masks and perhaps explain some of these bizarre events. A wine-and-cheese reception is part of the intrigue. For information call (212) 769-5310.

## Workshops, Field Trips, and Walking Tours

### Animal Drawing

Eight Tuesdays, March 7-April 25  
7:00-9:00 p.m.  
\$105 (no discount for Members)  
Materials not included  
Limited to 25 people

Join a Museum artist to sketch subjects such as gazelles on the African plains and timber wolves in the snowbound North. After the Museum has closed to the public, students gather to draw animals from the famed habitat groups as well as mounted specimens. Stephen C. Quinn, senior assistant manager in the Exhibition Department, discusses drawing technique, animal anatomy, and the role of the artist at the Museum. Individual guidance is given to each participant, whether beginner or experienced artist.

March 7: Hall of African Mammals (second and third floors): Introduction

March 14: Hall of Early and Late Fossil Mammals: Skeletal system

March 21: Hall of Early and Late Fossil Mammals: Muscular system

March 28: Hall of North American Mammals: Charcoal drawing

April 4: Hall of African Mammals (second and third floors): Animal locomotion

April 11: Hall of Early and Late Fossil Mammals: Charcoal drawing

April 18: North American Mammals and Hall of Ocean Life: Protective coloration

April 25: North American Birds: Bird anatomy

## Spring Flowers and Trees in Central Park

Wednesday, April 12; Saturday, April 29;  
and Saturday, May 6  
9:00-11:00 a.m.  
Limited to 25 people  
\$7 per walk

A two-hour morning walk in Central Park observes botanical signs of spring. Participants will explore Strawberry Fields, Hemshead, and the Shakespeare Garden and watch these areas change with the season. They'll learn about plant identification and ecology from William Schiller, lecturer in botany in the Department of Education.

The walks will start at 72nd Street and Central Park West.

## Spring Bird Walks in Central Park

Tuesdays, April 4-May 30; 7:00-9:00 a.m.  
and Thursdays, April 6-June 1; 9:00-11:00 a.m.  
\$7 per walk or \$50 for either series (no discount for Members)  
Limited to 25 people

Observe the spring arrival of birds in Central Park with naturalists Stephen Quinn (Tuesdays) and Harold Feinberg (Thursdays). Learn how to identify birds by field marks, habitat, behavior, and song. Participants meet across the street from the Museum on the northeast corner of Central Park West and 77th Street. Pre-registration is required; tickets may be purchased for individual walks or for the series.

## Cape Cod Whale Watch Weekend

Friday-Sunday, May 19-21  
\$400 (per person, double occupancy; no discount for Members)  
Limited to 45 adults

This weekend is filled with opportunities to observe and learn about Cape Cod's natural and cultural history. Trip leaders include Brad Burnham, a natural science instructor in the Education Department, and Stephen Quinn, naturalist and avid birder.

The weekend's schedule includes three four-hour whale watch cruises by private charter, a lecture by leading whale expert Dr. Stormy Mayo, a guided birding walk along the trails of Wellfleet Bay Wildlife Sanctuary, a stop at Mystic Aquarium, and a chance to explore Provincetown or stroll along its beach.

Fee includes transportation, two nights' lodging, meals, boat cruises, lectures, and admission to the sanctuary and aquarium.

## Fall Cape May Birding Weekend

Friday-Sunday, October 20-22  
\$350 (per person, double occupancy; no discount for Members)  
Limited to 45 adults

Join Museum naturalists for a weekend of birding in one of the world's bird-watching hot spots: Cape May, New Jersey. The trip will include naturalist-led walks, informal lectures, a stop at the famed Brigantine National Wildlife Refuge, and two boat trips, during which participants will spot seabirds and possibly whales and dolphins. The fee includes accommodations, food, and transportation. Trip leaders are Brad Burnham and Stephen Quinn.

### 1995 REGISTRATION COUPON

Please make check payable to the American Museum of Natural History and mail with a **self-addressed, stamped envelope** to: Lecture Series, Education Dept., American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192.

Please note that credit-card payment is now available and that registration will be delayed if daytime phone number or stamped, self-addressed envelope is not included. For further information call (212) 769-5310.

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Daytime telephone: \_\_\_\_\_

Membership category: \_\_\_\_\_

Course	Day	Hour
_____ No. tickets	_____ Price (each)	_____ Total

Course	Day	Hour
_____ No. tickets	_____ Price (each)	_____ Total

Total amount enclosed: \_\_\_\_\_

Method of payment: ☐ Check ☐ MC ☐ Visa

Account no.: \_\_\_\_\_

Expiration date: \_\_\_\_\_  
Month/Year

## Special John Burroughs Programs



John Burroughs (1837-1921) was a leading literary critic and a pioneer in the new school of nature writing. The John Burroughs Association, Inc., presents programs and talks to preserve places associated with Burroughs' life and maintains Slabsides, the rustic cabin where he studied nature and wrote some of his essays.

### Annual Meeting and Award Ceremony

The John Burroughs Association's annual meeting will

take place on Monday, April 3, from 10:30 to 11:45 a.m. in the Leonhardt People Center. The meeting will be followed by the annual lunch and book award ceremony, which will take place from noon until 2:00 p.m. in the Leonhardt People Center.

The association, which was founded and is still based at the American Museum, will announce the awards for its sixty-eighth annual literary medal award competition for exceptionally fine nature writing. Awards will also be announced for the sixth annual

competition for the John Burroughs List of Nature Books for Young Readers and the second annual competition for an Outstanding Published Natural History Essay.

### Slabsides Day and Centennial Celebration

Join the friends of the John Burroughs Association on Saturday, May 20, for the centennial celebration "Slabsides: The First Hundred Years." This special event, which will begin at noon, is presented in honor of the cabin's one hundredth anniversary.

Slabsides is located in West Park, New York, on the Hudson River, 80 miles north of New York City and 10 miles south of Kingston. For more information call (212) 769-5169.

## DINOSAURS ARE THE LATEST THING FOR LUNCH!

Come try **DINER SAURUS**, a fun-loving, fast service eatery that literally glows with neon dinosaurs!

Featuring our  
**MEAL-O-SAURUS**  
**DINO SIPPERS**  
**DINO FRIES**

And our latest addition:  
**LUCKY NICKEL**  
**BUFFALO WINGS**

Hours: 11 am - 4:45 pm, Mon. - Sun.  
On lower level, next to the Garden Cafe.

DINER SAURUS is available for birthday parties. Please contact our manager at 874-3131.





# Children's Workshops

The following workshops are presented by the Department of Education. Use the coupon below to register. Children should bring a bag lunch for workshops lasting three hours or longer. If you have any questions call (212) 769-5310.

## Inside Your Body

Ages 7, 8, and 9  
Sunday, April 2  
10:30 a.m.-1:30 p.m.

What's underneath your skin? In this program children listen to their heartbeats, examine X-rays, and find out what makes their bodies work. Presented by Dina Cukier Schlesinger, science teacher at PS 140, Manhattan. \$25.

## The Big Tree

Ages 8, 9, and 10  
Saturday, April 8  
10:30 a.m.-1:30 p.m.

This workshop describes some of the trees featured in Museum exhibits. The instructor will draw trees and explain how he created a children's book based on a huge sugar maple growing in his neighbor's yard. Children will receive help in drawing their own pictures of trees, birds, and mammals. Presented by Bruce Hiscock, author and illustrator of *The Big Tree* and other children's books. \$25.

## Drawing Early Fossil Mammals

Ages 8, 9, and 10  
Sunday, April 2  
10:30 a.m.-1:30 p.m.

Children learn the rudiments of drawing with pen and ink, watercolor techniques, and contour drawing. They will study basic mammal anatomy and sketch in the Hall of Early Fossil Mammals. Presented by An-

gela Tripi-Weiss, art director at PS 87, Manhattan. \$25.

## Fun with Fossils

Ages 7, 8, and 9  
Sunday, April 30  
10:30 a.m.-1:30 p.m.

This workshop steps back in time to show how life developed on earth. Children discover how fossils are found and the ways in which fossils offer clues to the past. They'll excavate fossils from a "dig," visit fossil exhibits and dig sites, and make their own fossils. Presented by Anita Steinhart, teacher at PS 23, Queens. \$25.

## Undersea Neighbors

Age 4, each child accompanied by an adult  
Sunday, May 21  
10:30 a.m.-11:30 a.m.

Using specimens in an interactive story, children will learn about a variety of marine animals. Song, dance, and a short film will highlight marine animals. A take-home art project and visit to the Hall of Ocean Life are included. Presented by Dayna Reist, former instructor at the New York Aquarium for Wildlife Conservation. \$25.

## Japanese Doll-Making

Ages 8, 9, and 10  
Sunday, May 7  
10:30 a.m.-1:30 p.m.

In Japan dolls have their own festival. Heirloom dolls represent the imperial family and samurai protectors. Japanese craftsmen also make simple wooden dolls, paper dolls, and elaborate dolls dressed in beautiful kimonos. Learn about the variety of Japanese dolls and make your own to display and bring good luck. Presented by Karen Kane, senior instructor in the Education Department. \$25.

## Wonderful Whales

Ages 8 and 9  
Sunday, May 7  
10:30 a.m.-1:30 p.m.

Whales, the largest animals on the planet, live mostly below the surface of the sea. Some approach 100 feet in length, weigh more than 140 tons, and devour eight tons of food a day. Children learn about the natural history of whales and why they are hunted using films, songs, games, and a visit to the Hall of Ocean Life. Presented by Meryll Kafka, assistant director of education at the New York Aquarium for Wildlife Conservation. \$25.

## Windowsill Garden

Age 6, each child accompanied by an adult  
Saturday, May 20  
10:30 a.m.-12:30 p.m.

Start a salad on your windowsill. Plant lettuce, roots, and herbs along with some flowers to decorate your table. Presented by Uta Gore, senior Museum instructor, and Jay Holmes, assistant in science for multicultural education, Education Department. \$25.

## My First Nature Book

Ages 8 and 9  
Sunday, May 21  
10:30 a.m.-2:30 p.m.

Children create storyboards about urban animals and their habitats and learn how to bind their original accordion books. Presented by Bonita Grandal, teacher and facilitator for New York State Project Wild. \$25.

## Learning to Draw through Movement

Age 5, each child accompanied by an adult  
One Sunday, April 23 or 30 or May 7  
10:30 a.m.-noon

Children will learn to express animal movement through dance and drawing during visits to the halls of Ocean Life, African Mammals, and Asian Peoples. Presented by Judith Levy, who has taught at the Carnegie Museum of Art, and Patrizia Tombesi, a professional dancer and movement specialist. \$25.

## Creating a Children's Book: Animals and Their Habitats

Ages 10 and 11, each child accompanied by an adult  
Four Saturdays, April 22, 29, May 6 and 20  
10:30 a.m.-1:30 p.m.

Children will examine animals and their habitats in some of the Museum's dioramas to prepare for writing and illustrating their short stories. They'll learn the basic writing skills needed to create a book and how to draw and compose animal pictures. Each child's illustrated short story will be professionally typeset and bound to make a personal, library-quality hardcover book. Children will create their books with the help of their adult companions. Presented by Duncan Ewald, director for the Center for Student Writers and Illustrators, South Orange, New Jersey. \$75.

# Chilean Festival

In conjunction with the Mission of Chile, the Department of Education presents a mini-festival of films and a series of performances that celebrate the culture of Chile and reflect its social, political, and environmental conditions.

Tickets are \$5 per program and \$4 each for two or more programs. For further information call (212) 769-5315. Monday through Friday, 9:00 a.m. to 5:00 p.m.

## Performances

### Grupo Congreso Wednesday, March 15

Grupo Congreso incorporates Latin American folklore into their music, along with jazz and contemporary elements. Their repertoire includes themes related to ecology, human rights, and the extinction of ancestral races. The performance will take place at 8:00 p.m. in the Main Auditorium.

### Los Tres Sunday, March 19

The music of Los Tres reflects the feelings of Chilean youth — the emptiness, loneliness, and yearning for love that characterizes part of modern Chilean society. The band masterfully incorporates elements of Chilean vernacular music and the cueca (the Chilean national dance) with other forms of folklore. The performances will take place at 2:00 and 4:00 p.m. in the Kaufmann Theater.

### Film Festival

All films will be shown in the Kaufmann Theater. Films are in Spanish with English subtitles (except as indicated).

Director Gonzalo Justiniano, whose works include *Los Hijos de la Guerra Fria* (*Sons of the Cold War*) and *Amnesia*, will appear at the festival.

### Friday, March 24

8:00 p.m. *Amnesia*. (Gonzalo Justiniano, 1994, 100 min.) Filmed in Valparaiso, the dunes of Ritoque, and Chanaral, *Amnesia* reconstructs the fragments of history in two time frames, yesterday and today. Two soldiers from a war that no one wants to remember are featured in this psychological thriller.

### Saturday, March 25

2:00 p.m. *Julio Comienza en Julio* (*July Begins in July*). (Silvio Caiozzi, 1979, 75 min.) Set in southern Chile in 1917, this coming-of-age film explores the mores and habits of Chilean aristocratic landowners at the turn of the century. The film reflects an innocence lost through modernization and the exodus of wealthy families.

4:30 p.m. *Archipelago* (*Archipelago*). (Pablo Perlmen, Television Nacional de Chile, 1992, 80 min.) A Chilean architect who takes on clandestine political activities is shot, and in his delirium he sees himself on the island of Chiloe. This adventure, which mixes reality and illusion, brings him into contact with the magical world of the Chono Indians as well as a harsh reality.

6:00 p.m. *Valparaiso*. (Mariano Andrade, 1994, 85 min. in Spanish, no subtitles.) This film, which is based on real events, concerns abandonment, kidnapping, and disappearance. A sailor arriving in Valparaiso for a short stay meets a young woman on the run from the infant trafficking mafia. The woman is desperately looking for her son and draws the sailor into the intrigue.

### Sunday, March 26

2:00 p.m. *La Luna en el Espejo* (*The Moon in the Mirror*). (Andreas Silva, 1990, 75 min.) Don Arnaldo, an old and sick seaman, lives in confinement with his son and controls the life of his household by means of mirrors hanging from the walls of his room. His son and Lucrecia, the next-door neighbor, rebel against Don Arnaldo and force him to try a last resort.

4:30 p.m. *La Frontera* (*The Frontier*). (Cine XXI Ltda., Television Española SA, 1990, 115 min.) A Chilean professor is exiled to La Frontera, a lost land that once belonged to the Mapuche Indians and is beset by natural disasters. He witnesses the selfless solidarity of La Frontera's inhabitants, and his relationship with a refugee of the Spanish Civil War is the key to a painful discovery.

## DEPARTMENT OF EDUCATION Workshops for Young People

I would like to register for the following workshop(s):

Workshop: \_\_\_\_\_

Workshop: \_\_\_\_\_

Student's last name: \_\_\_\_\_ First: \_\_\_\_\_

Age: \_\_\_\_\_ Grade: \_\_\_\_\_

Parent's last name: \_\_\_\_\_ First: \_\_\_\_\_

Daytime phone (area code): \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Total amount enclosed: \_\_\_\_\_

Method of payment ☐ Check ☐ Visa ☐ Mastercard

Credit card no.: \_\_\_\_\_

Expiration date: Month: \_\_\_\_\_ Year: \_\_\_\_\_  
Register early. Class sizes are limited. Separate check per workshop or course. Please note that due to limited registration discounts are not available for these workshops. Send this coupon with your check or money order payable to the American Museum of Natural History and a self-addressed, stamped envelope to: Workshops for Young People, Department of Education, American Museum of Natural History, 79th Street and Central Park West, New York, NY 10024-5192.

Support for Education Department programs is made possible by gifts and grants from Hiramberg & Co., Chase Manhattan Bank, Chemical Bank, Citicorp/Citibank, Henry Kiss Foundation, Inc., Jack and Susan Rifkin Educational and Scholarship Fund, the John A. H. Wallace Fund at the New York

Community Trust, Samuel and Mary Rifkin Foundation, the Aaron Diamond Foundation, the City of New York, the Office of the Borough President of Manhattan, the Vidda Foundation, William Randolph Hearst Foundation, and the family of Frederick H. Leachhardt.



# Courses for Stargazers

## ASTRONOMY: BASIC COURSES

### Introduction to Astronomy

Eight Tuesdays, beginning  
March 28; 6:30-8:40 p.m.  
\$85.50 for Members  
\$95 for non-Members

A first course in astronomy, designed to introduce the many interesting aspects of the universe to those without a math or physics background. Topics include earth as a planet, the moon, the solar system, the stars, the Milky Way, galaxies, quasars, and black holes. Common observations such as planet motions and the rising and setting of the sun and moon are explained. No previous knowledge of astronomy is assumed. This course serves as a prerequisite for the intermediate-level courses, where specific areas are covered in more detail. Instructor: Sune Engelbrektson.

### Stars, Constellations, and Legends

Five Tuesdays, beginning  
March 28; 6:30-8:10 p.m.  
\$72 for Members  
\$80 for non-Members

The lore of the sky is introduced with the Sky Theater's Zeiss projector, which will identify the prominent stars, constellations, and other sky objects of both Northern and Southern Hemispheres. The myths and legends of many cultures relating to the sky, as well as galaxies, star clusters, and nebulae found among the constellations, are illustrated. No prerequisites. Instructor: Henry Bartol.

### Adventures in Astronomy

Five Saturdays, beginning  
April 8; 9:40-11:40 a.m.  
\$67.50 for Members  
\$75 for non-Members

Confused about the difference between a star and a planet? Can't tell astronomy from astrology? Don't know Aquarius from Sagittarius or a black hole from a brown dwarf? Join us for a Saturday course for the whole family (ages 10 and up). In the 5ky Theater and in labs with astronomical equipment we will explore the birth and death of stars, the origin of the universe, the search for extraterrestrial life, and the current night sky. The first hour meets in the 5ky Theater and the second hour in Classroom 1. Instructor: Craig Small.

### How to Use a Telescope

Eight Mondays, beginning  
March 27; 6:30-8:40 p.m.  
\$85.50 for Members  
\$95 for non-Members

An introduction to choosing and using a small amateur telescope. Topics include basic optics of telescopes, equatorial and altitude-azimuth mountings, eyepieces,



The New Solar System

collimating a telescope, setting up for observation, locating objects in the sky, and the use of charts and other aids for observation. No previous knowledge of astronomy is assumed. This course is particularly recommended for those considering the purchase of a telescope and for those who have one but aren't sure how to use it. Instructor: Sam Storch.

### Celestial Highlights

Four selected Mondays: May 22, June 19, July 17, Aug. 21; 6:30-7:40 p.m.  
\$36 for Members  
\$40 for non-Members

This course will focus on the interesting and exciting events in the skies of the coming month. The night sky will be accurately simulated by the Zeiss projector in the 5ky Theater, and students will learn how to find prominent constellations of the season and where and when to see gatherings of the moon and planets. The Planetarium's extensive collection of special effects will illustrate upcoming celestial events, including meteor showers and eclipses. Students will also learn about current space missions and how to find nebulae, star clusters, and galaxies that are visible through binoculars or small telescopes. Instructors: Joe Rao and Henry Bartol.

## ASTRONOMY: INTERMEDIATE COURSES

### The New Solar System

Eight Thursdays, beginning  
March 30; 6:30-8:40 p.m.  
\$85.50 for Members  
\$95 for non-Members

Information supplied by spacecraft during the past decade has made the planets exciting subjects for scientific study. This course will introduce the planets both as parts of the entire solar system and as unique bodies. Structure, composition, weather, rings, and satellite systems of the planets are among the topics

to be included. Images from the many planetary spacecraft will be used to complement the class lectures and discussions. *Introduction to Astronomy* is recommended but not required. Instructor: Francine Jackson.

### A Little Look at Relativity

Four Tuesdays, beginning  
March 28; 6:30-8:10 p.m.  
\$67.50 for Members  
\$75 for non-Members

This short course is designed to serve as a brief introduction to the survey of Einstein's General and Special Theories of Relativity. A basic understanding of elementary algebra will be helpful, but no extraordinary IQ is necessary. Just be prepared to check logic and common sense at the door and you will be ready to enter the exotic world of time travel, black holes, cosmic wormholes, and more. Instructor: William Gutsch.

## METEOROLOGY

### Weather and Climate

Eight Thursdays, beginning  
March 30; 6:30-8:40 p.m.  
\$85.50 for Members  
\$95 for non-Members

Everyone talks about the weather. This course is for those who would like to know more about the atmosphere — how it works and how it affects us. Topics include the structure and motions of the atmosphere, climate, weather forecasting, and atmospheric phenomena such as rainbows, halos, and twinkling stars. No formal training in physics or math is required. Instructor: Barry Grossman.

## AVIATION

### Ground School for Private and Commercial Pilots

Fifteen sessions, Tuesdays  
and Thursdays, beginning  
March 28; 6:30-9:00 p.m.  
\$166.50 for Members  
\$185 for non-Members

This course helps private

and commercial pilots prepare for the FAA written examinations. It can also help as a refresher for biennial flight reviews, relieve some instances of fear of flying, and survey some aspects of flight training and aircraft ownership. Subjects include physiological factors affecting pilot performance, visual and electronic navigation (VOR, ADF, DME, 5AT, NAV, GRS, and LORAN), charts, publications, computers, principles of aerodynamics, and weather. Students will plan cross-country trips and have an opportunity to try the flight deck simulator. Instructor: Ted Cone.

### Ground School for Instrument Pilots

Fifteen sessions, Tuesdays  
and Thursdays, beginning  
March 28; 6:30-9:00 p.m.  
\$166.50 for Members  
\$185 for non-Members

Intended for those planning to take the FAA written examination for an instrument rating. Class meets twice a week, concurrently with *Ground School for Instrument Pilots* (see above for details).

## NAVIGATION: BASIC COURSE

### Navigation in Coastal Waters

Eight Mondays, beginning  
April 3; 6:30-9:00 p.m.  
\$99 for Members  
\$110 for non-Members

An introduction to piloting and dead reckoning for present and prospective owners of small boats. The course provides practical chartwork and includes such topics as the compass, bearings, fixes, buoys and lighthouses, the running fix, current vectors and tides, and rules of the nautical road. Boating safety is emphasized. No prerequisites. Students are required to purchase an equipment kit. Instructor: Greg Smith.

## NAVIGATION: INTERMEDIATE COURSE

### Trouble Shooting Celestial Navigation

Four Mondays, beginning  
March 27 or April 24;  
6:30-8:40 p.m.  
\$67.50 for Members  
\$75 for non-Members

This short course is designed for students who are self-taught or otherwise familiar with techniques for navigating by the stars but in need of some practice. Sessions will include a review of the basic theory, use of Volume 1 HO 249, the Rude Star Finder and Nautical Almanac for pre-calculation of star sights, calculation of LAN and twilight for star sights; review of star sights, moon shots, planet shots, and plotting; and use of celestial computers, sextants, and shooting techniques. No text is required; handouts will be provided. This course will be offered twice each term. Instructor: David Berson.

## NAVIGATION: ADVANCED COURSE

### Advanced Celestial Navigation

Eight Wednesdays, beginning  
March 29; 6:30-8:40 p.m.  
\$85.50 for Members  
\$95 for non-Members

This course includes subject matter not covered in *Introduction to Celestial Navigation* with additional practice problems for the solution of the celestial line of position, latitude by meridian transit of the sun and other celestial bodies, latitude by observation of Polaris, computations of sunrise, sunset, moonrise, moonset, and twilight phenomena. Prerequisite: *Introduction to Celestial Navigation* or equivalent experience with the permission of the instructor. Instructor: Harold Pamham.

## Courses for Stargazers

I would like to register for the following Planetarium courses(s):

Name of course: \_\_\_\_\_

Price: \_\_\_\_\_ (Please note that discount prices apply only to Participating and Higher Members.)

Class beginning: \_\_\_\_\_

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Daytime telephone: \_\_\_\_\_

Membership category: \_\_\_\_\_

Please mail this coupon with your check payable to the American Museum-Hayden Planetarium to: *Courses for Stargazers*, Hayden Planetarium, Central Park West at 81st Street, New York, NY 10024-5192. Registration by mail is strongly recommended and is accepted until seven days preceding the first class. For additional information, call (212) 769-5900, Monday-Friday, 9:30 a.m.-4:30 p.m. **No credit cards accepted. Do not include ticket requests or checks for American Museum programs.**



## Members' Tours Images of Power

In the course of their fieldwork in Bali during the 1930s anthropologists Margaret Mead and Gregory Bateson collected hundreds of paintings and sketches by local artists. These paintings are strikingly different from traditional Balinese art forms and reveal much about Bali that was previously unknown to

Westemers.

One hundred such paintings are on display in Gallery 77, and Members can take guided tours of the exhibition *Images of Power: Balinese Paintings Made for Gregory Bateson and Margaret Mead*. The tours will take place on Friday, April 21, at 6:00, 6:30, 7:00, and 7:30 p.m. Use the coupon on page 3 to order tickets, which are free and available only to Participating and Higher Members ages 16 and older.



photo courtesy of Hildred Gentry

## Museum Notes

### Hours

Exhibition Halls	
Mon.-Thurs. & Sun.	10:00 a.m.-5:45 p.m.
Fri. & Sat.	10:00 a.m.-8:45 p.m.
The Museum Shop	
Mon.-Thurs. & Sun.	10:00 a.m.-5:45 p.m.
Fri. & Sat.	10:00 a.m.-7:45 p.m.
The Junior Shop	
Mon.-Fri.	10:00 a.m.-4:45 p.m.
Sat. & Sun.	10:00 a.m.-5:45 p.m.
The Museum Library	
Tues.-Fri.	11:00 a.m.-4:00 p.m.
The Natural Science Center	
For children of all ages and their families.	
Closed on Mondays and holidays.	
Tues.-Fri.	2:00-4:30 p.m.
Sat. & Sun.	1:00-4:30 p.m.

**"Sorcerer's Talismanic Image," by Ida Bagus Madé Togog, from the Images of Power exhibition.**  
**A demon hurls itself headlong through the air to attack victims with its long thumbnail.**

### The Discovery Room

Passes are distributed at the first-floor information desk beginning at 11:45 a.m. Ages 5-15. Children must be accompanied by an adult. Closed on holidays and weekdays.

Sat. & Sun. Noon-4:30 p.m.

### Museum Dining

Diner Saurus Fast Service Eatery  
Daily 11:00 a.m.-4:45 p.m.

## Naturemax

The new IMAX film *Africa: The Serengeti* explores the relationships between predator and prey by following the great migration of wildebeests, zebras, and other animals. Showtimes are 10:30 and 11:30 a.m. and 1:30 and 3:30 p.m. daily. *Yellowstone* takes viewers on a journey to the national park to discover its history, geology, and wildlife. Show-

times are 12:30, 2:30, and 4:30 p.m.

On Friday and Saturday at 6:00 and 7:30 p.m., *Africa: The Serengeti* is shown on a double bill with *Yellowstone*. Schedules and prices are subject to change without notice. Call (212) 769-5650 for further information.

**Admission** (Participating and Higher Members)

Adults: \$4.75 single feature; \$6 double feature  
Children: \$2.25 single feature; \$3.25 double feature

### Garden Cafe

Reservations: (212) 769-5865

Lunch: Mon.-Fri. 11:30 a.m.-3:30 p.m.

Dinner: Fri. & Sat. 5:00-7:30 p.m.

Brunch: Sat. & Sun. 11:00 a.m.-4:00 p.m.

### Whale's Lair

Fri. 3:00-8:00 p.m.

Sat. Noon-8:00 p.m.

Sun. & most holidays Noon-5:00 p.m.

### Snack Carts

Sat. & Sun. 11:00 a.m.-4:00 p.m.

### Entrances

During Museum hours visitors can enter the building through the 77th Street entrance, the parking lot entrance (81st Street), or the Roosevelt Memorial Hall entrance (79th Street and Central Park West). Visitors attending programs after hours can enter the building at 79th Street and Central Park West.

## Happenings at the Hayden

### Lectures

#### Frontiers in Astronomy and Astrophysics

On Monday, March 13, at 7:30 p.m., Stephen Gregory, professor of astronomy at the University of New Mexico, will present an illustrated talk, "Voids in Space."

On Monday, April 10, at 7:30 p.m., Torrence Johnson, senior research scientist at the Jet Propulsion Laboratory, will present an illustrated talk, "The Galileo Mission to Jupiter."

These lectures are part of the *Frontiers in Astronomy and Astrophysics* series. Tickets are \$6 for Participating and Higher Members and \$8 for non-Members. For information about ticket availability and upcoming lectures, call (212) 769-5900. Use the coupon at right to order tickets.

### Sky Show

## The Ten Most-Asked Questions about the Universe

What is a black hole? Is there life elsewhere in the universe? Does Planet X exist? Are UFOs real? When is the best time to see the Northern Lights? What is at the edge of the universe? How will the universe end? This Sky Show answers these and other frequently asked questions about space.

### Showtimes:

Mon.-Fri. 1:30 and 3:30 p.m.  
Sat. 11:00 a.m. (except for March 4).  
1:00, 2:00, 3:00, 4:00, and 5:00 p.m.  
Sun. 1:00, 2:00, 3:00, 4:00, and 5:00 p.m.

**Admission** (Participating and Higher Members)  
Adults: \$4  
Children (2-12): \$2

Call (212) 769-5100 for additional information and non-Members' prices. Please note that prices are subject to change without prior notice.

### Exhibition

#### The Universe Revealed: Recent Images from the Hubble Space Telescope

This exhibition features photographs of recent discoveries made by the Hubble Space Telescope, including the M87 galaxy (which proves the existence of black holes) and images of the Shoemaker-Levy 9 comet strikes on Jupiter. A 1:15 scale model of the Space Shuttle Orbiter deploying the Hubble is on display, along with a scale model of the Optical Telescope Assembly of the Hubble Space Telescope and a video of the repair mission of December 1993.

### Children's Shows

*Wonderful Sky* is a special Sky Show for preschoolers. Children sing along with images of their favorite Sesame Street Muppets as they learn about rainbows, the phases of the moon, sunsets, and stars. Sat., March 4, at 10:30 a.m., and Sat., April 1, at 10:30 and 11:45 a.m. Admission for Participating and Higher Members is \$4 for adults and \$2 for children. Members can purchase up to four tickets at the Members' price.

Shows usually sell out in advance; reservations, by mail only, are necessary. Make your check payable to the Hayden Planetarium (attn: Wonderful Sky, Central Park West at 81st Street, New York, NY 10024-5192); indicate membership category and a first and second choice of showtimes. Be sure to include a self-addressed, stamped envelope and your daytime telephone number. For additional information call (212) 769-5900.

*Robots in Space* features Lucasfilm's R2D2 and C-3PO and has been created especially for children ages 7 to 12. Together with a live host, these famous space robots take children on a tour of the universe. See how satellites and probes — the real space robots — help us learn about worlds near and far. Journey from the earth to other planets and distant black holes. Sat., March 4, at 11:45 a.m. Admission for Participating and Higher Members is \$4 for adults and \$2 for children. For information, call (212) 769-5900.

## Laser Light Shows

Journey into another dimension where laser visuals and rock music combine to create a dazzling 3-D experience of sight and sound. Shows are presented on Fridays and Saturdays at 7:00, 8:30, and 10:00 p.m. For prices and show schedule, telephone (212) 769-5100.

It's always a good idea to call before visiting the Planetarium, since prices, programs, and showtimes are subject to change without notice. For general Planetarium information, call (212) 769-5100.

### Lecture: "Voids In Space"

Monday, March 13, 7:30 p.m.

Number of Members' tickets at \$6

(no more than 4, please): \_\_\_\_\_

Number of non-Members' tickets at \$8: \_\_\_\_\_

Total amount enclosed for program: \_\_\_\_\_

### Lecture: "The Galileo Mission to Jupiter"

Monday, April 10, 7:30 p.m.

Number of Members' tickets at \$6

(no more than 4, please): \_\_\_\_\_

Number of non-Members' tickets at \$8: \_\_\_\_\_

Total amount enclosed for program: \_\_\_\_\_

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Daytime telephone: \_\_\_\_\_

Membership category: \_\_\_\_\_

Please make check payable to the Hayden Planetarium and mail with a **self-addressed, stamped envelope** to: Lecture, Hayden Planetarium, Central Park West at 81st Street, New York, NY 10024-5192.

Please note that ticket orders are subject to availability and cannot be processed without telephone number and stamped, self-addressed envelope. **Do not include ticket requests or checks for American Museum programs.**



Sun

Mon

Tue

Wed

Thu

Fri

Sat

4 11:00 a.m. NY Map Society.  
Room 319. Free.

## Expedition

The giant sequoia is one of the 50 treasures highlighted in the new self-guided Expedition tours. Visitors can come to the base camp in the Hall of Asian Mammals on the second floor for an orientation session that will send them on a treasure hunt around the Museum in the manner of a grand expedition.

1 7:00 p.m. Toward the North Pole. Page 6.  
7:30 p.m. Amateur Astronomers Association. Speaker, Gregory Matloff. NYU: "Star Hopping: Interstellar Flight." Kaufmann Theater. Free.

## Members' Birthday Parties at the Museum

A new theme party offers young Members a chance to celebrate their birthdays among the arachnid world. The Spiders! parties feature a guided tour of the Gallery 3 exhibition and related games and craft activities—a unique way for young Members and their friends to celebrate. Other theme parties for Members between the ages of 5 and 10 focus on fossil mammals, dinosaurs, African mammals, reptiles and amphibians, ocean dwellers, Native Americans, and minerals and gems. In addition to Spiders!, another new theme party offers party-goers a look at one of the Nature-

max films. The group should be no fewer than 10 and no more than 20. The fee is \$300 plus \$15 per child and covers all materials and the services of a Museum party coordinator. The coordinator will help you plan a party that suits your child's tastes and will handle everything from candles to party favors. All you need to do is bring the cake and help escort the guests. The parties, which are two hours long, are available only to Members at the Contributor (\$100) and higher levels. For more information call (212) 769-5542.

11 11:30 a.m. and 1:30 p.m. City Animals: Fact and Myth. Members' family program. Kaufmann Theater. \$5 for Members. \$8 for non-Members. Page 2.



12 2:00 p.m. NY Shell Club. Room 319. Free.

13 7:30 p.m. Frontiers in Astronomy and Astrophysics. Speaker, Stephen Gregory: "Voids in Space." Planetarium Sky Theater. \$6 for Members, \$8 for non-Members. Page 11.

14 5:30-7:30 p.m. Members' Workshop on Reading and Interpreting Maps and Making Topographic Models. Part 2. \$40. and open only to Participating and Higher Members. Tickets required. Page 2.

15 8:00 p.m. Grupo Congreso. Main Auditorium. Page 9.

16 4:00-8:00 p.m. Members' preview of Spiders! in Gallery 3. Page 1.

17 Spiders! opens in Gallery 3. Page 1.

18 8:40 a.m.-2:00 p.m. Spiderama! Members' family program. \$15. and open only to Participating and Higher Members. Tickets required. Page 1.

19 2:00 p.m. NY Paleontological Society. Room 319. Free.

2:00 p.m. and 4:00 p.m. Los Tres. Kaufmann Theater. Page 9.

## Parking

The Museum's parking lot now offers expanded hours and revised rates. The parking lot is open every day from 7:00 a.m. till 11:30 p.m. Rates for cars entering between 7:00 a.m. and 5:00 p.m. start at \$5 for up to a half-hour and advance by stages to a closing-time maximum of \$17. Cars entering between 5:00 p.m. and 11:30 p.m. are charged a minimum of \$5 and a maximum of \$7 on Sunday through Thursday and a maximum of \$12 on Friday and Saturday. Buses are charged \$11 and are not admitted on weekends.

The parking lot has a capacity of 100 vehicles and is operated on a first-come, first-served basis. Call (212) 769-5606 for information about alternative parking.

28 7:00 p.m. Monkfish: A Chief and Her People. Members' evening program. Main Auditorium. \$18 for Members. \$25 for non-Members. Page 2.

7:30 p.m. Linnaean Society of NY. Speaker, Peter Grant. Princeton University: "Darwin's Finches." Room 319. Free.

21 7:00 p.m. NY Entomological Society. Room 319. Free.

7:00 p.m. Geology for Travelers. Page 6.

7:00 p.m. Spiders: Life styles of the Small and Hair. Page 7.

22 7:00 p.m. About the Jews of India: Shanwar Telis or Bene Israel Members' evening program. Main Auditorium. \$7 for Members. \$10 for non-Members. Page 2.

23 6:30 p.m. Eco Impact Forum. Speaker, Walter Sage: "Environmental Impact on Shell Collecting in the New York Area." Linder Theater. Free. Page 4.

7:00 p.m. NY Microscopical Society. Room 319. Free.

24 8:00 p.m. Chilean Film Festival. Kaufmann Theater. Page 9.

25 1:45 p.m. Sign language tour of Spiders! in Gallery 3. Call (212) 769-5566 (TTY users: 1-800-662-1220 relay) for information. 2:00 p.m. Chilean Film Festival. Kaufmann Theater. Page 9. 5:30 p.m. Artists and Explorers of the American Museum. Museum tours. Page 4.

31 6:00, 6:30, 7:00, and 7:30 p.m. Members' guided tours of Spiders! in Gallery 3. Free. and open only to Participating and Higher Members. Tickets required. Page 1.

7:00 p.m. The Films of David MacDougal Page 7.

## March 1995 American Museum of Natural History



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OF NATURAL HISTORY

# ROTUNDA

For Participating and Higher Members of the American Museum of Natural History

Vol. 20, No. 4 April 1995



National Geographic Society/Hugo van Lawick



National Geographic Society/Hugo van Lawick

## An Evening with Jane Goodall

**Tuesday, April 25  
7:00 p.m.  
Main Auditorium  
\$22 for Members, \$30 for non-Members**

Famed ethologist Jane Goodall will appear at the American Museum this month to discuss her field research among the chimpanzees of Tanzania's Gombe Stream Research Centre. Goodall has studied the chimps' individual and social behavior patterns since 1960; her work represents the longest continuous research project ever conducted on animals in the wild.

The world knew little about the behavior of chimpanzees when Goodall first ventured into the African bush. She was the first person to observe and record chimpanzees making and using tools — a behavior that was previously thought to be unique to humans. She was also the first to observe the complexities of chimpanzee communities, recording

the affectionate bonds between mothers and their offspring and the primates' sophisticated system of cooperative hunting.

The author of six books and the recipient of numerous awards, Goodall remains one of the most renowned and respected scientists in the world. Her efforts not only include protecting wild chimp populations but

also improving the lives of captive chimpanzees. Now in her fourth decade of study at Gombe, Jane Goodall and her work are famous around the world through her books, her appearances on National Geographic Society specials, and her annual lecture tour.

Use the April Members' programs coupon on page 3 to register.



## Spring Break Workshops

April 18-20



Naturalist June Myles will host workshops for kids between the ages of 6 and 9 during the week that school is out. The workshops will take place between 10:30 a.m. and noon. Tickets are \$18 each and available only by mail to Participating and Higher Members. Use the coupon on page 5 to register.

**Ugh! A Bug!** Tuesday, April 18. Participants will make a bug mask and learn about insect habitats and behavior. They'll also visit the new *Spiders!* exhibition.

**By the Power of their Dreams.** Wednesday, April 19. The most important of a Plains Indian warrior's possessions was his buffalo-hide medicine shield. Children will look at the role of shields in the lives of Plains Indians and make a shield to take home.

**125 and Still Counting.** Thursday, April 20. Kids will explore the Museum's history in the exhibition *The First 125 Years* and create a souvenir pop-up book to commemorate some of the highlights.



## Zebra Mussels: Alien Invaders

Wednesday, April 12

In the late 1980s a freshwater mollusk known as the zebra mussel was introduced into the Great Lakes region, and since then it's spread throughout freshwater streams and lakes. No one knows as yet the extent of the zebra mussels' impact on the ecosystem, but they could cause major changes in the freshwater systems where

they're found. In the meantime, they're serious pests that clog intake pipes such as those of water supply systems and power plants, and their presence has added millions of dollars to the operating costs of many facilities.

Sidney Horenstein, the Museum's coordinator of environmental public programs, will use slides to illus-

trate the potential problems that zebra mussels represent to the ecosystem and the methods that are being studied to control this invasive species.

The program will take place at 7:00 p.m. in the Kaufmann Theater. Tickets are \$6 for Members and \$9 for non-Members; use the coupon on page 3 to register.

## Members' Adult-Child Workshop

### The Mouse in the Matzoh Factory

Sunday, April 9

The mouse returns for its sixth annual appearance at the Museum for a special Passover program of songs, laughter, and matzoh making. Author Francine Medoff will read her story *The Mouse in the Matzoh Factory*, and then each child will help her mix the dough for matzoh.

Participants will take the dough home with them to bake in their own kitchens.

Workshops will take place at 11:00 a.m., 12:30, and 2:00 p.m. The program lasts approximately 45 minutes and is appropriate for children between the ages of 5 and 8. Tickets are \$16 per

couple and available only by mail to Participating and Higher Members.

Please note that all attendees must have tickets and that Members are limited to four tickets per request for this popular show.

Use the coupon on page 5 to register.

## Members' Museum Tour

### Ages of Rock

Friday, April 28

Sidney Horenstein, the Museum's coordinator of environmental public programs, will lead a fascinating walk around the Museum and point out the fossils in the building's walls and floors. The tours will step outside for

an overview of the Museum's geology, geography, and varieties of architectural styles. Back inside, they'll survey the diversity of stones used in the building's construction and hear about the geological history the stones

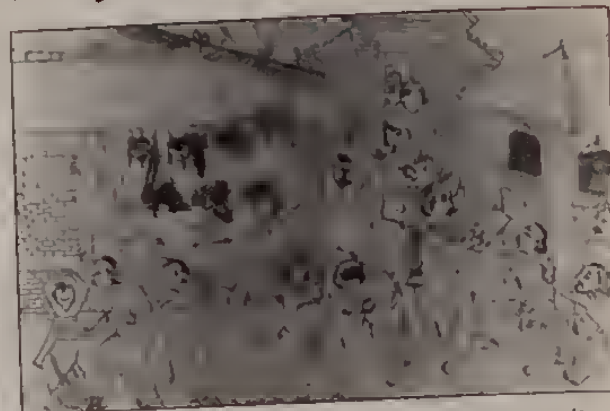
reveal.

Tours will take place at 4:00, 5:30, and 7:00 p.m. Tickets are \$16 and available only by mail to Participating and Higher Members. Use the coupon on page 5 to register.

## Members' Tours

### Images of Power

Friday, April 21



David Pittu Lambert

In the course of their fieldwork in Bali during the 1930s anthropologists Margaret Mead and Gregory Bateson collected hundreds of paintings and sketches. These paintings are strikingly different from traditional Balinese art forms and reveal much about Bali that was previously unknown to Westerners.

One hundred such paint-

ings are on display in Gallery 77, and Members can take guided tours of the exhibition *Images of Power: Balinese Paintings Made for Gregory Bateson and Margaret Mead*. The tours will take place at 6:00, 6:30, 7:00, and 7:30 p.m. Use the coupon on page 3 to order tickets, which are free and available only to Participating and Higher Members ages 16 and older.

## Members' Workshop for Adults

### April Showers

Friday, April 21

Celebrate the season by painting an umbrella to match your mood (or raincoat). We'll provide the umbrella and the paints; you provide the sentiment. You'll never again wonder which umbrella belongs to you.

The workshop, which is geared toward ages 16 and older, will take place from 6:30 to 8:00 p.m. Tickets are \$35 and available only by mail to Participating and Higher Members. Use the coupon on page 5 to register.



# ROTUNDA

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# Earth Day

Saturday, April 22



Celebrate Earth Day at the Museum, where geologist Sidney Horeinstein and other scientists will present a series of hands-on demonstrations in the Edith C. Blum Lecture Room at 2:00 p.m. The activities will focus on the biodiversity of the New York City area. Botanist William Schiller of the Education Department will discuss local plant life, and Lou Sorkin of the Department of Entomology will talk about common insects of the area.

## Sea Change

Marine biologist and underwater explorer Sylvia Earle discusses the precarious state of our seas and offers a blueprint for change

Tuesday, April 18  
7:30 p.m.  
Kaufmann Theater  
Free

In our lifetime, we have literally witnessed a 'sea change.' Our generation came along at a time when natural ocean systems were still largely intact. In a few decades, our species has squandered assets that have been thousands of millennia in the making — and we're still doing it! Even little kids can see the trashing of beaches that were pristine a few years ago. What we must do is encourage a sea change in attitude, one that acknowledges that we are part of the living world, not apart from it.

from *Sea Change: A Message of the Oceans*



Sylvia Earle

One of America's leading underwater explorers and environmentalists sounds a call to arms to protect the oceans in her book *Sea Change*, a view of how the sea has altered significantly in the past 50 years. In this special program for the Museum, Sylvia Earle offers a candid look at the current state of our seas and a first-hand review of the consequences of human abuse of the most important common property on the planet.

Earle's personal observations from her many years of experience as a deep-sea diver enable her to paint a vivid portrait of the world's oceans. She'll also discuss current maritime laws and policies to show how nations are scrambling to stake their claims to the ocean's vast mineral resources, and she'll explain why wild ocean populations are collapsing in ever-increasing numbers.

The former chief scientist of the National Oceanographic and Atmospheric Association, Earle is director of Deep Ocean Engineering, a company she co-founded in 1981 that builds state-of-the-art deep-sea submersibles.

The free program is sponsored by the Center for Biodiversity and Conservation and presented in conjunction with the publication by G.P. Putnam's Sons of Earle's new book *Sea Change: A Message of the Oceans*. The book will be available for purchase at the program, and Earle will sign copies after her lecture. Use the coupon at right to register.

## April Members' Programs Coupon

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Daytime telephone: \_\_\_\_\_

Membership category: \_\_\_\_\_

Total amount enclosed: \_\_\_\_\_

Please make check (if applicable) payable to the American Museum of Natural History and mail with a **self-addressed, stamped envelope** to: April Members' Programs, Membership Office, American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192. Telephone reservations are not accepted. No refunds or exchanges.

Unless otherwise indicated, no more than eight tickets may be ordered for a program. Participating Members are entitled to four tickets per program at the Members' price, Higher Members are entitled to six tickets, and Associate Members are entitled to one ticket.

**Zebra Mussels.** Wednesday, April 12, 7:00 p.m.  
Number of Members' tickets at \$6: \_\_\_\_\_  
Number of additional tickets at \$9: \_\_\_\_\_  
Total amount enclosed for program: \_\_\_\_\_

**Sea Change.** Tuesday, April 18, 7:30 p.m.  
Number of free Members' tickets  
(no more than 4, please): \_\_\_\_\_

**Members' Tours of Images of Power.** Friday, April 21. Please indicate a first, second, and third choice.  
\_\_\_\_ 6:00 p.m. \_\_\_\_ 6:30 p.m. \_\_\_\_ 7:00 p.m. \_\_\_\_ 7:30 p.m.  
Number of free Members' tickets  
(no more than 2, please): \_\_\_\_\_

**An Evening with Jane Goodall**  
Tuesday, April 25, 7:00 p.m.  
Number of Members' tickets at \$22: \_\_\_\_\_  
Number of additional tickets at \$30: \_\_\_\_\_  
Total amount enclosed for program: \_\_\_\_\_

**Collecting Fossils in the Sands of Mongolia**  
Thursday, May 4, 7:00 p.m.  
Number of Members' tickets at \$6: \_\_\_\_\_  
Number of additional tickets at \$9: \_\_\_\_\_  
Total amount enclosed for program: \_\_\_\_\_

**Sexual Legacies.** Thursday, May 11, 7:00 p.m.  
Number of Members' tickets at \$7: \_\_\_\_\_  
Number of additional tickets at \$10: \_\_\_\_\_  
Total amount enclosed for program: \_\_\_\_\_

**Seismosaurus: The Earth Shaker**  
Wednesday, May 24, 7:00 p.m.  
Number of Members' tickets at \$8: \_\_\_\_\_  
Number of additional tickets at \$12: \_\_\_\_\_  
Total amount enclosed for program: \_\_\_\_\_

**The Jews of Yemen.** Tuesday, May 30, 7:00 p.m.  
Number of Members' tickets at \$7: \_\_\_\_\_  
Number of additional tickets at \$10: \_\_\_\_\_  
Total amount enclosed for program: \_\_\_\_\_

**NOTE:** Orders received less than ten days before show dates will be held for pick-up at the door on the day of the program if tickets are still available. If an event is sold out, you will be advised in writing or by phone and your check will be returned.



## The Jews of Yemen: A Vanishing Culture

Tuesday, May 30  
7:00 p.m.  
Main Auditorium  
\$7 for Members, \$10 for non-Members



Yemenite woman in bridal gown

Beth Shearim, the most famous Jewish cemetery in the Near East during the third century, contains a Yemenite catacomb. This burial site is difficult to reach. Its entrance is overgrown, and the inscriptions in red pigment have been almost obliterated by time and weather. Those that can still be read form the first historical evidence of an established Jewish community in Yemen.

For centuries the Jews of Yemen enjoyed freedom and prosperity. But with the suicide of the last Jewish king — according to legend he rode his horse into the sea — and the increasing power of Islam, Yemenite Jews were stripped of their land, forbidden to farm, and confined within small areas of villages and of the capital of Sanaa. In the crowded ghetto of Sanaa, Yemenite Jews created a style of architecture known nowhere else in the Middle East. They did the only work allowed them — that of arti-

sans — becoming skilled silversmiths, coppersmiths, weavers, woodworkers, and masons.

Between 1948 and 1950 large numbers of Yemenite Jews emigrated to Israel. Little was known about those who remained behind.

In *Jews of Yemen: A Vanishing Culture*, filmmaker Johanna Spector takes the viewer to Yemen to visit the few remaining Jews in Haidan; however, all customs and ceremonies were filmed in modern-day Israel, where Yemenite Jews continue to practice their old traditions.

The film includes footage of traditional Yemenite celebrations, rituals, dances, and music. Spector's camera enters the homes of several Yemenite families as they celebrate the Passover Seder in ways that are unique to Yemenite Jews but differ from region to region in Yemen.

In one segment — a pre-wedding ceremony — a

young bride wears anklets to protect her from the evil eye, a pearl-studded headdress, a gold brocade coat, and vast amounts of jewelry, including necklaces, earrings, and six bracelets, worn in a prescribed order. (All jewelry is considered magical, since its tinkling is thought to drive away evil spirits.) The bride is seen celebrating in the company of women only, for women do not dance or sing in the company of men. Only at certain points of the prenuptial ceremony are her father, brothers, and uncles permitted to be present.

*The Jews of Yemen* had its premiere at the Museum in 1986. Filmmaker Johanna Spector, who is an ethnomusicologist and an expert on Yemenite music, will introduce the 78-minute film and answer questions after its screening. This program is two hours long and the fourth in a series of Spector's ethnographic films. Use the coupon on page 3 to register.

## Seismosaurus: The Earth Shaker

Wednesday, May 24  
7:00 p.m.  
Kaufmann Theater  
\$8 for Members,  
\$12 for non-Members



David Gillette

The newest and largest dinosaur to be added to the ranks of the Mesozoic giants is *Seismosaurus hallorum* from the Morrison Formation (Upper Jurassic) of New Mexico. Paleontologist David Gillette will talk with Members about this prehistoric behemoth, which is the longest dinosaur ever discovered (an estimated 150 feet) and perhaps the largest, too — it's thought to have weighed 100 tons, or the weight of 20 average elephants.

*Seismosaurus* represents the pinnacle of success of the massive sauropods, which reached their greatest diversity in the Jurassic and then suffered near-extinction at the Jurassic-Cretaceous boundary, the Sauropod Crisis. Its excavation involved the use of high-tech instruments to look for the bones underground. More than 240 stomach stones (gastroliths) were excavated with the skeleton, indi-

cating that sauropods had both crop and gizzard as specialized chambers of the digestive tract.

Gillette became state paleontologist of Utah in 1988 after serving for five years as the curator of paleontology at Albuquerque's New Mexico Museum of Natural History, where he initiated the *Seismosaurus* Project. He is also the chief scientist for the Southwest Paleontology Foundation, Inc., which sponsored the *Seismosaurus* Project, and consultant scientist at Los Alamos National Laboratory, where much of his research in technological applications was conducted.

Use the April Members' programs coupon on page 3 to register.

Members' Walking Tour of a

## Manhattan Mosque

Saturday, May 20  
11:00 a.m.-12:30 p.m.  
\$20, and open only to  
Participating and Higher Members  
Ages 16 and older

Members can take a guided tour of the Manhattan Mosque at 96th Street. The mosque, which was completed in 1991, was built by the Islamic Cultural Center Foundation.

Architect Mustafa Abadan, who was the building's senior designer, will lead the tour of the mosque's interior and offer an overview of its exterior. He'll begin with an intro-

duction to Islamic architecture and describe the attempts to interpret traditional motifs within a modern-day urban context.

Participants must be 16 or older and women should be sure to wear a head covering. Use the coupon on page 5 to register, and please note that tickets are available only by mail.

## Spring Cruise on Long Island Sound

Sunday, May 7  
Noon-4:00 p.m.  
\$55 for Members, \$65 for non-Members

Spend a spring afternoon speeding along Long Island Sound on this Members' cruise. Participants will travel from the foot of Wall Street up the East River, through Hell Gate, and beneath the Throgs Neck Bridge into the sound. They'll view both the New York and Connecticut shorelines on the way to New Haven Harbor and back.

Sidney Horenstein, the

Museum's coordinator of public programs, will host the cruise and point out landmarks along the way. He'll discuss the origins of the sound, the geology of shorelines, and the history of some of the shoreline towns.

Bring a bag lunch; refreshments are available on board. Use the coupon on page 5 to register; tickets are available only by mail.



## Sexual Legacies

*How Ancient Gender Differences Influence Our Lives in the Office and the Home*

Thursday, May 11  
7:00 p.m.

Main Auditorium

\$7 for Members, \$10 for non-Members

Why can't a man be more like a woman? Why can't a woman be more like a man? At the Members' program *Sexual Legacies* anthropologist Helen Fisher will explore gender differences in behavior and the brain.

Fisher will use slides to trace the evolution of male/female variations back to their origins among our hunting and gathering ancestors on the grasslands of Africa some 4 million years ago. She'll explain how our modern Western myths about the genders emerged with the agricultural revolution. Using these data on gender legacies, Fisher will offer an anthropological perspective on contemporary issues, including intimacy, sexuality, romantic love and infidelity, flirting and sexual harassment, communication styles, and gender tactics in business and family life. She'll conclude with several predictions about women, men, sex, and power in the coming decades.

A research associate in the Department of Anthropology at Rutgers University, Fisher has written numerous scholarly and popular articles and books. Her most recent book,



Helen Fisher

*Anatomy of Love: A Natural History of Matings, Marriage, and Why We Stray*, was chosen as a notable book of 1994 by the *New York Times* and has been published in 16 countries. She is host of the 1995 four-part television series, *Anatomy of Love*, which is based on this book.

Use the April Members programs coupon on page 3 to register.

Members' Adult-Child Workshop

## Native American Bead Weaving

Sunday, May 21

11:00 a.m. and 1:30 p.m.

\$26 per couple, and open only to Participating and Higher Members  
Ages 8 and older

Parents and children can learn a traditional craft together at a workshop on Native American bead weaving. They'll find inspiration among the exhibits in the halls of Plains Indians and Eastern Woodlands Indians, where many of the displays include colorful beaded jewelry and

other ornaments. Then they'll make a simple loom and learn weaving techniques. Participants will use seed beads to make earrings, bracelets, rings, and other jewelry.

The 90-minute workshop will be conducted by Carol Bowen, who is a museum

educator at the Staten Island Children's Museum. Bowen has taught people of all ages for ten years at museums and public schools. Enrollment in this workshop is limited to 22 couples. Use the coupon on this page to register, and please note that tickets are available only by mail.

## Collecting Fossils in the Sands of Mongolia: Following in the Footsteps of Roy Chapman Andrews



On Thursday, May 4, Priscillo and Malcolm McKenna will talk with Members about their experiences on a series of paleontological expeditions in the Gobi Desert. Every year since 1990 scientists from the American Museum have worked with colleagues from the Mongolian Academy of Sciences in exploring the Gobi's rich fossil beds, which are the source of many spectacular fossil finds.

Malcolm McKenna, who is Frick Curator of Fossil Mammals in the Department of Vertebrate Paleontology, will discuss scientific aspects of the expedition. Priscillo McKenna will talk about logistics, navigation, camp life, and the nomadic people of the Gobi.

The program will take place at 7:00 p.m. in the Kaufmann Theater. Tickets are \$6 for Members and \$9 for non-Members. Use the April Members programs coupon on page 3 to register.



All photos courtesy of Malcolm and Priscilla McKenna

**Tours, Day Trips, and Workshops.** Use this coupon to register for *Native American Bead Weaving*, *The Mouse in the Matzoh Factory*, the tours *Ages of Rock* (indicate a first and second choice of times), the *Spring Break Workshops* (indicate title and date), *April Showers*, the *Walking Tour of a Manhattan Mosque*, and the *Members' Cruise on Long Island Sound*.

Name(s) of program(s): \_\_\_\_\_

\_\_\_\_\_

Number of tickets and price (please indicate which program if more than one): \_\_\_\_\_

Total amount enclosed: \_\_\_\_\_

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Daytime telephone: \_\_\_\_\_

Membership category: \_\_\_\_\_

Please make check payable to the American Museum of Natural History and mail with a **self-addressed, stamped envelope** to: Tours and Workshops, Membership Office, American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192.



# Evolution in Disturbed Places

## An Interview with François Vuilleumier

By Ruth Q. Leibowitz

François Vuilleumier is a curator in the Department of Ornithology. On the walls of his spacious office on the fifth floor hang the natural history drawings and paintings of three generations of Vuilleumiers. A graceful man who retains the French accent of his native Switzerland, Vuilleumier is involved in several intercontinental studies that attempt to trace evolutionary relationships among different groups of birds. In this interview he focuses on his work in Patagonia, a temperate area on the southernmost tip of South America that is defined ecologically by temperate rain forest to the west and steppe to the east.

Dr. Vuilleumier, what led you to become a scientist?

I was always interested in natural history. My father was an artist — these are some of his drawings up here. He drew and sculpted mostly animals, so maybe there is something genetic there. My grandfather, his father, was an engraver who adorned the backs of watches, pillboxes, and so on. He collected insects and plants as a hobby.

My father was a member of a local zoological society in Geneva. They had evening meetings once a month. I went and listened and decided I wanted to do more. He introduced me to the then-director of Geneva's natural history museum, who was a mammalogist, and he also introduced me to a local ornithologist. One thing led to another; pretty soon I was writing things in my notebooks, and that's it! I haven't stopped since.

Why birds?

At first, the more eloquent speakers at the meetings were talking about mammals. But mammals turned out to be hard for a 12-year-old to study because many of them are nocturnal. I lived in the city, and my parents wouldn't let me go out alone on my bike to spend the night in a sleeping bag in the woods to study foxes or other mammals. The only mammals I could see from my home were squirrels, but there were lots of birds around the squirrels, so I started looking at the birds.

You've done the majority of your work in South America. What drew you to this continent, and to Patagonia in particular? Was it chance or a decision you made long ago?

I think it was both. Long ago I went to northern Patagonia and visited forests and a little bit of the steppe and liked the area very much. I censused some bird populations and did some collecting and decided one day I'd like to go back and explore in greater detail.

How long ago was that?

Oh, more years than you want to remember!

South America has many species of birds — more than any other continent. Many of these birds are endemic to the continent — meaning restricted to it or a portion of it — and are unique in terms of their relationships among each other and among other birds. As an evolutionary biologist, my interest is why they are there in the first place. Have they evolved in relationship with a particular kind of vegetation, like savanna, steppe, tundra? How long ago did they evolve, and from what ancestral stocks? What are they related to? How many species live together in particular spots? There are many questions of this kind.

Patagonia does not have that many bird species, but enough so that you have a wide range of them, including a number of endemics — restricted to the forests or the steppes, for instance. But it is difficult to know where some species occur because much information is still missing. So I designed a project to study that fauna in detail over several years, and to do it at two levels: first, study the whole fauna by getting to know as many birds as I could with the idea of writing an overview; second, approach in detail only a few selected groups that seem to pose special types of evolutionary problems.

How about focusing on the selected groups — how did you decide which groups to study, and how did you go about designing such a study?

I chose five groups to study in detail at first. One is a group of scavenging falcons called the caracaras. Another is the seedsnipes, a grouselike, poorly known group endemic to South America with a couple of species that occur high in the mountains of Patagonia. Group three consists of smaller ground-foraging songbirds called cinclodes. Group four is called the miners because they excavate burrows or use galleries dug by rodents. There are several such species in Patagonia, two of which seem to have evolved there. The fifth is a group of finches, known as sierra-finches. They also have endemic species in Patagonia. Two kinds occur side by side, and no one really knew if there were one or two species or how long ago they evolved to be as they are today.

How did you choose which group to concentrate on?

Well, that was easy. The caracaras are rare and difficult to see or collect. The seedsnipes occur on high mountains, and to observe them you have to make long, difficult horseback trips and camp in rough weather, so I had to give those up. The cinclodes that are most interesting live on remote islands, and you need special naval vessels to take you there. The navy isn't interested in the birds, so you can only spend an hour on an island — if you are lucky. By default, I focused on the miners and the finches. To me, the finches are the most interesting.

What makes their situation unique?

There are several factors. Other species of sierra-finches occur in Patagonia and farther north in the Andes, all of which live in very open environments — steppes, tundra, and scrubby areas around human villages. Only one species lives in forests, and this ecological shift is very conspicuous and rare. I thought, "Here is something of interest that should give me some information about how species evolve." The two habitats, forest and steppe, are adjacent to each other. They have a 1,500-mile-long border, and the birds could theoretically move between the two without any trouble.

The more traditional idea of evolution has usually said that there would have to be —

A barrier, that's right. And there is nothing obvious there. So I looked at specimens in museums. I was thinking that if they are really closely related and if they have evolved from a common ancestor a short time ago, then in the right places they should produce hybrids, because their gene pools should not be very different from one another. Who knows what separated them in the past? Today not much seems to be separating them, except a border between forest and steppe, which is shrubby and where neither species seems to occur. But human beings have been there for a while and have cut up these intermediate zones to raise sheep and cut timber. In the far south, for example, the human disturbance of the habitat began about 150 years ago. This might have allowed the forest birds to go into the scrub or the steppe birds to go toward the forest. In either case, the two species would meet.

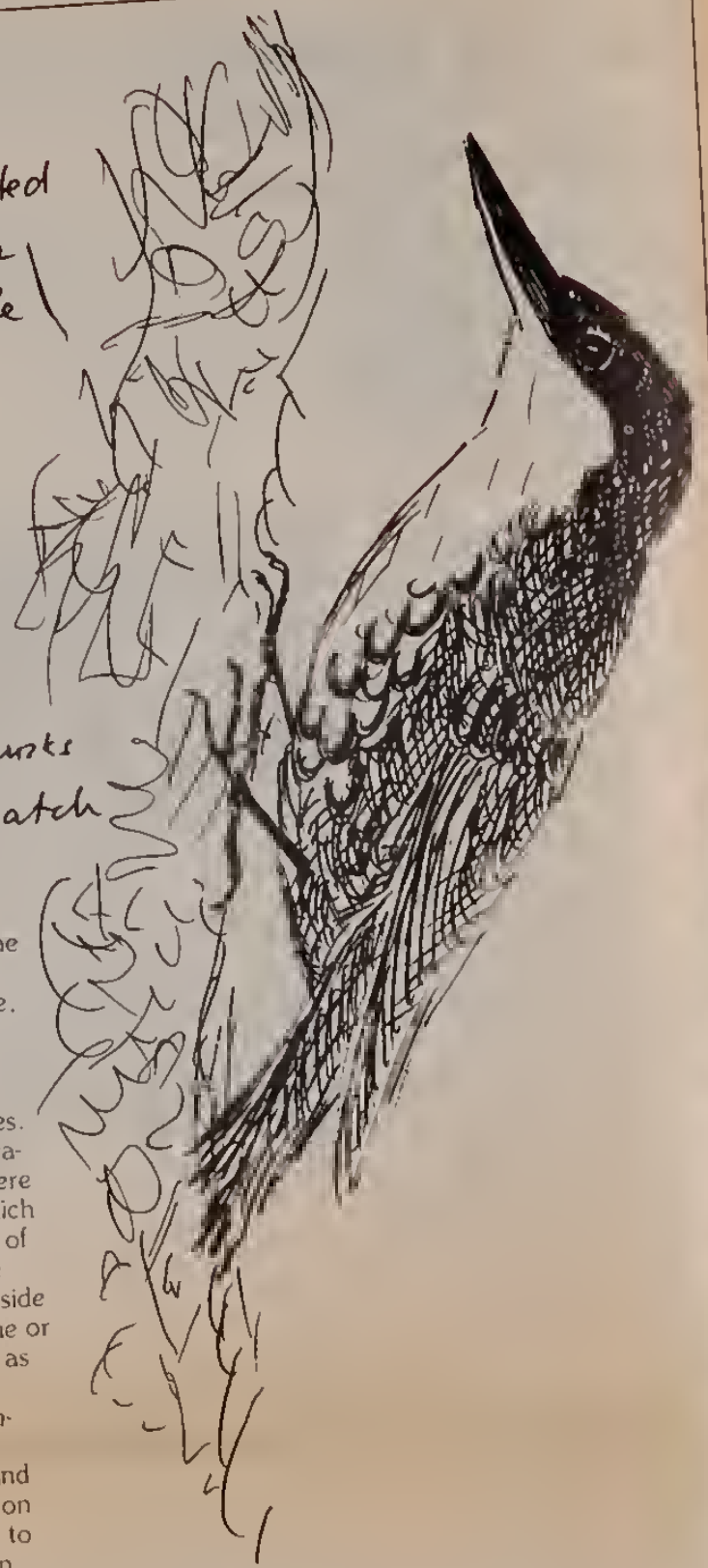
The two groups are definitely separate species?

Today, most ornithologists would probably consider them separate.

What do they look like? Are the two groups very different?

White-throated  
Treemurer  
Chile

Climbs tree-trunks  
like a Nuthatch



Actually, there are very few differences. They both have gray heads. Underneath they are bright greenish to yellow, and on the back they're greenish olive or chestnut brown. They're dainty little birds that hop on the ground to feed and then fly up to bushes or trees to nest. They look very much like our juncos.

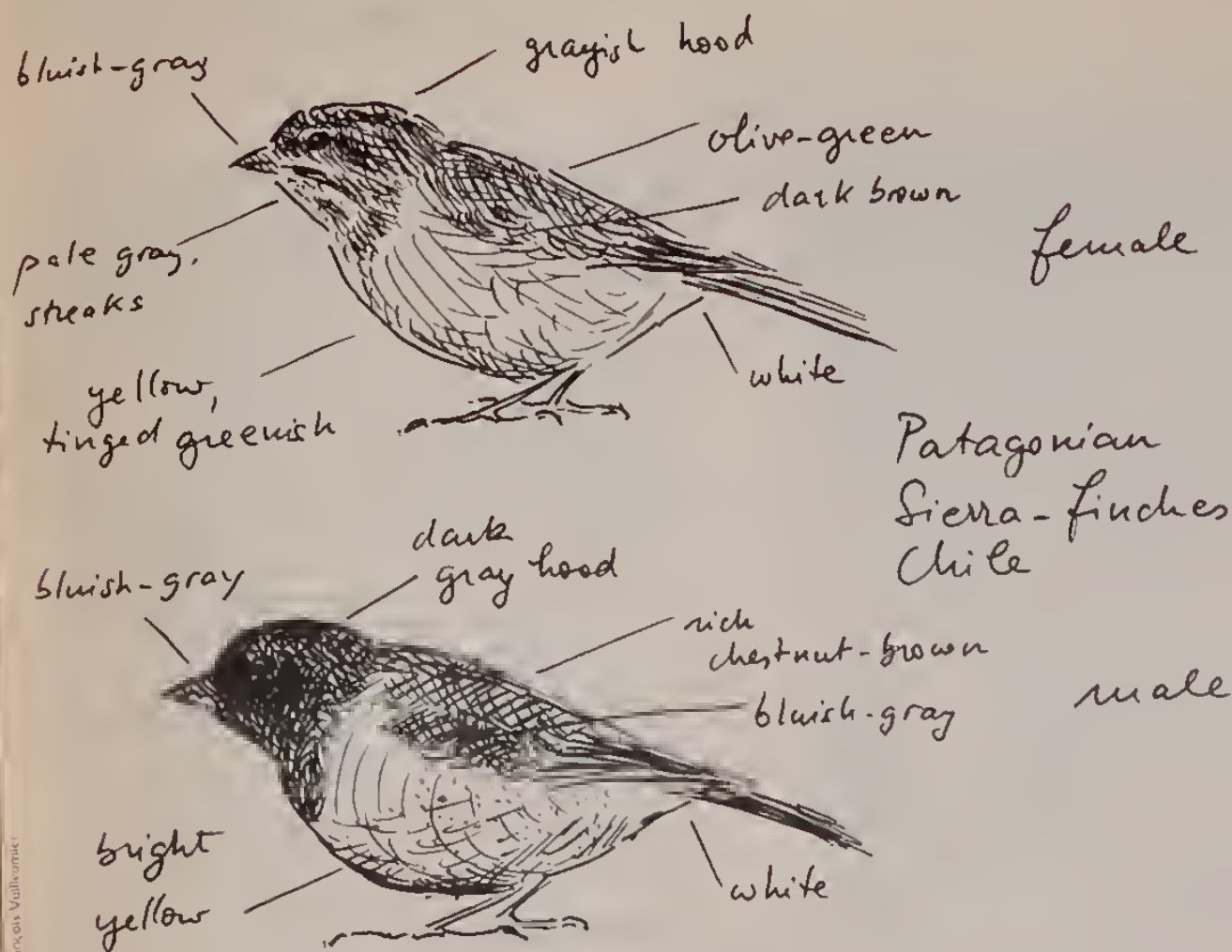
If you saw one of the forest birds and one of the steppe birds side by side . . .

You could sometimes tell them apart, particularly in full breeding plumage. The steppe male, called the gray-hooded sierra-finch, is more yellow underneath and greenish yellow on the back, and he has quite a bit of white on the underbelly. The male of the forest-dwelling species, called the Patagonian sierra-finch, is more greenish yellow underneath, distinctly chestnut on the back, and has less white on the underbelly. The female forest bird is a paler version of the male, whereas the steppe female is more brownish and has some streaks on the chest and the chin. But then, in different times of year you see birds hopping around that have any kind of plumage in between, and these are very difficult to place.

I figured if they are very closely related and if the breakdown of the forest-steppe boundary is a secondary thing that's attributable to human activities, and if I know where these places are and I find a road going through them, I will sample birds from forest to steppe and I should find hybrids. I made this hypothesis in 1984. In '85 I had National Geographic money. I chose Tierra del Fuego in Chile — a road there goes between steppe and forest — and on the first trip out we found a nest that was built by a male of the pure forest form and his mate, who looked like a pure steppe bird. They were still building the nest when we found it. We waited, and later on they laid eggs. The eggs hatched and produced three chicks, so we know they are able to produce hybrid offspring.

I couldn't collect everything the first year. These are common birds, by the way, so any sampling I did would not jeopardize any of the species in question. But the Chilean authorities allowed only 20 birds per species per year, so in order to have





enough of a sample I made three trips. These samples are still being analyzed. We have skins and tissues that are being worked on. It's a fairly comprehensive study.

It's incredible that you found a hybrid nest on your very first try.

It was very exciting, especially since the nests of these birds are not easily found.

Do the two types make the same kind of nest?

Very similar. They are cups full of rough-looking dry vegetation lined with wool and softer plant materials. The eggs look very much the same, as do the chicks. It would be hard to distinguish the species by the nest alone without seeing the adults going to it.

When we found the hybrid nest we wanted to watch the birds' behavior, so we spent an entire day watching the parents come and feed their three chicks. From just watching with binoculars it seemed that the male was pure forest form and the female was pure steppe. After watching for hours we decided we had to collect, since that's the only proof of a hybrid pair in this complex situation. I collected them, which wasn't easy because they were very stealthy in their approach to the nest.

We prepared them right away. Afterward, as I was taking notes, I thought, "My God — they're not quite what I thought they were." She was actually a hybrid, not pure steppe.

What gave them away were their weights. Later on, as we collected more birds, I realized that one of the major differences between these two wasn't color or song but weight. The steppe bird is much heavier than the forest one. The forest sierra-finch weighs usually 25 to 27 grams, both males and females (except for a female with an egg inside of her). The steppe sierra-finch usually weighs 29-31 grams. So there is at least a two-gram difference between them, which in a bird this light is a fair percentage.

After returning for a third season we plotted the birds' weights, and you can see that the pure-looking birds fall into one group of weights (either low or high) and the apparent hybrids on plumage characters fall in between.

Sometimes you can't really tell by plumage. The growth and the molt — all of this has yet to be worked out. We don't know what happens after they hatch and become fledglings — what their first plumage is, how they turn into adult plumage, what happens a year later. Are they in full adult breeding plumage a year later (as normally passerine birds are), or do they retain some juvenile features as some other birds do? None of this is known yet. So it's kind of exciting because there are still so many questions.

Have you continued to find hybrids?

In '87 and '88 I went back to the same sites and to other places. I discovered that in most sites there was no hybridization, only in two or three. I found that hybridization seems to occur in disturbed places — places that used to have more forest and now have more grassland or scrub, mostly due to sheep or cattle.

Could you say that this is an example of human destruction of habitat slowing down or even reversing "natural" evolution? In a way it's keeping the gene pool mixed instead of allowing the species to continue to separate.

That's right. You could imagine a situation in which further destruction or modification of habitat leads to more massive hybridization, and what are now probably two species hybridize so much along a common front that they will merge genetically. So natural biodiversity was to form two species from one stock. Then we came along, cut the forest for timber, opened up the steppe for sheep to graze, and perhaps these birds will go back to one gene pool.

The first three trips — in '85, '87, and '88 — I worked a lot on the finches, and the last three — in '91, '92, and '93 — much less because I was focusing on other aspects of evolution in birds of that region.

How do you decide which birds to collect when you're in the field?

There are many factors, so it's not an easy question to answer. Let's go back to the sierra-finches. You suspect that they hybridize. To prove this, you need specimens that later will tell you yes, they are intermediate between A and B. The first thing to do is to design a sampling protocol to get pure A, then pure B, then zoom in on an area where you might have AB. You try to have equal numbers of males and females, because there might be differences between the sexes in terms of plumage and other characteristics.

Essentially you collect what there is, and you're not too discriminating in that phase of the study. What you have to be careful about is going to places where there are enough of these birds so that your sample does not diminish the population. These finches are abundant. In the forest, you scatter the effort over maybe a kilometer square. As you are preparing the skins, the birds are still singing over your head. In the steppe the habitat is more open so you have to travel greater distances to get your sample. As you return, the birds are still singing along the road.

But the hybrids are not common. What is the reasoning in this case?

With the hybrids it's different — how will you or anyone know that they are hybrids until you've collected? No one will take your word if you say, "I've seen hybrids." So you need the specimens. In the case of that nest, we arrived there and saw a male forest bird and a female who looked like a steppe bird with their chicks — there was no choice. We collected them all.

How do you collect the specimens, and how do you feel about doing it?

We use a shotgun with very small lead pellets that don't damage the skin. The bird falls, clean (you have to be a good shot). You can't afford to lose a specimen — they are precious and each specimen represents information. So you sacrifice a life against the information. You don't want the wounded bird to disappear — then it will die. So I

usually do the collecting because I'm a good shot.

If I have studied a given bird for a while, I know when I've reached a limit to what I can learn about it, and I know that the individual singing out there will tell me more now if I collect him — then I collect correctly and at the right time and that bird falls dead. It's not wounded, only to disappear. I get a good specimen and take the tissues out; it's something that I follow up on. There is a certain pride in knowing I've done the job right and that we know all that we can know at present about this bird.

Many people have a problem with the taking of animal life for research. It's an issue that makes me wonder whether or not it should be said in a Museum publication.

I think it should be said, because we shouldn't hide the fact that the strength of this institution is in its specimens. Take a fossil hall: when you open a fossil hall, these specimens are long dead, we haven't killed them — fine. The rest of us who work on living insects, birds, mammals — we have to collect selectively to know what's going on.

When you had the big DDT scare in the 60s, peregrine falcon populations were going down because their eggs were so thin due to DDT ingestion. They couldn't produce good calcium. How did we find out? Because of egg shells that were taken for collection purposes early in the century, then in the teens, 40s, and 50s. The thickness and calcium content of the shells could be studied. Without the collections, the connection would have been much more difficult to make.

So I think collections are crucial to an understanding of biodiversity and that people should understand why. If they still feel we shouldn't kill, it's their business. But I think they should know that the killing of birds for collection purposes is a very small affair in the whole scheme of things. Many more birds are killed each year by vehicles on roads than in decades of scientific collecting. More birds are killed by cutting a few hectares of rain forest than we have collected since the beginning of the entire AMNH collection 120 years ago. The statistics are so clear that we make no dent.

Say you want to study biodiversity. You wouldn't know today that biodiversity in certain parts of South America used to be greater if it weren't for the birds or the bugs in the trays — they are such an important way of knowing.

By the way, most of us on the curatorial staff in the bird department and other departments are active members of conservation organizations, myself included.

Since that wonderful day in 1985, have you continued to study these particular birds?

Unfortunately, I have no new information on hybridization since '88. From '89 to '91 I spent time in other parts of the southern hemisphere, and from '91 to '93 in other parts of Patagonia. I hope to go back to the forest area, and now that I think I know what the hybrids look like, I'd like to go to the forest area of Chile, farther north where hybrids have not been described yet. To the extent that I can go from west to east, forest to steppe, and cross the boundary between the two, where people live, I'll see if I can detect some of the hybrids by field observation. These are usually fairly tame birds, so if you are prudent and walk slowly they will let you approach and you can get good views.

I don't know if I'll succeed. I do know that the Chileans have opened a new road to link central Chile with the country's southernmost part. I would guess that it zigzags in between the two environments.

Could you briefly describe some of the other projects you've been working on?

I have looked at other groups of birds of the southern beech forest, including those of Australia, New Guinea, and New Zealand. The goal is to see if the birds show similarities, just as the woods they live in do. The answer is basically no. Some of the groups are quite old in terms of bird phylogeny and the living stocks are now quite different. These areas were connected many millions of years ago. New Zealand, for example, separated as a chunk about 50 million years ago.

There must have been birds common to all these areas at first, but evolution has gone on for so long that its pathways are now hard to detect. The fossil record is very poor for older birds of southern beech forests. It is excellent for very recent birds, during the past 50,000 years. In terms of the major trends in bird evolution, however, 50,000 years is just a drop in the bucket.

Ruth Leibowitz is a writer and past editor of Rotunda. She lives in an outer borough with two cats, a turtle, and several spiders.



# Evening and Afternoon Lecture Series

## The Double-Edged Helix: Implications of the DNA Mystique

Tuesday, May 2

As research extends our understanding of the human genome and the genetic basis of disease, the media are appropriating genetic explanations to convey a message of genetic essentialism — the idea that personality, behavior, and destiny can be attributed to DNA.

Dorothy Nelkin will describe the revival of genetic essentialism, drawing examples from hundreds of stories, reports, metaphors, and images collected for her book *The DNA Mystique: The Gene as a Cultural Icon*, which was co-written with historian Susan Lindee. Nelkin will show how ideas from science are used to serve social ideologies and institutional agendas, and she'll examine whether genetic research portends a new eugenics. 7:00-8:30 p.m. \$11 for Members, \$12 for non-Members.

## Spider Webs

Two Wednesdays, May 3 and 10

May 3: *The Evolution of Spider Webs*. William A. Shear, Biology Department, Hampden-Sydney College.

May 10: *How Sticky Are Spider Webs and Why?* Brent Opell, Department of Biology, Virginia Technical University. 7:00-8:30 p.m. \$18 for Members, \$20 for non-Members (\$12 for one lecture).

## Museum Mystery Theater: "The Mask of Suspicion"

CANCELLED

The Education Department, in conjunction with Manhattan Repertory Company, presents a fascinating tale of distrust, apprehension, and evil. *The Mask of Suspicion* uses a classic Museum gallery to explore the traditions and culture of a fictional tribe, the Northwest Coast's Bella Mon Indians.

An anthropological and historical study reveals an ancient ceremonial mask of the Bella Mon that endows the wearer with special powers. Some strange accidents have happened to people in the gallery where the mask is displayed. Could the mask be responsible? A famous anthropologist will lecture on the origins of the Bella Mon masks and perhaps explain

some of these bizarre events. A wine-and-cheese reception is part of the intrigue. 7:00-8:30 p.m. \$22.50 for Members, \$25 for non-Members.

## Workshops, Field Trips, and Walking Tours

### Spring Bird Walks in Central Park

Observe the spring arrival of birds in Central Park and learn how to identify birds by field marks, habitat, behavior, and song. Pre-registration is required. Tuesdays, April 4-May 30, 7:00-9:00 a.m., and Thursdays, April 6-June 1, 9:00-11:00 a.m. \$7 per walk or \$50 for either series (no discount for Members). Limited to 25 people.

### Field Trip to Sterling Hill Mine

Saturday, June 3

Visit the last operating zinc mine in New Jersey, tour underground tunnels, and learn about mining history and technology. Joseph J. Peters, senior scientific assistant in the Department of Mineral Sciences, leads this exciting tour. Bring your own box lunch. 9:30 a.m.-5:00 p.m. \$50 (no discount for Members). Limited to 36 people.

### Bird Identification for the Beginner

Saturday, May 13

This workshop is designed to help the novice birder learn techniques of bird identification, including charting, recording, and observation. View mounted Museum specimens that represent the variety of birds in the New York area and move to Central Park for practical experience. This trip is led by Joseph DiCostanzo, research assistant on the Great Gull Island Project and past president of the Linnaean Society. 10:30 a.m.-3:00 p.m. \$40 (includes a sandwich lunch; no discount for Members). Limited to 25 people.

### Birds of the Wetlands: A Day Trip to Jamaica Bay

Saturday, May 6

An all-day bus excursion to

the marshlands and estuaries of Jamaica Bay Wildlife Refuge observes the spring migration of marsh and water birds, including herons and egrets. Naturalist Stephen C. Quinn leads the trip. Bring your own box lunch. 8:00 a.m.-5:00 p.m. Limited to 36 people. \$50 (no discount for Members).

## Geology Boat Cruises

### A Geology Cruise Around Manhattan

Tuesday, June 6

A three-hour boat trip around Manhattan surveys regional geology. Sidney S. Horenstein, coordinator of the Museum's environmental programs, will discuss the origins of the Palisades, plant and animal environments, and local history. Bring your own box supper. 6:00-9:00 p.m. \$22 for Members, \$25 for non-Members.

## The Nooks and Crannies of Western New York Harbor

Tuesday, June 13

A three-hour boat tour travels south through the bay for unusual views of the Statue of Liberty and Ellis Island. Sidney S. Horenstein, coordinator of the Museum's environmental programs, will discuss the formation of the bays and other New York waterways. Bring your own box supper. 6:00-9:00 p.m. \$22 for Members, \$25 for non-Members.

## Exploring the Brooklyn Shore Line

Saturday, June 10

A five-hour boat trip cruises along the Brooklyn shore to view forts dating back to the War of 1812. Passengers will sail under the Verrazano Narrows Bridge, pass Gravesend Bay, and travel around Coney Island toward the Rockaway outlet. Sidney S. Horenstein, coordinator of the Museum's environmental public programs, will comment on local history and ecology. Bring your own box lunch; snacks are available on board. 11:00 a.m.-4:00 p.m. \$32 for Members, \$35 for non-Members.

## Cape Cod Whale Watch Weekend

Friday-Sunday, May 19-21

This nature weekend offers insights into Cape Cod's natural and cultural history with three four-hour whale watch cruises by private charter, a guided birding walk along the trails of Wellfleet Bay Wildlife Sanctuary, and a stop at Mystic Aquarium. Fee includes transportation, two nights' lodging, meals, boat cruises, lectures, and admission to the bird sanctuary and aquarium. \$400 (double occupancy; no discount for Members). Limited to 45 people. Call (212) 769-5310 for itinerary.

## Fall Cape May Birding Weekend

Friday-Sunday, October 20-22

Join Museum naturalists for a weekend of birding at Cape May, New Jersey, one of the world's bird-watching hot spots. The trip will include naturalist-led walks, informal lectures, a stop at Brigantine

National Wildlife Refuge, and two boat trips. Fee includes accommodations, food, and transportation. \$350 (double occupancy). Limited to 45 people. Call (212) 769-5310 for itinerary.

## Still Available

Tickets are still available for the following programs. Call (212) 769-5310 for additional information.

*Challenges of Gorilla Conservation*. Thursday, April 6, 7:00-8:30 p.m. \$12.

*Geology for Travelers*. Tuesday, April 4, 7:00-8:30 p.m. \$12.

*Eight Unusual Northeastern Indian Lives*. Three Mondays, April 3-17, 7:30-9:00 p.m. \$27 for Members, \$30 for non-Members (\$12 for one lecture.)

*Evenings with the Library's Special Collections*. Three Tuesdays, April 4-18, 7:00-8:30 p.m. \$27 for Members, \$30 for non-Members (\$12 for one lecture.)

*The Films of David MacDougal*. Friday, March 31, and Saturday, April 1, 7:00-9:00 p.m. \$18 for Members, \$20 for non-Members.

## 1995 REGISTRATION COUPON

Please make check payable to the American Museum of Natural History and mail with a **self-addressed, stamped envelope** to: *Lecture Series*, Education Dept., American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192.

Please note that credit-card payment is now available and that registration will be delayed if daytime phone number or stamped, self-addressed envelope is not included. For further information call (212) 769-5310.

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Daytime telephone: \_\_\_\_\_

Membership category: \_\_\_\_\_

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Total amount enclosed: \_\_\_\_\_

Method of payment: ☐ Check ☐ MC ☐ Visa

Account no.: \_\_\_\_\_

Expiration date: \_\_\_\_\_



# Unity Through Diversity

## World Myths and Religions

The Department of Education's year-long series *Unity Through Diversity* contrasts the cultures of the New York City area. In recognition of the United Nations' Year of Tolerance, the series *World Myths and Religions* examines belief systems of the world through lectures and presentations of music, dance, and films.

For further information about these programs call the Education Department at (212) 769-5315, Monday through Friday, 9:00 a.m. to 5:00 p.m. The programs will take place in the Charles A. Dana Education Wing, on the first and second floors.

### The Power of Myth — and Religion

Tuesday, April 4

Joseph Campbell targeted myth as the aperture through which the inexhaustible energies of the universe enter the human soul. According to Huston Smith, one of Campbell's lifelong friends and colleagues, the same can be said of religion when it is alive and not just a dull habit. Smith will explore the similarities and differences between myth and religion, tracing their sources and prospects in the coming century.

Smith is the Thomas J. Watson professor of religion and distinguished adjunct professor of philosophy emeritus at Syracuse University and visiting professor of religious studies at the University of California, Berkeley. The program will take place at 7:00 p.m. in the Kaufmann Theater.

### Mythology as a Multicultural Bridge

Tuesday, April 11

In modern times people tend to turn to science for knowledge rather than to the myths and sacred texts of the past. This panel discussion examines whether it is possible to use the past to explain the present or whether there are other available resources.

Participants will elaborate on the role of mythology and other possibilities in viewing some of these questions from a multicultural perspective.

Panelists: Rex Marshall Ellis, director of the office of museum programs at the Smithsonian Institution; James P. Carse, professor of religion at NYU; and Jolene Rikard, associate professor in the Department of Art History and Art, University of Buffalo. Moderator: James J. Shields, Jr., professor and director of the Japan Initiative at City College.

The program will take place in the Kaufmann Theater at 7:00 p.m.

### Bali Myths: Culture, Image, and Reality

These programs are presented in conjunction with the exhibition *Images of Power* and reflect its representation of Balinese myths and spiritual activities.

#### Bali Film Series

Sunday, April 9

Filmmakers and anthropologists from the United States, Australia, and Japan continue to be fascinated with the cultural life surrounding Balinese dance, trance, and death. This film series looks at the approaches filmmakers have taken in depicting Bali and its culture. Films will be shown from 11:30 a.m. to 3:00 p.m. in the Kaufmann Theater followed by a discussion of the films at 3:00 p.m. Introductory remarks: Mary Catherine Bateson, honorary chairperson of the Margaret Mead Film and Video Festival.

11:30 a.m. *Trance and Dance in Bali*. (Margaret Mead, Gregory Bateson, Jane Belo, 1952. 22 min.) These filmmakers were among the first to represent Bali on film. The film records the Balinese ceremonial kris (dagger) dance-drama, which depicts the never-ending struggle

between the death-dealing and life-protecting spirits as it was performed in the village of Pagoetan in the late 1930s.

Noon. *Balinese Requiem*. (Yasuhiro Omori, 1993. 63 min.) This film traces the elaborate funeral rituals on the island of Bali, in which the recently deceased is wrapped in a shroud, buried, and later dug up for a ceremonial cremation. After one such ceremony, the film offers an intimate account of this custom and the ways in which death continues to bind the living.

1:00 p.m. *Bali Beyond the Postcard*. (Peggy Stern with David Dawkins, 1991. 60 min.) Balinese art, dance, and performance have spiritual and religious relevance and are integrated into everyday life. This film depicts the transmittal of traditional dance through four generations of a family.

2:00 p.m. *Done Bali*. (Kerry Negara, 1993. 56 min.) For nearly half a century Bali has been portrayed as an island paradise. This film explores the creation of this image and conveys a historical perspective on the

island, including a look at the impact of Dutch colonization and the current role of the Indonesian government.

3:00 p.m. *Bali's Images* (a discussion of the films). Speakers: Rachel Cooper, assistant director at the Asia Society, and independent filmmaker Meg McLagan.

### Art and Religion in Bali

Saturday, April 15

The deities and demons of Balinese Hinduism and temple rituals are integral to all aspects of Bali's everyday life. Hildred Geertz, curator of the *Images of Power* exhibition, discusses the visible and imaginative realities of the artwork in relation to Balinese religious traditions today. The program will take place in the Linder Theater at noon.

### Leonhardt People Center Programs

April 15 and 16

1:00 p.m. *Releasing the Spirits: A Village Cremation in Bali*. (Timothy Asch, Patsy

Asch, Linda Connor, 1990. 43 min.) These filmmakers have documented life on Bali for over a decade. In this film a group of villagers in central Bali with limited financial means pool their resources to carry out a group cremation.

2:00 and 3:00 p.m. Music from *Ardja*. Desak Made Suartilaksmi, one of Bali's most celebrated singers and composers of the operatic dance form *ardja*, demonstrates the complex musical, vocal, and rhythmic pattern changes of singing for a Mantri, the central character in legends.

2:00 and 3:30 p.m. *Balinese Clown Traditions*. Ron Jenkins gives a slide talk on *topeng* and *ardja* as they are performed at Balinese temple festivals.

2:30 and 4:00 p.m. *Topeng/Balinese Masked Theater*. I Nyoman Catra, master of *topeng* masked dance/drama in Bali, will enact the legend *Sidha Karya* by playing the *Penasar* (narrator) and the masks of all characters. This form of *topeng*, where one actor changes masks for all the characters of the story, is called *topeng pajegan*.



I Nyoman Catra performs at Topeng/Balinese Masked Theater on April 15 and 16

## Special John Burroughs Programs

John Burroughs (1837-1921) was a leading literary critic and a pioneer in the new school of nature writing. The John Burroughs

Association, Inc., presents programs and talks to preserve places associated with Burroughs' life and maintains Slabsides, the rustic cabin where he studied nature and wrote some of his essays.

#### Annual Meeting and Award Ceremony

The John Burroughs Association's annual meeting will take place on Monday, April 3, from 10:30 to 11:45 a.m. in the Leonhardt People Center. The meeting will be followed by the annual lunch

and book award ceremony, which will take place from noon until 2:00 p.m. in the Leonhardt People Center.

The association, which was founded and is still based at the American Museum, will announce the awards for its sixty-eighth annual literary medal award competition for exceptionally fine nature writing. Awards will also be announced for the sixth annual competition for the John Burroughs List of Nature Books for Young Readers and the second annual competition for an Outstanding

Published Natural History Essay.

#### Slabsides Day and Centennial Celebration

Join the friends of the John Burroughs Association on Saturday, May 20, for the centennial celebration "Slabsides: The First Hundred Years." This special event,

which will begin at noon, is presented in honor of the cabin's one hundredth anniversary.

Slabsides is located in West Park, New York, on the Hudson River, 80 miles north of New York City and 10 miles south of Kingston. For more information call (212) 769-5169.

Support for Education Department programs is made possible by gifts and grants from Chase Manhattan Bank, Chemical Bank, Citicorp/Citibank, Henry Kiss Foundation, Inc., Jark and Susan Rosten Educational and Scholarship Fund, the Lila Acheson Wallace Fund and the New York Community Trust.

Leonhardt and Mary Rosten Foundation, the Aaron Diamond Foundation, the City of New York, the Office of the Borough President of Manhattan, the Viola L. Gorman Foundation, William Randolph Hearst Foundation, and the family of Frederick H. Leonard.



## Naturemax

The IMAX film *Africa: The Serengeti* explores the relationships between predator and prey by following the great migration of wildebeests, zebras, and other animals. Showtimes are 10:30 and 11:30 a.m. and 1:30 and 3:30 p.m. daily.

*Yellowstone* takes viewers on a journey to the national park to discover its history, geology, and wildlife. Showtimes are 12:30, 2:30, and 4:30 p.m.

On Friday and Saturday at 6:00 and 7:30 p.m., *Africa: The Serengeti* is shown on a double bill with *Yellowstone*. Schedules and prices are subject to change without notice. Call (212) 769-5650 for further information.

**Admission** (Participating and Higher Members)

Adults: \$4.75 single feature; \$6 double feature

Children: \$2.25 single feature; \$3.25 double feature

## Cruising Norway's Coast

There is no better way to see the mostly coastal country of Norway than by sea. And no vessels see more Norwegian seacoast than the express mail boats that provide vital contact for countless tiny fishing villages and historic hamlets strung along 1,250 miles of coastline. For more than 100 years, Norway's coastal steamers have carried mail, supplies, and passengers between the ancient city of Bergen and the North Cape town of Kirkenes.

Now for the first time, Discovery Cruises/Tours is offering *Arctic Dreams*, a cruise aboard one of these beloved mail boats, the *MS Richard With*. Although the sailing schedule is always dictated by local conditions and deliveries rather than passengers' convenience, this voyage reveals a world of unrivaled beauty that can be seen in no other comfortable way. Hurtigruten, Norway's mail boat system, is a lifeline for the fishing villages and small towns along the western coast. Warmed by the Gulf Stream, this dramatically beautiful coastline supports populations in areas

that are accessible only by sea, some of them north of the Arctic Circle. The natural scenery along this route includes stunning fjords carved by glaciers, lofty mountains, deep sea channels, dramatic islands, snow, and ice. The sun never sets for periods during the summer in these northern latitudes, and it casts a glow over the coastline's scenic splendor.

The adventure begins with two nights in Oslo, followed by a train trip to Bergen. The coastal voyage consists of seven days traveling northward from Bergen to Kirkenes, situated beyond the North Cape in Norway's largest county, Finnmark. In addition to planned shore excursions, regularly scheduled lectures by AMNH specialists will enrich the participants' understanding.

Price (per person, double occupancy for the air/land/cruise package): \$5,400. For further information, call Discovery Cruises/Tours at (800) 462-8687 or in New York State at (212) 769-5700, Monday through Friday, from 9:00 a.m. until 5:00 p.m.

## DINOSAURS ARE THE LATEST THING FOR LUNCH!

Come try **DINER SAURUS**, a fun-loving, fast service eatery that literally glows with neon dinosaurs!

Featuring our  
**MEAL-O-SAURUS**  
**DINO SIPPERS**  
**DINO FRIES**

And our latest addition:

**LUCKY NICKEL**  
**BUFFALO WINGS**

Hours: 11 am - 4:45 pm, Mon. - Sun.  
On lower level, next to the Garden Cafe.

DINER SAURUS is available for birthday parties.  
Please contact our manager at 874-3131.



## Educational Forum

### The Endangered Species Act

Thursday, April 13  
7:00 p.m.

**CANCELLED**

What do the peregrine falcon, piping plover, and bald eagle have in common? They are all endangered or threatened species living within New York City. Thanks to the federal Endangered Species Act, a landmark law, these and other species are still with us. Learn about why keeping the act strong is critical, not only for animals and plants but also for the health of the environment and ourselves.

The panel discussion will be followed by a question-and-answer period. This free program, which will take place in the Linder Theater, is sponsored by the Endangered Species Coalition. Call (212) 769-5750 for further information.



Peregrine falcon

## From the Volunteer Department

### Volunteers Needed

*Expedition: Treasures from 125 Years of Discovery* is well under way and is a great success for both the Expedition volunteers and the visiting public. There are still a few spaces left for volunteers. Call Donna Sethi at (212) 769-5523 for additional information.

### Festival of Life Saturday, April 8

A team of Museum volun-

teers will present a three-chapter overview of life on earth. These free tours are 90 minutes long each.

Chapter 1: "In the Beginning." Hear the story of the origin of the universe, the formation of earth, and the processes that led to life as we know it.

Chapter 2: "Circle of Life." Travel our anthropology halls to learn how disparate cultures view and interpret life.

Chapter 3: "Basic Instinct."

How do earth's inhabitants reproduce? We will conclude our story with the challenge confronting *Homo sapiens*: how to preserve and protect life for ourselves and future generations.

Chapter 1 takes place at 2:00 p.m., chapter 2 at 4:00 p.m., and chapter 3 at 6:00 p.m. Call (212) 769-5566 to preregister. Tours are limited to 35 people; priority will be given to those who register for all three tours.

## Members' Birthday Parties at the Museum

A new theme party offers young Members a chance to celebrate their birthdays within the arachnid world. The Spiders! parties feature a guided tour of the Gallery 3 exhibition and related games and craft activities — a unique way for young Members and their friends to celebrate.

Other theme parties for Members between the ages of 5 and 10 focus on fossil mammals, dinosaurs, African mammals, reptiles and amphibians, ocean dwellers,

Native Americans, and minerals and gems. In addition to Spiders!, another new theme party offers party-goers a look at one of the Naturemax films.

The group should be no fewer than 10 and no more than 20. The fee is \$300 plus \$15 per child and covers all materials and the services of a Museum party coordinator. The coordinator will help you

plan a party that suits your child's tastes and will handle everything from candles to party favors. All you need to do is bring the cake and help escort the guests. The parties, which are two hours long, are available only to Members at the Contributor (\$100) and higher levels.

For more information about the children's birthday parties call (212) 769-5542.

The Membership Office would like to thank the following young Members who celebrated their birthdays here recently: Constance Moussouris, Brett Caesar, Mary Katherine Thinner, Allegra Yeley, and Christa Minardi.

## Parking

The Museum's parking lot now offers expanded hours and revised rates. The parking lot is open every day from 7:00 a.m. till 11:30 p.m. Rates for cars entering

between 7:00 a.m. and 5:00 p.m. start at \$5 for up to a half-hour and advance by stages to a closing-time maximum of \$17. Cars entering between 5:00 p.m. and 11:30 p.m. are charged a minimum of \$5 and a maximum of \$7 on Sunday through Thursday and a maximum of \$12 on Friday

and Saturday.

Buses are charged \$11 and are not admitted on weekends.

The parking lot has a capacity of 100 vehicles and is operated on a first-come, first-served basis.

Call (212) 769-5606 for information about alternative parking.



## Spiders in Film!

The current Gallery 3 exhibition explores the world of spiders, and a related program, *Spiders in Film!*, examines the accuracy of motion pictures in their portrayal of these arachnids. A panel of scientists will comment on selections from documentaries and Hollywood films.

This free program will take place on Saturday, April 1, from 1:00 to 3:30 p.m. in the Linder Theater. Call the Education Department at (212) 769-5310 for further information.



## Museum Notes

### Hours

#### Exhibition Halls

Mon.-Thurs. & Sun. .... 10:00 a.m.-5:45 p.m.  
Fri. & Sat. .... 10:00 a.m.-8:45 p.m.

#### The Museum Shop

Mon.-Thurs. & Sun. .... 10:00 a.m.-5:45 p.m.  
Fri. & Sat. .... 10:00 a.m.-7:45 p.m.

#### The Junior Shop

Mon.-Fri. .... 10:00 a.m.-4:45 p.m.  
Sat. & Sun. .... 10:00 a.m.-5:45 p.m.

#### The Museum Library

Tues.-Fri. .... 11:00 a.m.-4:00 p.m.

#### The Natural Science Center

For children of all ages and their families.

Closed on Mondays and holidays.

Tues.-Fri. .... 2:00-4:30 p.m.  
Sat. & Sun. .... 1:00-4:30 p.m.

#### The Discovery Room

Passes are distributed at the first-floor information desk beginning at 11:45 a.m. Ages 5-15.

Children must be accompanied by an adult.

Closed on holidays and weekdays.

Sat. & Sun. .... Noon-4:30 p.m.

### Museum Dining

#### Diner Saurus Fast Service Eatery

Daily .... 11:00 a.m.-4:45 p.m.

#### Garden Cafe

Reservations: (212) 769-5865

Lunch: Mon.-Fri. .... 11:30 a.m.-3:30 p.m.

Dinner: Fri. & Sat. .... 5:00-7:30 p.m.

Brunch: Sat. & Sun. .... 11:00 a.m.-4:00 p.m.

#### Whale's Lair

Fri. .... 3:00-8:00 p.m.

Sat. .... Noon-8:00 p.m.

Sun. & most holidays .... Noon-5:00 p.m.

#### Snack Carts

Sat. & Sun. .... 11:00 a.m.-4:00 p.m.

### Entrances

During Museum hours visitors can enter the building through the 77th Street entrance, the parking lot entrance (81st Street), or the Roosevelt Memorial Hall entrance (79th Street and Central Park West). Visitors attending programs after hours can enter the building at 79th Street and Central Park West.

## Happenings at the Hayden

### Public Forum on Near Earth Objects

Tuesday, April 25  
8:00 p.m.

How should society respond if a comet were discovered on a collision course with earth? Neil de Grasse Tyson, an astrophysicist with the Hayden Planetarium and Princeton University, will moderate a forum on near earth objects. Panelists include the noted physicist and futurist Freeman Dyson, of the Institute for Advanced Study, asteroid impact specialist David Morrison of NASA, and other experts.

The panel discussion will focus on the potential threat to human survival after a major comet or asteroid collision with earth and offer ideas about avoiding such a catastrophe. The program will conclude with a 30-minute question-and-answer session.

Tickets are \$10 for Members and \$12 for non-Members. Seating is limited. Use the coupon below to order tickets, and for further information call (212) 769-5900.

### Lectures

#### Frontiers in Astronomy and Astrophysics

On Monday, April 10, at 7:30 p.m., Torrence Johnson, senior research scientist at the Jet Propulsion Laboratory, will present an illustrated talk, "The Galileo Mission to Jupiter."

On Monday, May 8, at 7:30 p.m., Alex Filippenko, professor of astronomy at the University of California at Berkeley, will present an illustrated talk, "Exploding Stars — Celestial Fireworks."

These lectures are part of the *Frontiers in Astronomy and Astrophysics* series. Tickets are \$6 for Participating and Higher Members and \$8 for non-Members. For information about ticket availability and upcoming lectures, call (212) 769-5900. Use the coupon at right to order tickets.

### Sky Show

### The Ten Most-Asked Questions about the Universe

What is a black hole? Is there life elsewhere in the universe? Does Planet X exist? Are UFOs real? When is the best time to see the Northern Lights? What is at the edge of the universe? How will the universe end? This Sky Show answers these and other frequently asked questions about space.

#### Showtimes:

Mon.-Fri. .... 1:30 and 3:30 p.m.

Sat. .... 11:00 a.m. (except for April 1 and May 6), 1:00, 2:00, 3:00, 4:00, and 5:00 p.m.

Sun. .... 1:00, 2:00, 3:00, 4:00, and 5:00 p.m.

#### Admission (Participating and Higher Members)

Adults: \$4

Children (2-12): \$2

Call (212) 769-5100 for additional information and non-Members' prices. Please note that prices are subject to change without prior notice.

### Exhibition

#### The Universe Revealed: Recent Images from the Hubble Space Telescope

This exhibition features photographs of recent discoveries made by the Hubble Space Telescope, including the M87 galaxy (which proves the existence of black holes) and images of the Shoemaker-

Levy 9 comet strikes on Jupiter. A 1:15 scale model of the Space Shuttle Orbiter deploying the Hubble is on display, along with a scale model of the Optical Telescope Assembly of the Hubble Space Telescope and a video of the repair mission of December 1993.

### Children's Shows

*Wonderful Sky* is a special Sky Show for preschoolers. Children sing along with images of their favorite Sesame Street Muppets as they learn about rainbows, the phases of the moon, sunsets, and stars. Sat., April 1, at 10:30 and 11:45 a.m., and Sat., May 6, at 10:30 a.m. Admission for Participating and Higher Members is \$4 for adults and \$2 for children. Members can purchase up to four tickets at the Members' price.

Shows usually sell out in advance; reservations, by mail only, are necessary. Make your check payable to the Hayden Planetarium (attn: Wonderful Sky, Central Park West at 81st Street, New York, NY 10024-5192); indicate membership category and a first and second choice of showtimes. Be sure to include a self-addressed, stamped envelope and your daytime telephone number. For additional information call (212) 769-5900.

*Robots in Space* features Lucasfilm's R2D2 and C-3PO and has been created especially for children ages 7 to 12. Together with a live host, these famous space robots take children on a tour of the universe. See how satellites and probes — the real space robots — help us learn about worlds near and far. Journey from the earth to other planets and distant black holes. Sat., May 6, at 11:45 a.m. Admission for Participating and Higher Members is \$4 for adults and \$2 for children. For information, call (212) 769-5900.

### Laser Light Shows

Journey into another dimension where laser visuals and rock music combine to create a dazzling 3-D experience of sight and sound. Shows are presented on Fridays and Saturdays at 7:00, 8:30, and 10:00 p.m. For prices and show schedule, telephone (212) 769-5100.

#### Public Forum on Near Earth Objects

Tuesday, April 25, 8:00 p.m.

Number of Members' tickets at \$10

(no more than 4, please): \_\_\_\_\_

Number of non-Members' tickets at \$12: \_\_\_\_\_

Total amount enclosed for program: \_\_\_\_\_

#### Lecture: "The Galileo Mission to Jupiter"

Monday, April 10, 7:30 p.m.

Number of Members' tickets at \$6

(no more than 4, please): \_\_\_\_\_

Number of non-Members' tickets at \$8: \_\_\_\_\_

Total amount enclosed for program: \_\_\_\_\_

#### Lecture: "Exploding Stars — Celestial Fireworks"

Monday, May 8, 7:30 p.m.

Number of Members' tickets at \$6

(no more than 4, please): \_\_\_\_\_

Number of non-Members' tickets at \$8: \_\_\_\_\_

Total amount enclosed for program: \_\_\_\_\_

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Daytime telephone: \_\_\_\_\_

Membership category: \_\_\_\_\_

Please make check payable to the Hayden Planetarium and mail with a **self-addressed, stamped envelope** to: Lecture, Hayden Planetarium, Central Park West at 81st Street, New York, NY 10024-5192.

Please note that ticket orders are subject to availability and cannot be processed without telephone number and stamped, self addressed envelope. **Do not include ticket requests or checks for American Museum programs.**



Sun

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April 1995

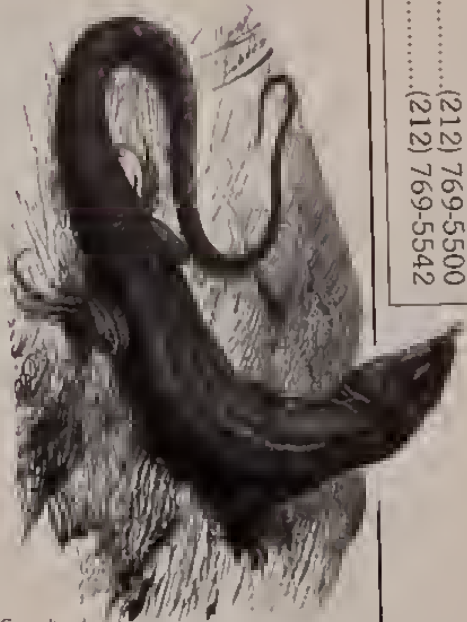
# American Museum of Natural History

**2 1:00-5:00 p.m.** *World Myths and Religions*. Leonhardt People Center. Free. Page 9.

**3 10:30 a.m.** Annual Meeting and Award Ceremony of the John Burroughs Association. Leonhardt People Center. Page 9.

**4 7:00 p.m.** *The Power of Myth — and Religion*. Kaufmann Theater. Free. Page 9.

**5 7:30 p.m.** Amateur Astronomers Association. Speaker, Michio Kaku, City University. "Hyperspace: Time Warps in the Tenth Dimension." Kaufmann Theater. Free.



Green lizard

**8 1:00-5:00 p.m.** *World Myths and Religions*. Leonhardt People Center. Free. Page 9.

**1 1:00-3:30 p.m.** *Spiders in Film!* Linder Theater. Free. Page 11.

**1:00-5:00 p.m.** *World Myths and Religions*. Leonhardt People Center. Free. Page 9.

**9 11:00 a.m., 12:30 and 2:00 p.m.** *The Mouse in the Matzoh Factory*. Members' adult-child workshop. Page 2.

**11 3:00 a.m.-3:00 p.m.** *Bolli Film Series*. Kaufmann Theater. Free. Page 9.

**1:00-5:00 p.m.** *World Myths and Religions*. Leonhardt People Center. Free. Page 9.

**10 7:30 p.m.** *Frontiers in Astronomy and Astrophysics*. Speaker: Torrence Johnson, Jet Propulsion Laboratory. "The Galileo Mission to Jupiter." Planetarium Sky Theater. \$6 for Members, \$8 for non-Members. Page 11.

**11 7:00 p.m.** *Mythology as a Multicultural Bridge*. Kaufmann Theater. Free. Page 9.

**7:30 p.m.** Linnaean Society of NY. Speaker, Les Line, former editor, Audubon magazine. "The Written Bird." Linder Theater. Free.

**12 5:30 p.m.** NY Mineralogical Club. Room 319. Free.

**7:00 p.m.** *Zebra Mussels: Alien Invaders*. Members' evening program. Kaufmann Theater. \$6 for Members, \$9 for non-Members. Page 2.

13

**14** Good Friday. The Museum is open.

**15** Passover.

**1:00-5:00 p.m.** *World Myths and Religions*. Leonhardt People Center. Free. Page 9.

**Noon.** *Art and Religion in Bali*. Linder Theater. Free. Page 9.

**16** Easter. The Museum is open.

**1:00-5:00 p.m.** *World Myths and Religions*. Leonhardt People Center. Free. Page 9.



Red-throated anole

**23 2:00 p.m.** NY Paleontological Society. Room 319. Free.

**1:00-5:00 p.m.** *World Myths and Religions*. Leonhardt People Center. Free. Page 9.

**30 1:00 p.m.** NY Mycological Society. Room 319. Free.

**1:00-5:00 p.m.** *World Myths and Religions*. Leonhardt People Center. Free. Page 9.

**18 10:30 a.m.-noon** *Ugh! A Bug!* Members' spring break workshop. Page 2.

**7:00 p.m.** NY Entomological Society. Room 319. Free.

**7:30 p.m.** *Sea Change*. Lecture by marine biologist Sylvia Earle. Kaufmann Theater. Free. Page 3.

**19 10:30 a.m.-noon** *By the Power of Their Dreams*. Members' spring break workshop. \$18, and open only to Participating and Higher Members. Page 2.

**20 10:30 a.m.-noon** *125 and Still Counting*. Members' spring break workshop. \$18, and open only to Participating and Higher Members. Page 2.

**21 6:00, 6:30, 7:00, and 7:30 p.m.** Members' guided tours of *Images of Power in Gallery 77*. Page 2.

**6:30-8:00 p.m.** April Showers. Members' workshop for adults. Page 2.

**8:00 p.m.** American Littoral Society. Kaufmann Theater. Free.

**27 7:00 p.m.** NY Microscopical Society. Room 319. Free.

**28 4:00, 5:30, and 7:00 p.m.** *Ages of Rock*. Members' Museum tour. \$16, and open only to Participating and Higher Members. Page 2.

## Expansion and Stasis in Human Brain Evolution: Analyses of the Limbic System, Cortex and Brain Shape

The sixty-fifth annual James Arthur Lecture will be given by Este Armstrong on Monday, April 17, at 6:00 p.m. in the Kaufmann Theater. Armstrong is a comparative neuroanatomist who is currently working on advance imaging techniques and consulting on geographical information systems and the human brain.

This lecture is free and open to the public; no tickets are necessary. Call (212) 769-5882 for further information.



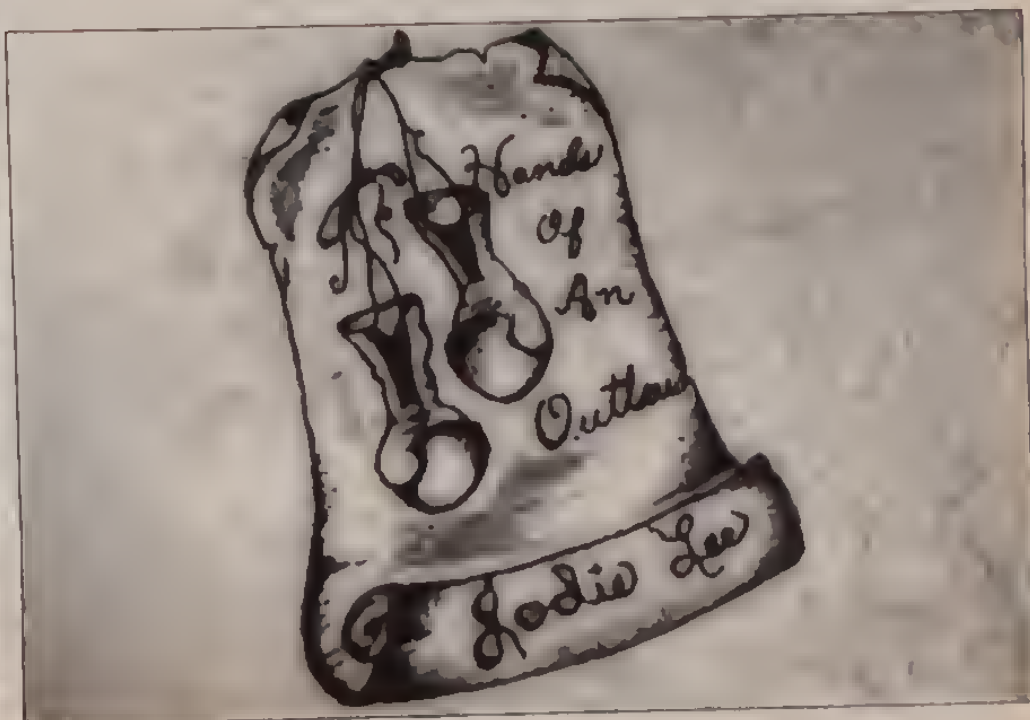
# ROTUNDA

For Participating and Higher Members of the American Museum of Natural History

Vol. 20, No. 5 May 1995



*Fine-line details are evident in this close-up of the back of a former state prisoner*



*This tattoo was acquired after the wearer's girlfriend destroyed memorabilia from his 17-year prison boxing career*



*Time dots, each of which represents one year in prison*



*Complex tattooing on legs is unusual, even among inmates*

## Prison Tattoos

Tuesday, June 20

7:00 p.m.

Kaufmann Theater

\$8 for Members, \$12 for non-Members

According to the Book of Genesis, God placed a mark on the world's first murderer before sending him into exile. The mark of Cain proclaimed its bearer as a criminal and social outcast, and for centuries prisoners and other criminals were forcibly tattooed with numbers and other marks that made them easy to identify, locate, label, and isolate.

Today the vast majority of men behind bars in the United States are tattooed, most of them voluntarily. Chris Brady of the Idaho State Historical Society will discuss the distinctive style and symbolism of prison tattoos,

which are significantly different in looks and meaning from other tattoos.

For instance, prison tattoos aren't colorful. The designs are all black, and the wearers tend not to add color to them when they have the opportunity. The single-needle technique, which features fine lines and shading, sets prison tattoos apart from outside work — although the style was imitated in the mid-1970s by outside tattoo artists.

Inmates are skilled at reading each other's tattoos, which can tell them who to be friends with and who to stay away from or reveal the wearer's

crime or the length of his sentence. (Only 5 percent of US convicts are female; tattooing is not a common prison activity among them.)

Like prisoners, gang members and enlisted men often sport tattoos. These three groups share certain characteristics: their senses of individual identity are taken away or lessened, and they are deprived of the usual forms of self-expression. Clothing, activities, possessions, and relationships are controlled by gang, prison, or military policy. What the individual puts on his skin is a form of nonverbal communication for all to

see. Within the prison culture, inmates say that tattoos are a visual record of their lives that offer a sense of belonging and show that the recipient can handle pain.

Chris Brady is historic sites administrator at the Idaho State Historical Society, which is located at Old Idaho Penitentiary. This program is presented in conjunction with a permanent exhibition on tattooing at the historical society. Brady, whose training is in textiles and clothing history, is working on a traveling exhibition.

Use the May Members' programs coupon on page 3 to register.



## Members' Adult-Child Workshop

### Native American Bead Weaving

Sunday, May 21

Parents and children can learn a traditional craft together at a workshop on Native American bead weaving. They'll find inspiration among the exhibits in the halls of Plains Indians and Eastern Woodlands Indians, where many of the displays include colorful beaded jewelry and other ornaments. Then they'll make a simple loom and

learn weaving techniques. Participants will use seed beads to make earrings, bracelets, rings, and other jewelry.

The 90-minute workshop will be conducted by Carol Bowen, a museum educator at the Staten Island Children's Museum who has taught people of all ages for ten years at museums and public schools.

The workshops, which are geared toward participants ages 8 and older, will take place at 11:00 a.m. and 1:30 p.m. Tickets are \$26 per couple and available only to Participating and Higher Members. Enrollment in this workshop is limited to 22 couples. Use the coupon on page 5 to register; tickets are available only by mail.

### Collecting Fossils in the Sands of Mongolia

Following in the Footsteps of Roy Chapman Andrews

Thursday, May 4

Every year since 1990 scientists from the American Museum have worked with colleagues from the Mongolian Academy of Sciences in exploring the Gobi's rich fossil beds, which are the source of many spectacular fossil finds. Priscilla and Malcolm McKenna will talk with

Members about their experiences on a series of paleontological expeditions in the Gobi Desert.

Malcolm McKenna, who is Frick Curator of Fossil Mammals in the Department of Vertebrate Paleontology, will discuss scientific aspects of the expedition, and Priscilla

McKenna will talk about logistics, navigation, camp life, and the nomadic people of the Gobi.

The program will take place at 7:00 p.m. in the Kaufmann Theater. Tickets are \$6 for Members and \$9 for non-Members. Use the coupon on page 3.

### Members' Walking Tour of a Manhattan Mosque

Saturday, May 20

Members can take a guided tour of a Manhattan mosque at 96th Street. The mosque, which was completed in 1991, was built by the Islamic Cultural Center Foundation.

Architect Mustafa Abadan, who was the building's senior designer, will lead the tour

of the mosque's interior and offer an overview of its exterior. He'll begin with an introduction to Islamic architecture and describe the attempts to interpret traditional motifs within a modern-day urban context.

The tour will take place

from 11:00 a.m. to 12:30 p.m. Tickets are \$20 and available only to Participating and Higher Members ages 16 and older. Women should be sure to wear a head covering. Use the coupon on page 5 to register; tickets are available only by mail.

### Spring Cruise on Long Island Sound

Sunday, May 7

Spend a spring afternoon speeding along Long Island Sound on this Members' cruise. Participants will travel from the foot of Wall Street up the East River, through Hell Gate, and beneath the Throgs Neck Bridge into the sound. They'll view both the New York and Connecticut

shorelines on the way to New Haven Harbor and back.

Sidney Horenstein, the Museum's coordinator of public programs, will host the cruise and point out landmarks along the way. He'll discuss the origins of the sound, the geology of the shorelines, and the history of

some of the shoreline towns.

The cruise will take place from noon to 4:00 p.m. Tickets are \$55 for Members and \$65 for non-Members. Bring a bag lunch; refreshments are available on board. Use the coupon on page 5 to register, and please note that tickets are available only by mail.

### Last chance to see Images of Power



The Gallery 77 exhibition *Images of Power: Balinese Paintings Made for Gregory Bateson and Margaret Mead* features 100 items collected by the anthropologists during their fieldwork in Bali during the 1930s. These paintings are strikingly different from traditional Balinese art forms and reveal much about Bali that was previously unknown to Westerners. The exhibition is on display through May 3.

## Sexual Legacies

How Ancient Gender Differences Influence Our Lives in the Office and the Home

Thursday, May 11



Why can't a man be more like a woman? Why can't a woman be more like a man? At the Members' program *Sexual Legacies* anthropologist Helen Fisher will explore gender differences in behavior and the brain.

Fisher will use slides to trace the evolution of male/female variations back to their origins among our hunting and gathering ancestors on the grasslands of Africa some 4 million years ago. She'll explain how our modern Western myths about the genders emerged with the agricultural revolution. Using these data on gender legacies, Fisher will offer an anthropological perspective on contemporary issues, including intimacy, sexuality, romantic love and infidelity, flirting and sexual harassment, communication styles, and gender tactics in

business and family life. She'll conclude with several predictions about women, men, sex, and power in the coming decades.

A research associate in the Department of Anthropology at Rutgers University, Fisher has written numerous scholarly and popular articles and books. Her most recent book, *Anatomy of Love: A Natural History of Mating, Marriage, and Why We Stray*, was chosen as a notable book of 1994 by the *New York Times* and has been published in 16 countries. She is host of the 1995 four-part television series, *Anatomy of Love*, which is based on this book.

The program will take place at 7:00 p.m. in the Main Auditorium. Tickets are \$7 for Members and \$10 for non-Members. Use the May Members' programs coupon on page 3 to register.

## ROTUNDA

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## Seeing New York: History Walks for Armchair and Footloose Travelers

Tuesday, June 27  
7:00 p.m.  
Kaufmann Theater  
\$5 for Members,  
\$8 for non-Members

Members can hear a fascinating account of New York's social history, architecture, and culture at the program *Seeing New York: History Walks for Armchair and Footloose Travelers*. Historian Hope Cooke believes that many of us live like exiles in our own surroundings; to remedy this, she'll take listeners off the beaten path to discover how social change has reworked New York's terrain.

The program will be based on Cooke's book, *Seeing*

*New York*, which is available from Temple University Press. "As if taking us by the hand and conducting us from street to street," remarked architectural writer Brendan Gill, "Cooke evokes the sights and smells and sounds of all those earlier New Yorks. . . . Wherever she leads us, we are happy to follow." The book will be available for purchase at the program, and Cooke will sign copies after the show.

Use the coupon at right to register for the program.

## Carlota Santana Spanish Dance Company

Thursday, June 8  
8:00 p.m.  
Main Auditorium  
\$15 for Members,  
\$20 for non-Members

The passionate flamenco is the root of Spanish dance and the focus of a performance by the Carlota Santana Spanish Dance Company. The company, which was founded in 1983 with the mission of preserving traditional dance, combines flamenco with original choreography influenced by salsa and jazz. Spanish dance for

this company is educational as well as entertaining; it's a way to break down cultural barriers with deep plies, open arms, expressive movements, and new rhythms.

Their repertoire will embrace the varied styles of Spanish dance from classical to folkloric to flamenco. From the sounds of the classical music of Albeniz to the gypsy chants of the *cante jondo* (deep song), the company portrays the roots of Spanish music and dance, which have had a great influence on the music of the Americas.

Touring with six to eight dancers and musicians, the ensemble has appeared to great critical acclaim on major dance stages throughout the United States, including the Joyce Theater in New York City, Albany's Empire State Performing Arts Center, the Schubert Theater in Connecticut, and many others. Use the May Members' programs coupon at right to register.



Carlota Santono  
and Monolo Rivero

## Pueblo Myths

For adults  
Friday, June 16  
7:00 p.m.  
Linder Theater  
\$8 for Members, \$12 for non-Members

For children, ages 7-12  
Saturday, June 17  
11:00 a.m.  
Edith C. Blum Lecture Room  
\$10, and open only to Participating and Higher Members' children (no adults)

Many years ago in a small Indian community in New Mexico, a grandmother and a girl would pass the time of day in the trading post where the girl worked. On cold mornings they would have a cup of tea in front of the store's potbellied stove, and the grandmother would talk.

"It is important to listen," she told the girl. "You find the time to listen. I am old; few listen to old people. These stories are important, so someone should listen and remember so all is not lost."

The girl listened, and the grandmother shared the oral legacy of generations of storytellers. Today Teresa Pijoan tells others the stories she first heard in San Juan Pueblo's trading post — tales of magic

and faith, creation and regeneration. The storyteller/author will come to the Museum next month to present two Members' programs, an evening show for adults and a morning program for children, in which she'll relate some of the enchanting myths of New Mexico's native Tewa people.

At the program for adults, Pijoan will perform the creation myth of Awonawilona with her face painted in two shades — half in black (representing Father Sky), and half in white (for Mother Earth). She'll also tell a Tewa story (from Taos and Picuris Pueblo), "Nah-chu-ru-chu Keeps Moon Woman," and a Spanish Pueblo tale called "El Angel del Alcalde," the

humorous story of a young woman who marries an older man.

At the children's program, Pijoan will tell the Iroquois tale "The Flying Head": a creation myth; "The Shortest Story Ever Told"; and "Ah-ha-a uu-Tah and the Cloud Eater." The program will include movement, exercise, and total group participation. Children will learn to speak some Tewa words, use Indian Sign Language, greet in the traditional Pueblo way, and learn to be a "storyholder."

Each program is approximately one hour long. Use the coupon at right to register for the adults' program. Tickets for the children's program are available only by mail; use the coupon on page 5.

## May Members' Programs Coupon

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Daytime telephone: \_\_\_\_\_

Membership category: \_\_\_\_\_

Total amount enclosed: \_\_\_\_\_

Please make check (if applicable) payable to the American Museum of Natural History and mail with a **self-addressed, stamped envelope** to: May Members' Programs, Membership Office, American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192. **Telephone reservations are not accepted. No refunds or exchanges.**

**Unless otherwise indicated, no more than eight tickets may be ordered for a program. Participating Members are entitled to four tickets per program at the Members' price. Higher Members are entitled to six tickets, and Associate Members are entitled to one ticket.**

### Collecting Fossils in the Sands of Mongolia

Thursday, May 4, 7:00 p.m.

Number of Members' tickets at \$6: \_\_\_\_\_

Number of additional tickets at \$9: \_\_\_\_\_

Total amount enclosed for program: \_\_\_\_\_

### Sexual Legacies. Thursday, May 11, 7:00 p.m.

Number of Members' tickets at \$7: \_\_\_\_\_

Number of additional tickets at \$10: \_\_\_\_\_

Total amount enclosed for program: \_\_\_\_\_

### Seismosaurus: The Earth Shaker

Wednesday, May 24, 7:00 p.m.

Number of Members' tickets at \$8: \_\_\_\_\_

Number of additional tickets at \$12: \_\_\_\_\_

Total amount enclosed for program: \_\_\_\_\_

### The Jews of Yemen. Tuesday, May 30, 7:00 p.m.

Number of Members' tickets at \$7: \_\_\_\_\_

Number of additional tickets at \$10: \_\_\_\_\_

Total amount enclosed for program: \_\_\_\_\_

### Dinosaurs Today. Thursday, June 1, 7:00 p.m.

Number of Members' tickets at \$6: \_\_\_\_\_

Number of additional tickets at \$9: \_\_\_\_\_

Total amount enclosed for program: \_\_\_\_\_

### Dino Rock. Saturday, June 3. Please indicate a first and second choice.

\_\_\_\_\_ 11:30 a.m. \_\_\_\_\_ 1:30 p.m.

Number of Members' tickets at \$6: \_\_\_\_\_

Number of additional tickets at \$9: \_\_\_\_\_

Total amount enclosed for program: \_\_\_\_\_

### Spanish Dance. Thursday, June 8, 8:00 p.m.

Number of Members' tickets at \$15: \_\_\_\_\_

Number of additional tickets at \$20: \_\_\_\_\_

Total amount enclosed for program: \_\_\_\_\_

### Pueblo Myths (for adults). Friday, June 16, 7:00 p.m.

Number of Members' tickets at \$8: \_\_\_\_\_

Number of additional tickets at \$12: \_\_\_\_\_

Total amount enclosed for program: \_\_\_\_\_

### Prison Tattoos. Tuesday, June 20, 7:00 p.m.

Number of Members' tickets at \$8: \_\_\_\_\_

Number of additional tickets at \$12: \_\_\_\_\_

Total amount enclosed for program: \_\_\_\_\_

### Seeing New York. Tuesday, June 27, 7:00 p.m.

Number of Members' tickets at \$5: \_\_\_\_\_

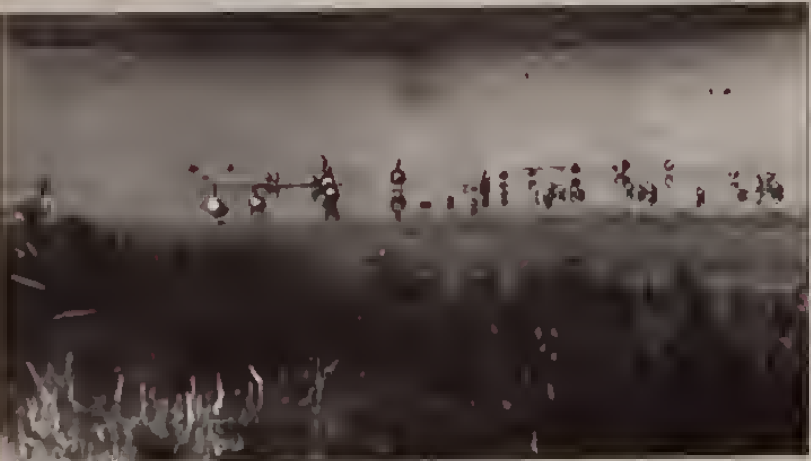
Number of additional tickets at \$8: \_\_\_\_\_

Total amount enclosed for program: \_\_\_\_\_

**NOTE: Orders received less than ten days before show dates will be held for pick-up at the door on the day of the program if tickets are still available. If an event is sold out, you will be advised in writing or by phone and your check will be returned.**



Evening and Afternoon Lecture Series



Birds of the Wetlands

The Double-Edged Helix: Implications of the DNA Mystique

Dorothy Nelkin will describe the revival of genetic essentialism, drawing examples from hundreds of stories, reports, metaphors, and images collected for her book *The DNA Mystique: The Gene as a Cultural Icon*, which was co-written with historian Susan Lindee. Nelkin will show how ideas from science are used to serve social ideologies and institutional agendas, and she'll examine whether genetic research portends a new eugenics. **Tuesday, May 2, 7:00-8:30 p.m. \$11 for Members, \$12 for non-Members.**

Wonders of New York Fossils

This two-part series is presented by Sidney Horenstein, coordinator of environmental public programs.  
**May 2: Metro Fossils.** The Greater New York area has yielded some fascinating fossils. This lecture examines the Museum's "expeditions" and other efforts that unearthed local fossils.  
**May 9: Building Stone Fossils.** Manhattan has a treasure trove of naturalized fossils entombed in the gleaming lobbies of office buildings, the facades of high-rise towers, table tops, and restroom partitions. This lecture explores where to find them and how to interpret them. **7:00-8:30 p.m. \$18 for Members, \$20 for non-Members (\$12 for one lecture).**

Spider Webs

**May 3: The Evolution of Spider Webs.** William A. Shear, Biology Department, Hampden-Sydney College.  
**May 10: How Sticky Are Spider Webs and Why?** Brent Opell, Department of Biology, Virginia Technical University. **7:00-8:30 p.m. \$18 for Members, \$20 for non-Members (\$12 for one lecture).**

The Day Before America

In his newly published book *The Day Before America: Changing the Nature of a*

**Continent** William H. MacLeish contends that many Americans have no sense of how their landscapes have been formed and transformed over time. At this lecture he'll place these transformations in full context, from their beginnings to their probable future.  
The author of *Oil and Water: The Struggle for George Band and The Gulf Stream*, which was adapted for the PBS program *Nova*, MacLeish is a contributing editor of *ECO* and former editor of *Oceanus*. **Monday, May 8, 7:00-8:30 p.m. \$11 for Members, \$12 for non-Members.**

Workshops, Field Trips, and Walking Tours

Spring Flowers and Trees in Central Park

A two-hour morning walk in Central Park observes botanical signs of spring. Participants will explore Strawberry Fields, Hemishead, and the Shakespeare Garden and learn about plant identification and ecology from William Schiller, lecturer in botany in the Education Department.  
Please note: Walks will start from the park entrance at 72nd Street and Central Park West. Please register at least one week in advance. **Saturday, May 6, 9:00-11:00 a.m. SOLD OUT.**

Spring Bird Walks in Central Park

Observe the spring arrival of birds in Central Park and learn how to identify birds by field marks, habitat, behavior, and song. Pre-registration is required. **Tuesdays, May 2-30, 7:00-9:00 a.m., and Thursdays, May 4-June 1, 9:00-11:00 a.m. \$7 per walk (no discount for Members). Limited to 25 people.**

Field Trip to Sterling Hill Mine

Visit the last operating zinc mine in New Jersey, tour underground tunnels, and

learn about mining history and technology. Joseph J. Peters, senior scientific assistant in the Department of Mineral Sciences, leads this exciting tour. Bring your own box lunch. **Saturday, June 3, 9:30 a.m.-5:00 p.m. \$50 (no discount for Members). Limited to 36 people.**

Bird Identification for the Beginner

This workshop is designed to help the novice birder learn techniques of bird identification, including charting, recording, and observation. View mounted Museum specimens that represent the variety of birds in the New York area and move to Central Park for practical experience. This trip is led by Joseph DiCostanzo, research assistant on the Great Gull Island Project and past president of the Linnaean Society. **Saturday, May 13, 10:30 a.m.-3:00 p.m. \$40 (includes a sandwich lunch; no discount for Members). Limited to 25 people.**

Birds of the Wetlands: A Day Trip to Jamaica Bay

An all-day bus excursion to the marshlands and estuaries of Jamaica Bay Wildlife Refuge observes the spring migration of marsh and water birds, including herons and egrets. Naturalist Stephen C. Quinn leads the trip. Bring your own box lunch. **Saturday, May 6, 8:00 a.m.-5:00 p.m. Limited to 36 people. \$50 (no discount for Members).**

Geology Boat Cruises

A Geology Cruise Around Manhattan

A three-hour boat trip around Manhattan surveys regional geology. Sidney S. Horenstein, coordinator of the Museum's environmental programs, will discuss the origins of the Palisades, plant and animal environments, and local history. Bring your own box supper. **Tuesday, June 6, 6:00-9:00 p.m. \$22 for Members, \$25 for non-Members.**

The Nooks and Crannies of Western New York Harbor

A three-hour boat tour travels south through the bay for unusual views of the Statue of Liberty and Ellis Island. Sidney S. Horenstein, coordinator of the Museum's environmental programs, will discuss the formation of the bays and other New York waterways. Bring your own box supper. **Tuesday, June 13, 6:00-9:00 p.m. \$22 for Members, \$25 for non-Members.**

Exploring the Brooklyn Shore Line

A five-hour boat trip cruises along the Brooklyn shore to view forts dating back to the War of 1812. Passengers will sail under the Verrazano Narrows Bridge, pass Gravesend Bay, and travel around Coney Island toward the Rockaway outlet. Sidney S. Horenstein, coordinator of the Museum's environmental public programs, will comment on local history and ecology. Bring your own box lunch; snacks are available on board. **Saturday, June 10, 11:00 a.m.-4:00 p.m. \$32 for Members, \$35 for non-Members.**

Cape Cod Whale Watch Weekend

This nature weekend offers insights into Cape Cod's natural and cultural history with three four-hour whale watch cruises by private charter, a guided birding walk along the

trails of Wellfleet Bay Wildlife Sanctuary, and a stop at Mystic Aquarium. Fee includes transportation, two nights' lodging, meals, boat cruises, lectures, and admission to the bird sanctuary and aquarium. **Friday-Sunday, May 19-21, \$400 (double occupancy; no discount for Members). Limited to 45 people. Call (212) 769-5310 for itinerary.**

Fall Cape May Birding Weekend

Join Museum naturalists for a weekend of birding at Cape May, New Jersey, one of the world's bird-watching hot spots. The trip will include naturalist-led walks, informal lectures, a stop at Brigantine National Wildlife Refuge, and two boat trips. Fee includes accommodations, food, and transportation. **Friday-Sunday, October 20-22, \$350 (double occupancy). Limited to 45 people. Call (212) 769-5310 for itinerary.**



Cape Cod Whale Watch Weekend

1995 REGISTRATION COUPON

Please make check payable to the American Museum of Natural History and mail with a **self-addressed, stamped envelope** to: Lecture Series, Education Dept., American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192.  
Please note that credit-card payment is now available and that registration will be delayed if daytime phone number or stamped, self-addressed envelope is not included. For further information call (212) 769-5310.

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Daytime telephone: \_\_\_\_\_

Membership category: \_\_\_\_\_

Course	Day	Hour
_____ No. tickets	_____ Price (each)	_____ Total

Course	Day	Hour
_____ No. tickets	_____ Price (each)	_____ Total

Total amount enclosed: \_\_\_\_\_

Method of payment: ☐ Check ☐ MC ☐ Visa

Account no.: \_\_\_\_\_

Expiration date: \_\_\_\_\_  
Month/Year



## The Jews of Yemen

**Tuesday, May 30  
7:00 p.m.  
Main Auditorium  
\$7 for Members,  
\$10 for non-Members**

For centuries the Jews of Yemen enjoyed freedom and prosperity. But with the suicide of the last Jewish king — according to legend he rode his horse into the sea — and the increasing power of Islam, Yemenite Jews were stripped

of their land, forbidden to farm, and confined within small areas of villages and of the capital of Sanaa. In the crowded ghetto of Sanaa, Yemenite Jews created a style of architecture known nowhere else in the Middle East. They did the only work allowed them — that of artisans — becoming skilled silversmiths, coppersmiths, weavers, woodworkers, and masons.

Between 1948 and 1950 large numbers of Yemenite Jews emigrated to Israel. Little was known about those who remained behind. In *Jews of Yemen: A Vanish-*

*ing Culture*, filmmaker Johanna Spector takes the viewer to Yemen and the few Jews remaining in Haidan, in north Yemen; however, all customs and ceremonies are filmed in modern Israel where Yemenite Jews continue to practice their old traditions.

The film includes footage of traditional Yemenite celebrations, rituals, dances, and music. Spector's camera enters the homes of several Yemenite families as they celebrate the Passover Seder in ways that are unique to Yemenite Jews but differ from region to region in Yemen.



**Yemenites praying before departure to Israel**

The *Jews of Yemen* premiered at the Museum in 1986. Filmmaker Johanna Spector, who is an authority on Yemenite music, will introduce the 78-minute film and answer questions after its

screening. This program is two hours long and the fourth in a series of Spector's ethnographic films.

Use the May Members' programs coupon on page 3 to register.

## Seismosaurus: The Earth Shaker

**Wednesday, May 24  
7:00 p.m.  
Kaufmann Theater  
\$8 for Members,  
\$12 for non-Members**

The newest and largest dinosaur to be added to the ranks of the Mesozoic giants is *Seismosaurus hallorum* from the Morrison Formation (Upper Jurassic) of New Mexico. Paleontologist David Gillette will talk with Members about this prehistoric behemoth, which is the longest dinosaur ever discovered (an estimated 150 feet) and per-

haps the largest, too — it's thought to have weighed 100 tons, or the weight of 20 average elephants.

*Seismosaurus* represents the pinnacle of success of the massive sauropods, which reached their greatest diversity in the Jurassic and then suffered near-extinction at the Jurassic-Cretaceous boundary, the Sauropod Crisis. Its excavation involved the use of high-tech instruments to look for the bones underground. More than 240 stomach stones (gastroliths) were excavated with the skeleton, indicating that sauropods had both crop and gizzard as specialized chambers of the di-

gestive tract.

Gillette became state paleontologist of Utah in 1988 after serving for five years as the curator of paleontology at Albuquerque's New Mexico Museum of Natural History, where he initiated the *Seismosaurus* Project. He is also the chief scientist for the Southwest Paleontology Foundation, Inc., which sponsored the *Seismosaurus* Project, and consultant scientist at Los Alamos National Laboratory, where much of his research in technological applications was conducted.

Use the May Members' programs coupon on page 3 to register.

## Members' Birthday Parties at the Museum

A new theme party offers young Members a chance to celebrate their birthdays within the arachnid world. The *Spiders!* parties feature a guided tour of the Gallery 3 exhibition and related games and craft activities — a unique way for young Members and their friends to celebrate.

Other theme parties for Members between the ages of 5 and 10 focus on fossil mammals, dinosaurs, African mammals, reptiles and amphibians, ocean dwellers, Native Americans, and minerals and gems. In addition to *Spiders!*, another new theme party offers party-goers a look at one of the Naturemax

films.

The group should be no fewer than 10 and no more than 20. The fee is \$300 plus \$15 per child and covers all materials and the services of a Museum party coordinator. The coordinator will help you plan a party that suits your child's tastes and will handle everything from candles to party favors. All you need to do is bring the cake and help escort the guests. The parties, which are two hours long, are available only to Members at the Contributor (\$100) and higher levels.

For more information about the children's birthday parties call (212) 769-5542.

## Dinosaur Days Are Here Again

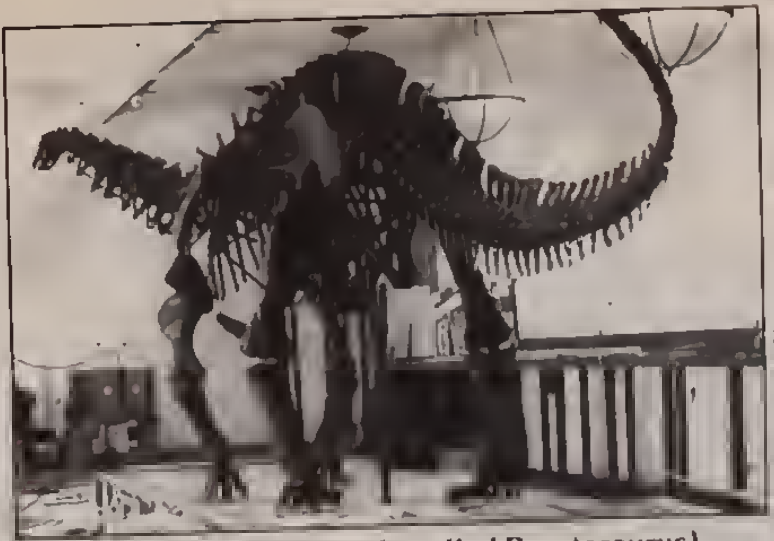
It's been a mighty long time since *Tyrannosaurus rex* has had any visitors. The Museum's dinosaur halls have been closed since 1991 so that an extensive renovation and restoration program could be undertaken. Since then *T. rex* has been completely disassembled, cleaned, conserved, and repositioned — as have the other famous dinosaurs. They'll be ready for company next month, when Members can celebrate their return.

### Members' Preview

On Thursday, June 1, from 4:00 to 9:00 p.m. Participating and Higher Members can attend a preview of the new halls. Volunteer Highlights Tour guides will be on hand to talk about the exhibits and answer questions. No tickets are necessary for this free preview; your valid membership card is your ticket of admission.

### Dinosaurs Today

On the evening of the preview paleontologist Mark Norell will talk about the design of the two new dinosaur halls and the ways in which they reflect the latest advances in scientific understanding of dinosaur life. Norell, who is a curator in the Department of Vertebrate



**Apatosaurus (formerly called Brontosaurus)**

Paleontology, was instrumental in the preparation of the new halls, and he'll explain how their design traces evolutionary history and the interrelationships among vertebrates.

*Dinosaurs Today* will take place at 7:00 p.m. in the Kaufmann Theater. Tickets are \$6 for Members and \$9 for non-Members. Use the coupon on page 3 to register.

### Dinoday

Young Members can welcome back the dinosaurs on Saturday, June 3, at *Dinoday*. Musician Chris Rowland will present *Dino Rock*, a fast-paced and fun-filled program of song and dance. Before or after *Dino Rock*

kids can participate in a crafts workshop, at which they'll make a dinosaur memento to take home, and they can play Dinosaur Bingo.

Tickets for *Dinoday* are \$15 and available only to Participating and Higher Members ages 4 and older. *Dino Rock* will take place in the Kaufmann Theater at 11:30 a.m. and 1:30 p.m. (Members wishing to register for *Dino Rock* only can do so; tickets are \$6 each.) The crafts workshop and Dinosaur Bingo will be held at 10:30 a.m. and 12:30 and 2:30 p.m. Use the coupon on this page to register for *Dinoday* and the coupon on page 3 to register for *Dino Rock* only.

The Membership Office would like to thank the following young Members who celebrated their birthdays here recently: Laura Aiges, Molly O'Steen, Todd Lavine, Tommy Mathew, Tommy Langan, Alyssa Schaffer, Benjamin Kraus, and Stephanie Matone.

**Tours, Day Trips, and Workshops.** Use this coupon to register for *Native American Bead Weaving* (indicate a first and second choice of times), the *Walking Tour of a Manhattan Mosque*, *Dinoday*, the children's program *Pueblo Myths*, and the *Members' Cruise on Long Island Sound*.

Name(s) of program(s): \_\_\_\_\_

\_\_\_\_\_

Number of tickets and price (please indicate which program if more than one): \_\_\_\_\_

Total amount enclosed: \_\_\_\_\_

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Daytime telephone: \_\_\_\_\_

Membership category: \_\_\_\_\_

Please make check payable to the American Museum of Natural History and mail with a **self-addressed, stamped envelope** to: *Tours and Workshops*, Membership Office, American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192.



## Unity through Diversity

### World Myths and Religions

The Department of Education's year-long series *Unity Through Diversity* contrasts the cultures of the New York City area. In recognition of the United Nations' Year of Tolerance, the series *World Myths and Religions* examines belief systems of the world through music, dance, and films.

For further information about these programs, call the Education Department at (212) 769-5315, Monday through Friday, 9:00 a.m. to 5:00 p.m. The programs will take place in the Charles A. Dana Education Wing, on the first and second floors.

#### Russian Village Folk Celebration Saturday, May 6

Arts International, Institute

of International Education, and producer David Eden present an ensemble of 27 dancers, singers, and musicians in a rich and spirited performance of Russian folk traditions representing three different regions and spanning three generations.

Russian religion is marked by a syncretization of Christianity with worship of the ancestors, the sun, and the earth. These elements of religious folk culture are reflected in the performances. The Grandmothers of Chernovo sing soulful courtship and wedding songs from the northern Arkhangelsk region. The Old Believers, who were exiled to Siberia in the seventeenth century for refusing to accept Russian Orthodoxy's reforms, will perform songs, fairy tales, and legends. A group from the Voronezh

region will depict the living traditions of their ancestors through mime and dance.

The performance, which will be accompanied by English narration, will take place at 6:30 p.m. in the Hall of Ocean Life. It will be followed by a discussion, *Russian Religious and Community Traditions*, at 8:00 p.m. in the Kaufmann Theater. Panelists include Elizabeth Valkenier, resident scholar at the Harriman Institute at Columbia University; Elvira Kunina, director of the All-Russian Folk Arts Division of the Ministry of Culture; and Irina Asadchik, director of the Folk Center of the Arkhangelsk Region. They will discuss regional cultural and spiritual beliefs, and their explanations will feature short demonstrations by the performing artists.



The Old Believers perform on May 6

Support for Education Department programs is made possible by gifts and grants from Chase Manhattan Bank, Chemical Bank, Citicorp/Citibank, Henry Nias Foundation, Inc., Jack and Susan Rudin Educational and Scholarship Fund, the Lila Acheson Wallace Fund at the New York

Community Trust, Samuel and May Rudin Foundation, the Aaron Diamond Foundation, the City of New York, the Office of the Borough President of Manhattan, the Vidda Foundation, William Randolph Hearst Foundation, and the family of Frederick H. Leonhardt

### From the Volunteer Department

#### Volunteers Needed

*Expedition: Treasures from 125 Years of Discovery* is well under way and is a great success for both the Expedition volunteers and

the visiting public. There are still spaces left for volunteers. Call Donna Sethi at (212) 769-5523 for additional information.

#### A Global Expedition: World Tour 3

On Saturday, May 13, the Volunteer Office's third annual *World Tour* will focus on the Museum's exciting heritage of world exploration.

Over the past 125 years this institution has sent representatives to every corner of the globe, and the *World Tour* will retrace the steps of some of these explorers and scientists to look at exhibits that reflect the achievements of these expeditions.

The free tour begins at 6:30 p.m. in the second-floor Roosevelt Rotunda. Registration is required, and the tour is limited to 35 people. Call (212) 769-5566 to register.

### Discovery Room Parent-Child Workshop

#### Insects

Saturday, May 6  
10:00 a.m.-2:00 p.m.  
\$35 per couple

Discovery Room exhibitor Ian Stark (age 12) and his father Julian, a Museum entomologist, will lead an insect collecting trip to Central Park. The morning field trip will be followed by a session in the Museum that will demonstrate how to prepare insects for a collection.

Ian is a junior naturalist at the Discovery Room, the Museum's hands-on room for children and their parents. Participants in this workshop

will meet at the Roosevelt statue on the Central Park West steps and should bring a picnic lunch to eat in the park.

The workshop is limited to 10 couples: one child (ages 7 and older) plus one adult. Pre-registration is required; fill out a registration form in the Discovery Room or send the coupon on page 4 to the Education Department. Call (212) 769-5310 with any questions.

### Expedition Cruise to Iceland, Greenland, and Hudson Bay

This summer, from August 9 to 25, a team of lecturers from the American Museum will lead a voyage of discovery from Iceland, one of the youngest and most geologically active places in the world, to the geologically ancient island of Greenland, and to Hudson Bay, one of the most important areas in the history of exploration. The expedition ship *Allo Torasova* will follow routes once sailed by Vikings and Arctic explorers to take participants to ancient Norse and Thule villages built on flowering tundra amid majestic mountain landscapes.

During the summer months the frigid seas of northern Canada and Greenland explode with life as resident and migratory wildlife enjoy a brief respite. Polar bears emerge from their dens, seals and walrus lounge on ice floes, caribou and musk oxen graze on fresh summer grasses, and a host of whales, seabirds, and other wildlife gorge themselves in prepara-



tion for the long winter.

The region's history of human habitation includes that of Inuit peoples who migrated across the Ice Age land bridge from Asia and adapted themselves to life in the frigid north, as well as that of the Vikings, who set out in open boats from Scandinavia, and later explorers who risked everything in search of the Northwest Passage.

During the course of the

voyage a complete program of lectures and videos will cover such topics as polar exploration, arctic flora and fauna, and the art forms of the Hudson Bay region.

Price (per person, double occupancy; airfare additional): \$6,990-\$7,990. For further information, call Discovery Cruises/Tours at (800) 462-8687, or in New York State at (212) 769-5700, Monday through Friday, from 9:00 a.m. until 5:00 p.m.

SPRING IS HERE

## Celebrate

Mother's Day  
Sunday, May 14th

Holiday Buffet  
11am - 4pm

Adults \$16.95 Children under 10, \$8.95  
Reservations suggested

Call the Garden Cafe at 212-769-5865  
Located on the Lower Level

GARDEN CAFE  
AMERICAN MUSEUM OF NATURAL HISTORY



Naturemax



Africa: The Serengeti

The IMAX film *Africa: The Serengeti* explores the relationships between predator and prey by following the great migration of wildebeests, zebras, and other animals. Showtimes are 10:30 and 11:30 a.m. and 1:30 and 3:30 p.m. daily. *Yellowstone* takes viewers on a journey to the national park to discover its history, geology, and wildlife. Showtimes are 12:30, 2:30, and 4:30 p.m.

On Friday and Saturday at 6:00 and 7:30 p.m., *Africa: The Serengeti* is shown on a double bill with *Yellowstone*. Schedules and prices are subject to change without notice. Call (212) 769-5650 for further information.

**Admission** (Participating and Higher Members)  
Adults: \$4.75 single feature; \$6 double feature  
Children: \$2.25 single feature; \$3.25 double feature

Spiders!

The facts of spider life are as fantastic as fiction. The current Gallery 3 exhibition *Spiders!* explores the incredible diversity of spiders, which are found everywhere, in almost all habitats. Very few spiders are deadly or dangerous; most spiders help humans because they eat insects and maintain ecosystem balance. The exhibition is on display through June 4.



Black widow. ANNH 333603

Museum Notes

**Hours**  
Exhibition Halls  
Mon.-Thurs. & Sun. ....10:00 a.m.-5:45 p.m.  
Fri. & Sat. ....10:00 a.m.-8:45 p.m.  
The Museum Shop  
Mon.-Thurs. & Sun. ....10:00 a.m.-5:45 p.m.  
Fri. & Sat. ....10:00 a.m.-7:45 p.m.  
The Junior Shop  
Mon.-Fri. ....10:00 a.m.-4:45 p.m.  
Sat. & Sun. ....10:00 a.m.-5:45 p.m.  
The Museum Library  
Tues.-Fri. ....11:00 a.m.-4:00 p.m.  
The Natural Science Center  
For children of all ages and their families.  
Closed on Mondays and holidays.  
Tues.-Fri. ....2:00-4:30 p.m.  
Sat. & Sun. ....1:00-4:30 p.m.

The Discovery Room  
Passes are distributed at the first-floor information desk beginning at 11:45 a.m. Ages 5-15. Children must be accompanied by an adult. Closed on holidays and weekdays.  
Sat. & Sun. ....Noon-4:30 p.m.

**Museum Dining**  
Diner Saurus Fast Service Eatery  
Daily ....11:00 a.m.-4:45 p.m.  
Garden Cafe  
Reservations: (212) 769-5865  
Lunch: Mon.-Fri. ....11:30 a.m.-3:30 p.m.  
Dinner: Fri. & Sat. ....5:00-7:30 p.m.  
Brunch: Sat. & Sun. ....11:00 a.m.-4:00 p.m.  
Whale's Lair  
Fri. ....3:00-8:00 p.m.

Sat. ....Noon-8:00 p.m.  
Sun. & most holidays ....Noon-5:00 p.m.  
Snack Carts  
Sat. & Sun. ....11:00 a.m.-4:00 p.m.

**Entrances**  
During Museum hours visitors can enter the building through the 77th Street entrance, the parking lot entrance (81st Street), or the Roosevelt Memorial Hall entrance (75th Street and Central Park West). Visitors attending programs after hours can enter the building at 79th Street and Central Park West.

Happenings at the Hayden

Lectures

Frontiers in Astronomy and Astrophysics

On Monday, May 8, at 7:30 p.m., Alex Filippenko, professor of astronomy at the University of California at Berkeley, will present an illustrated talk, "Exploding Stars — Celestial Fireworks." This lecture is part of the *Frontiers in Astronomy and Astrophysics* series. Tickets are \$6 for Participating and Higher Members and \$8 for non-Members. For information about ticket availability and upcoming lectures, call (212) 769-5900.

Sky Show

The Ten Most-Asked Questions about the Universe

What is a black hole? Is there life elsewhere in the universe? How will the universe end? This Sky Show answers these and other frequently asked questions about space.

**Showtimes:**  
Mon.-Fri. ....1:30 and 3:30 p.m.  
Sat. ....11:00 a.m. (except for May 6 and June 3), 1:00, 2:00, 3:00, 4:00, and 5:00 p.m.  
Sun. ....1:00, 2:00, 3:00, 4:00, and 5:00 p.m.

**Admission** (Participating and Higher Members)  
Adults: \$4  
Children (2-12): \$2

Call (212) 769-5100 for additional information and non-Members' prices. Please note that prices are subject to change without prior notice.

Exhibition

The Universe Revealed: Recent Images from the Hubble Space Telescope

This exhibition features photographs of recent discoveries made by the Hubble Space Telescope, including the M87 galaxy (which proves the existence of black holes) and images of the Shoemaker-Levy 9 comet strikes on Jupiter. A 1:15 scale model of the Space Shuttle Orbiter deploying the Hubble is on display, along with a scale model of the Optical Telescope Assembly of the Hubble Space Telescope and a video of the repair mission of December 1993.

Children's Shows

*Wonderful Sky* is a special Sky Show for preschoolers. Children sing along with images of their favorite Sesame Street Muppets as they learn about rainbows, the phases of the moon, sunsets, and stars. Sat., May 6, at 10:30 a.m., and Sat., June 3, at 10:30 and 11:45 a.m. Admission for Participating and Higher Members is \$4 for adults and \$2 for children. Members can purchase up to four tickets at the Members' price.

Shows usually sell out in advance; reservations, by mail only, are necessary. Orders must be received two weeks prior to show date. Make your check payable to the Hayden Planetarium (attn: Wonderful Sky, Central Park West at 81st Street, New York, NY 10024-5192); indicate membership category and a first and second choice of showtimes. Be sure to include a self-addressed, stamped envelope and your daytime telephone number. For additional information call (212) 769-5900.

*Robots in Space* features Lucasfilm's R2D2 and C-3PO and has been created especially for children ages 7 to 12. Together with a live host, these famous space robots take children on a tour of the universe. See how satellites and probes — the real space robots — help us learn about worlds near and far. Journey from the earth to other planets and distant black holes. Sat., May 6, at 11:45 a.m. Admission for Participating and Higher Members is \$4 for adults and \$2 for children. For information, call (212) 769-5900.

Laser Light Shows

Journey into another dimension where laser visuals and rock music combine to create a dazzling 3-D experience of sight and sound. Shows are presented on Fridays and Saturdays at 7:00, 8:30, and 10:00 p.m. For prices and show schedule, telephone (212) 769-5100.

It's always a good idea to call before visiting the Planetarium, since prices, programs, and showtimes are subject to change without notice. For general Planetarium information, call (212) 769-5100.



# Sun May 1995 American Museum of Natural History

Mon

Tue

Wed

Thu

Fri

Sat

**27:00 p.m.** The Double-Edged Helix: Implications of the DNA Mystique. Page 4.

**7:00 p.m.** Wonders of New York Fossils. Page 4.

**37:00 p.m.** Spider Webs. Page 4.  
**7:30 p.m.** Amateur Astronomers Association. Speaker, Sune Englebrektson. Pace University. "Cosmic Intruders: Asteroids, Comets, and Meteoric Fragments." Kaufmann Theater. Free.

**47:00 p.m.** Collecting Fossils in the Sands of Mongolia: Following in the Footsteps of Roy Chapman Andrews. Members' evening program. Kaufmann Theater. \$6 for Members, \$9 for non-Members. Page 2.

**610:00 a.m.-2:00 p.m.** Insects: A Discovery Room Parent-Child Workshop. Page 6.  
**6:30 p.m.** Russian Village Folk Celebration. Hall of Ocean Life. Free. Page 6.  
**8:00 p.m.** Russian Religious and Community Traditions. A post-performance discussion. Kaufmann Theater. Free. Page 6.

Last chance to see Images of Power in Gallery 77. Page 2.

**87:00 p.m.** The Day Before America. Page 4.

**7:30 p.m.** Frontiers in Astronomy and Astrophysics. Speaker, Alex Filippenko, professor of astronomy, University of California, Berkeley. "Exploding Stars — Celestial Fireworks." Sky Theater. \$6 for Members, \$8 for non-Members. Page 7.

**97:30 p.m.** Linnaean Society. Speaker, Peter Post. "Adventures in Arctic Siberia." Linder Theater. Free.

**105:30 p.m.** NY Mineralogical Club. Room 319. Free.

**117:00 p.m.** Sexual Legacies: How Ancient Gender Differences Influence Our Lives in the Office and the Home. Main Auditorium. \$7 for Members, \$10 for non-Members. Page 2.

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**1311:00 a.m.** NY Map Society. Room 319. Free.

**6:30 p.m.** World Tour. Guided Museum tour. Registration required. Page 6.

**7Noon-4:00 p.m.** Members' Cruise on Long Island Sound. \$55 for Members, \$65 for non-Members. Tickets required. Page 2.

**7:30 p.m.** Frontiers in Astronomy and Astrophysics. Speaker, Alex Filippenko, professor of astronomy, University of California, Berkeley. "Exploding Stars — Celestial Fireworks." Sky Theater. \$6 for Members, \$8 for non-Members. Page 7.

**14** Mother's Day.

**2:00 p.m.** NY Shell Club. Room 319. Free.

15

16

**177:00 p.m.** NY Entomological Society. Room 319. Free.

**187:00-8:30 p.m.** Dinosaurs at the Museum, part 1. Eugene Gaffney, curator in the Department of Vertebrate Paleontology, discusses the evolutionary history of ornithischian dinosaurs. For further information call the Department of Education at (212) 769-5310.



**2011:00 a.m.-12:30 p.m.** Members' Walking Tour of a Manhattan Mosque. \$20, and open only to Participating and Higher Members. Tickets required. Page 2.

Slabsides: The First Hundred Years. See item at lower left.



**2111:00 a.m. and 1:30 p.m.** Native American Bead Weaving. Members' adult-child workshop. \$26, and open only to Participating and Higher Members. Tickets required. Page 2.

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**237:30 p.m.** Linnaean Society. Speaker: Donna Lakin Tracy, Hudson Valley Raptor Center. "Birds of Prey of the Northeast: An Intimate View." Linder Theater. Free.

**247:00 p.m.** Seismosaurus: The Earth Shaker. Members' evening program. Kaufmann Theater. \$8 for Members, \$12 for non-Members. Page 5.

**257:00 p.m.** NY Microscopical Society. Room 319. Free.

26

27

**2:00 p.m.** NY Paleontological Society. Room 319. Free.

28

**29** Memorial Day. The Museum is open.

**307:00-8:30 p.m.** Dinosaurs at the Museum, part 2. Mark Norell, associate curator in the Department of Vertebrate Paleontology, discusses the collection of fossils on display in the new Hall of Sauroschian Dinosaurs. For further information call the Department of Education at (212) 769-5310.

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## Slabsides Day

Join the friends of the John Burroughs Association on Saturday, May 20, for the centennial celebration "Slabsides: The First Hundred Years." This special event, which will begin at noon, is presented in honor of the

cabin's 100th anniversary.

Slabsides is located in West Park, New York, on the Hudson River, 80 miles north of New York City and 10 miles south of Kingston. For more information call (212) 769-5169.



## New Parking Policy

As of July 1, parking will no longer be complimentary for people attending evening programs. Standard rates will apply. Rates for cars entering between 7:00 a.m. and 5:00 p.m. start at \$5 for up to a half-hour and advance by stages to a closing-time maximum of \$17. Cars entering between 5:00 p.m. and 11:30 p.m. are charged a minimum of \$5 and a maximum of \$7 on Sunday through Thursday and a maximum of \$12 on Friday

and Saturday. Buses are charged \$11 and are not admitted on weekends. For further information about parking rates, call (212) 769-5121. The parking lot is open every day from 7:00 a.m. till 11:30 p.m. The parking lot has a capacity of 100 vehicles and is open to the public on a first-come, first-served basis. Call (212) 769-5606 for information about alternative parking.



# POTUNDA

Vol. 20, No. 6 June 1995

For Participating and Higher Members of the American Museum of Natural History



*The Apatosaurus, originally called Brontosaurus, was the first large dinosaur in the world to be put on public display when it was mounted in 1905. Paleontology has come a long way in the last 90 years, and the new exhibit reflects improved understanding of dinosaur anatomy with a new skull and a tail that's 20 feet longer.*

Ben Blomfield/Craig Chant/Doris Pinner © AMNH

## Two New Dinosaur Halls Open on June 2

The second phase of the American Museum's major restoration project will take place with the opening of two new dinosaur halls — the Hall of Saurischian Dinosaurs and the Hall of Ornithischian Dinosaurs. The halls have been closed since 1991, when the Museum began their renovation and restoration. (See page 2 for details about a Members' preview and other special events.)

The Museum is widely acknowledged to possess the largest and most scientifically important collection of dinosaur fossils in the world and has been a leader in the study of these creatures for nearly 100 years. Dinosaurs have been among the Museum's most popular exhibitions since they were first put on display at the turn of the century. The new halls present the most comprehensive exhibition of real fossil dinosaur material anywhere and the latest scientific information regarding these fascinating animals.

Approximately 100 specimens are featured in the new dinosaur halls, representing roughly 5 percent of the Museum's collection of 2,000 fossil dinosaur specimens. An estimated 85

percent of the specimens in the new halls are real (rather than casts). Interactive computer stations combine film, animation, illustrations, and video interviews with the Museum's scientists to examine both the evolutionary relationships of dinosaurs and their habitats in different time periods.

Some of the Museum's most famous dinosaurs have been remounted to reflect changes in the scientific understanding of what these animals were like. The *Tyrannosaurus rex* was completely disassembled, cleaned, conserved, and repositioned. Instead of standing upright, it's now positioned in a stalking posture, with its head looming just above that of the viewer. *Apatosaurus* (previously referred to as *Brontosaurus*) has a new skull, additional neck bones, and a tail that has been lengthened by over 20 feet. Other highlights include a dinosaur "mummy" that shows detailed impressions of skin and other soft tissues of a duck-billed dinosaur; an extremely rare fossil skeleton showing skin impressions of a horned dinosaur; one of the world's few *Velociraptor* specimens; and numerous dinosaur fossils that have never before

been on public view.

These halls represent an innovative examination of the history of life. Most museums organize their fossil exhibits in a chronological progression, from oldest to youngest; these are arranged in the form of a giant family tree. This approach explores evolutionary history and interrelationships among vertebrates and presents visitors with fresh insights and many surprises.

The opening of the dinosaur halls represents the second phase of the Museum's spectacular restructuring of its fossil halls. The entire renovation project, which will be completed in 1996, will consist of six new halls that tell the story of vertebrate evolution with the world's largest and most scientifically important array of fossils.

Production of exhibition elements for the fossil halls began in 1989 in the Museum's workshops and other facilities. The Lila Acheson Wallace Wing of Mammals and Their Extinct Relatives opened last year; the dinosaur halls open this month; and an orientation center and primitive vertebrate hall will open next year.

As part of this ambitious project,

the Museum is restoring the fourth-floor halls to their original architectural grandeur. The new design opens exhibition spaces and reveals architectural details that were hidden for decades and gives visitors an immediate sense of the Museum's current scientific research.

Major support for the fossil halls has come from the Trustees of the American Museum of Natural History and the City of New York. The Lila Acheson Wallace Wing of Mammals and Their Extinct Relatives, which opened in 1994, was named in recognition of the important support the Museum has received from the Lila Acheson Wallace/American Museum of Natural History Fund, which was established in 1980 at the New York Community Trust by the co-founder of the Reader's Digest Association, Inc. The Irma and Paul Milstein Hall of Advanced Mammals was named in recognition of the Milsteins' major gift. Exxon Corporation, the Kresge Foundation, and the Miriam and Ira D. Wallach Foundation have also provided generous support. The Miriam and Ira D. Wallach Orientation Center will open in 1996.



## Prison Tattoos

Tuesday, June 20

According to the Book of Genesis, God placed a mark on the world's first murderer before sending him into exile. The mark of Cain proclaimed its bearer as a criminal and social outcast, and for centuries prisoners and other criminals were forcibly tattooed with numbers and other marks that made them easy to identify, locate, label, and isolate.

Today the vast majority of men behind bars in the United States are tattooed.

most of them voluntarily. Chris Brady of the Idaho State Historical Society will discuss the distinctive style and symbolism of prison tattoos, which are significantly different in looks and meaning from other tattoos.

For instance, prison tattoos aren't colorful. The designs are all black, and the wearers tend not to add color to them when they have the opportunity. The single-needle technique, which features fine lines and shading, sets prison tattoos apart from outside work — although the style was imitated in the mid-1970s by outside tattoo artists.

Inmates are skilled at reading each other's tattoos, which can tell them who to be friends with and who to

stay away from or reveal the wearer's crime or the length of his sentence. (Only 5 percent of US convicts are female; tattooing is not a common prison activity among them.)

Like prisoners, gang members and enlisted men often sport tattoos. These three groups share certain characteristics: their senses of individual identity are taken away or lessened, and they are deprived of the usual forms of self-expression. Clothing, activities, possessions, and relationships are controlled by gang, prison, or military policy. What the individual puts on his skin is a form of non-verbal communication for all to see. Within the prison culture, inmates say that tattoos are a visual record of their lives that offer a sense of belonging and show that the recipient can handle pain.

Chris Brady is historic sites administrator at the Idaho State Historical Society, which is located at Old Idaho Penitentiary. This program is presented in conjunction with a permanent exhibition on tattooing at the historical society. Brady, whose training is in textiles and clothing history, is working on a traveling exhibition.

The program will take place at 7:00 p.m. in the Kaufmann Theater. Tickets are \$8 for Members and \$12 for non-Members. Use the June Members' programs coupon on page 3 to register.



An angel of mercy on the arm of a lifer

## Seeing New York: History Walks for Armchair and Footloose Travelers

Tuesday, June 27

Members can hear a fascinating account of New York's social history, architecture, and culture at the program *Seeing New York: History Walks for Armchair and Footloose Travelers*. Historian Hope Cooke believes that many of us live like exiles in our own surroundings; to remedy this, she'll take listeners off the beaten path to discover how social change has reworked New York's terrain.

The program will be based on Cooke's book, *Seeing New York*, which is available from Temple University Press. "As if taking us by the

hand and conducting us from street to street," remarked architectural writer Brendan Gill, "Cooke evokes the sights and smells and sounds of all those earlier New Yorks. . . . Wherever she leads us, we are happy to follow." The book will be available for purchase at the program, and Cooke will sign copies after the show.

The program will take place at 7:00 p.m. in the Kaufmann Theater. Tickets are \$5 for Members and \$8 for non-Members. Use the coupon on page 3 to register.

## Pueblo Myths

For adults  
Friday, June 16

For children, ages 7-12  
Saturday, June 17

Teresa Pijoan will tell tales of magic and faith, creation and regeneration when she comes to the Museum this month. She'll present two Members' programs, an evening show for adults and a morning program for children, in which she'll relate some of the enchanting myths of New Mexico's native Tewa people.

At the program for adults, Pijoan will perform the creation myth of Awonawilona with her face painted in two shades — half in black (representing Father Sky), and half in white (for Mother Earth). She'll also tell a Tewa story (from Taos and Picuris Pueblo), "Nah-chu-ru-chu Keeps Moon Woman," and a Spanish Pueblo tale called "El Angel del Alcalde," the humorous story of a young woman who marries an older man.

At the children's program, Pijoan will tell the Iroquois tale "The Flying Head"; a creation myth; "The Shortest Story Ever Told"; and "Ah-ha-a uu-Tah and the Cloud Eater." The program will include movement, exercise, and total group participation.

Children will learn to speak some Tewa words, use Indian Sign Language, greet in the traditional Pueblo way, and learn to be a "storyholder."

The adults' program will take place on Friday, June 16, at 7:00 p.m. in the Linder Theater. Tickets are \$8 for Members and \$12 for non-Members. Use the June Members' programs coupon on page 3 to register. The children's program will take place on Saturday, June 17, at 11:00 a.m. in the Edith C. Blum Lecture Room. Tickets are \$10 and available only by mail to Participating and Higher Members. Use the coupon on page 5 to order tickets, and please note that this program is for children only. Both programs are approximately one hour long.

## Celebrate the Return of the Dinosaurs

Be among the first to take a look at the new dinosaur halls at the Members' preview, and bring the kids to a festive Saturday of dinosaur-theme activities.

### Members' Preview of the New Dinosaur Halls

On Thursday, June 1, from 4:00 to 9:00 p.m. Participating and Higher Members can attend a preview of the new halls. Volunteer Highlights Tour guides will be on hand to talk about the exhibits and answer questions. No tickets are necessary for this free preview; your valid membership card is your ticket of admission.

### Dinosaurs Today

On the evening of the preview paleontologist Mark Norell will talk about the design of the two new dinosaur halls and the ways in which they reflect the latest advances in scientific understanding of dinosaur life. Norell, who is an associate curator in the Department of Vertebrate Paleontology, was instrumental in the preparation of the new halls, and he'll explain how their design traces evolutionary history and the interrelationships among vertebrates.

Norell's new book, *Discovering Dinosaurs at the*

*American Museum of Natural History*, will be available for purchase at the program. After the show, Norell will sign copies of the book, which was co-written with curator Eugene Gaffney and research associate Lowell Dingus.

*Dinosaurs Today* will take place at 7:00 p.m. in the Kaufmann Theater. Tickets are \$6 for Members and \$9 for non-Members. Call the Membership Office at (212) 769-5606 for information about ticket availability.

### Dinoday

Young Members can welcome back the dinosaurs on Saturday, June 3, at *Dinoday*. Musician Chris Rowland will present *Dino Rock*, a fast-paced and fun-filled program of song and dance. The latest theories and fossil facts are featured in a program that will appeal to both novices and die-hard dinosaur enthusiasts.

Before or after *Dino Rock* kids can participate in a crafts workshop, at which June Myles will help them make a dinosaur memento to take home. They can also play *Dinosaur Bingo* in the Linder Theater.

Tickets for *Dinoday* are \$15 and available only to Participating and Higher Members ages 4 and older. *Dino Rock* will take place in the Kaufmann Theater at 11:30 a.m. and 1:30 p.m. (Members wishing to register for *Dino Rock* only can do so; tickets are \$6 each.) *Dinosaur Bingo* and the crafts workshop will take place at 10:30 a.m. and 12:30 and 2:30 p.m. Call (212) 769-5547 for information about ticket availability for *Dinoday*. Those wishing to attend *Dino Rock* only can call (212) 769-5606 for ticket availability.

## ROTUNDA

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## Carlota Santana Spanish Dance Company

Thursday, June 8

The passionate flamenco is the root of Spanish dance and the focus of a performance by the Carlota Santana Spanish Dance Company. The company, which was founded in 1983 with the mission of preserving traditional dance, combines flamenco with original choreography influenced by salsa and jazz. Spanish dance for this company is educational as well as entertaining; it's a way to break down cultural barriers with deep plies, open arms, expressive move-

ments, and new rhythms.

Their repertoire will embrace the varied styles of Spanish dance from classical to folkloric to flamenco. From the sounds of the classical music of Albeniz to the gypsy chants of the *cante jondo* (deep song), the company portrays the roots of Spanish music and dance, which have had a great influence on the music of the Americas.

Touring with six to eight dancers and musicians, the ensemble has appeared to great critical acclaim on major dance stages throughout the United States, including the Joyce Theater in New York City, Albany's Empire State Performing Arts Center, the Schubert Theater in Connecticut, and many others.

The program will take place at 8:00 p.m. in the Main Auditorium. Tickets are \$15 for Members and \$20 for non-Members. Use the June Members' programs coupon at right to register.



Lois Greenblatt

## Members' Fossil Casting Workshop Dinosaurs in Relief

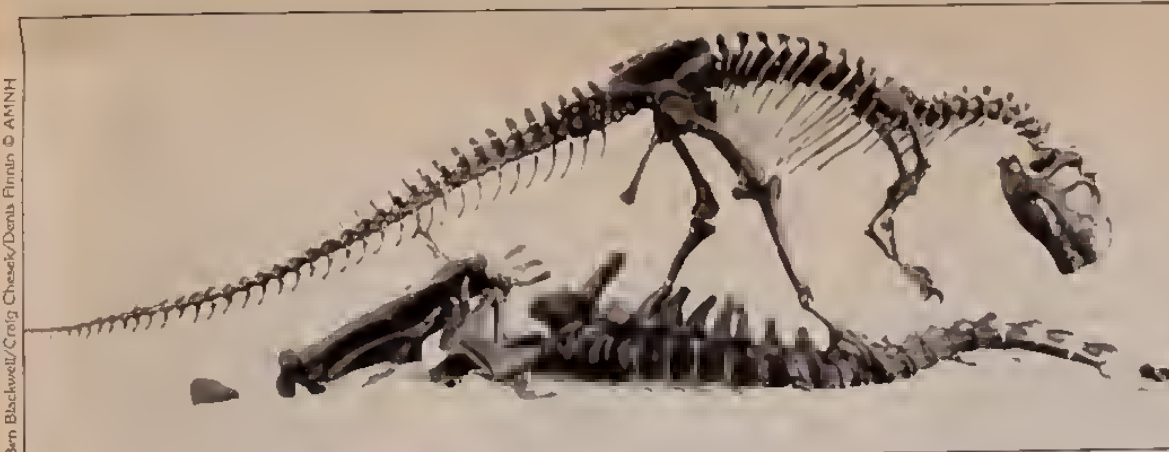
Saturday, July 22  
10:00 a.m.-1:00 p.m.  
\$50, and open only to Participating and Higher Members  
Ages 12 and older

Members will use teeth and tails, claws or jaws, chevrons, skin patches, and other dinosaurian parts to create their own professional-quality fossil collage. Participants will learn the techniques used by Museum artisans at this workshop, where they'll design their own low-relief dinosaur sculptures.

Participants will make a mold and pour casts to create a 3-D montage of dinosaur

parts. They'll work under the tutelage of Pamela Popeson, who has been working with artifacts and fine art objects for more than 16 years. She is currently a master craftsman at the Museum, where she makes molds and casts of specimens for the reproduction studio.

Use the coupon on page 5 to register for the workshops, and please note that tickets are available only by mail.



Bern Blackwell/Craig Chesley/Denise Finnin © AMNH

An Allosaurus feeds on Apatosaurus in the newly re-opened dinosaur halls

## Summer Workshops for Children

August 7-11  
10:30 a.m.-noon  
\$18, and open only to Participating and Higher Members  
Ages 6-9

Young Members can spend a summer morning at the Museum, where naturalist June Myles will show them some exhibits, introduce them to some fun facts, and help them make an arts-and-crafts item to take home. Use the *Summer Workshops for Children* coupon on this page to register, and please note that tickets are available only by mail.

*Long in the Tooth*, Monday, August 7. We'll take

adequate precautions to avoid the swish of the tail and the gnashing of teeth when we visit the carnosaurs ("flesh lizards") in their new home. They were massive, but were they quick? Are birds their living relatives? If so, why are birds so small? These are some of the puzzles we'll tackle. Then we'll make a tooth that will keep the tooth fairy jumping!

*Frills and Bills, Horns and Plates*, Tuesday, August 8. We're safe to wander through this neighborhood since the ornithischians were plant eaters. We'll examine the necessity of their add-ons — the frills and bills — and we'll try to understand what all these odd-looking creatures had in common. Then we'll construct one to take home — a well-known extinct species or perhaps a new discovery.

*But Before There Were Dinosaurs*, Wednesday, Au-

gust 9. There were BUGS! Big bugs! And they just keep coming. There are more of these little animals than any other creatures — probably more than 200,000 insects for every one of us — and many of them haven't even been identified yet. We'll look at fossil insects, enlarged insects, and everyday insects, and we'll make a bug pet to take home.

*What's the Point?* Thursday, August 10. Survival is usually the point, and we'll search the museum for all sorts of organisms that "got the point." Then we'll try to figure out how their adaptations helped in their survival, and we'll use some of these points to create a print.

*Snakes Alive!* Friday, August 11. We'll take a look at the snakes in the Hall of Reptiles and Amphibians, and then we'll fashion some serpents of our own to take home — garden variety or exotics.

## June Members' Programs Coupon

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Daytime telephone: \_\_\_\_\_

Membership category: \_\_\_\_\_

Total amount enclosed: \_\_\_\_\_

Please make check (if applicable) payable to the American Museum of Natural History and mail with a **self-addressed, stamped envelope** to: *June Members' Programs*, Membership Office, American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192. **Telephone reservations are not accepted. No refunds or exchanges.**

**Unless otherwise indicated, no more than eight tickets may be ordered for a program. Participating Members are entitled to four tickets per program at the Members' price. Higher Members are entitled to six tickets, and Associate Members are entitled to one ticket.**

**Spanish Dance.** Thursday, June 8, 8:00 p.m.  
Number of Members' tickets at \$15: \_\_\_\_\_  
Number of additional tickets at \$20: \_\_\_\_\_  
Total amount enclosed for program: \_\_\_\_\_

**Pueblo Myths** (for adults). Friday, June 16, 7:00 p.m.  
Number of Members' tickets at \$8: \_\_\_\_\_  
Number of additional tickets at \$12: \_\_\_\_\_  
Total amount enclosed for program: \_\_\_\_\_

**Prison Tattoos.** Tuesday, June 20, 7:00 p.m.  
Number of Members' tickets at \$8: \_\_\_\_\_  
Number of additional tickets at \$12: \_\_\_\_\_  
Total amount enclosed for program: \_\_\_\_\_

**Seeing New York.** Tuesday, June 27, 7:00 p.m.  
Number of Members' tickets at \$5: \_\_\_\_\_  
Number of additional tickets at \$8: \_\_\_\_\_  
Total amount enclosed for program: \_\_\_\_\_

**The Fossil Trail.** Thursday, July 6, 7:00 p.m.  
Number of Members' tickets at \$6: \_\_\_\_\_  
Number of additional tickets at \$9: \_\_\_\_\_  
Total amount enclosed for program: \_\_\_\_\_

**Spell of the Tiger.** Thursday, July 13, 7:00 p.m.  
Number of Members' tickets at \$8: \_\_\_\_\_  
Number of additional tickets at \$12: \_\_\_\_\_  
Total amount enclosed for program: \_\_\_\_\_

**NOTE:** Orders received less than ten days before show dates will be held for pick-up at the door on the day of the program if tickets are still available. If an event is sold out, you will be advised in writing or by phone and your check will be returned.

**Summer Workshops for Children.** Please indicate number of tickets for each workshop. Tickets are \$18 each.

*Long in the Tooth*, Aug. 7: \_\_\_\_\_

*Frills and Bills*, Aug. 8: \_\_\_\_\_

*But Before Dinosaurs*, Aug. 9: \_\_\_\_\_

*What's the Point?*, Aug. 10: \_\_\_\_\_

*Snakes Alive*, Aug. 11: \_\_\_\_\_

Total amount enclosed: \_\_\_\_\_

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Daytime telephone: \_\_\_\_\_

Membership category: \_\_\_\_\_

Please make check payable to the American Museum of Natural History and mail with a **self-addressed, stamped envelope** to: *Summer Workshops*, Membership Office, American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192.



## Spell of the Tiger

Thursday, July 13  
7:00 p.m.  
Kaufmann Theater  
\$8 for Members, \$12 for non-Members

*Spell of the Tiger* offers a look at the deadliest tigers on earth, the people who live among them, and a tropical world rich with myths, magic, and mystery. Author Sy Montgomery will tell the true story of a unique population of wild tigers that thrives be-

cause their human neighbors regard them as magical rulers of an enchanted land.

Sundarbans (pronounced SHUN-der-buns), the world's largest mangrove swamp, stretches between India and Bangladesh along the Bay of Bengal. Its tigers are



Sy Montgomery with Siberian tiger cub

formidable hunters that swim after boats, hunt by day as well as by night, and kill scores of people each year. The man-eaters seem to respect their prey, avoiding eye contact and declining to attack when their victims are facing them. For a while the tigers were deterred when people who ventured into the forest wore masks on the backs of their heads. But mostly, the people of Sundarbans protect themselves by prayer. For if the tiger re-

spects its victim, the feeling is mutual. The people of Sundarbans fear the tiger but do not hate or hunt it; instead, Hindus and Moslems worship it side by side. The man-eater is known by the name of Daksin Ray, the warrior tiger god and lord of the region.

Montgomery's lecture is based on her new book *Spell of the Tiger* (Houghton Mifflin Co.), praised in a *New York Times* book review as "fascinating" and "moving." Her research involved three

trips to India and Bangladesh, where she lived among the natives of Sundarbans and tracked tigers in the forest. Montgomery is also the author of *Walking with the Great Apes*, *Jane Goodall*, *Dian Fossey*, and *Birute Galdikas*. Copies of *Spell of the Tiger* will be available for purchase at the program, and there will be a book-signing after the show. Use the June Members' programs coupon on page 3 to register for the program.

## Take a Free Ride at the American Museum

The 63-foot Haida war canoe was carved from a single piece of wood in 1878 by natives of the Queen Charlotte Islands off British Columbia. The canoe is among the 50 treasures highlighted in the self-guided tours *Expedition: Treasures from 125 Years of Discovery*. Visitors can come to the base camp in the Hall of Asian Mammals on the second floor for an orientation session that sends them on a treasure hunt around the Museum



in the manner of a grand expedition. They can rent a CD-ROM handheld player that provides detailed information about each of the

treasures. *Expedition: Treasures from 125 Years of Discovery* has been generously sponsored by a grant from

Lincoln Continental. Lincoln is helping the Museum celebrate Parents and Grandparents Day by offering complimentary tickets for the

*Expedition* program that will be valid on June 24 and 25. The tickets are available at any New York area Lincoln-Mercury dealership.



Illustration of an oviaptor and nest by artist Gary Staab for the June 1995 issue of *Natural History* magazine.

## Set Aside a Nest Egg for Science and Conservation...

### With a Planned Gift to the American Museum of Natural History.

Help us promote preservation and extend understanding of the natural world for generations to come. Please call toll free 1 (800) 453-5734 or complete and return this confidential reply form to Jane C. Palmer, Director of Planned Giving, Office of Development, American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192.

Please send me information on:

- ☐ Including the Museum in my Will;
- ☐ A gift plan that provides lifetime income, offers an immediate income tax deduction and avoids capital gains tax when appreciated assets are sold to reinvest for higher income;
- ☐ Ways to support the Museum that assist in passing assets to heirs while significantly reducing — or even eliminating — estate tax.
- ☐ I have already included a bequest to the Museum in my Will.

Comments \_\_\_\_\_

Name \_\_\_\_\_

Address \_\_\_\_\_

Phone: Home \_\_\_\_\_

Office \_\_\_\_\_

Your reply is confidential and implies no obligation.

6/95



## The Fossil Trail

Thursday, July 6

7:00 p.m.

Kaufmann Theater

\$6 for Members, \$9 for non-Members

In one of the Hall of Human Biology and Evolution's dioramas a 3-million-year-old pair of our ancestors walk side by side through a snowy landscape of volcanic ash. They're hairy and ape-like but they're unmistakably human.

The diorama was based on a 1974 discovery of fossil footprints in Laetoli, Tanzania. How did the diorama's creators know what these early humans looked like, and how have scientists reconstructed the eons-long journey from these first ancient steps to where we stand today? In short, how do we know what we think we know about human evolution?

Anthropologist Ian Tattersall will explain at *The Fossil Trail*, an examination of the study of human evolution that will feature highlights from the colorful history of fossil discoveries and an insider's look at how these finds have been interpreted — and misinterpreted — through time.

Chairman and curator in the Department of Anthropology, Ian Tattersall was in charge of the design and



Diorama of earliest human relatives in the Hall of Human Biology and Evolution

execution of the Hall of Human Biology and Evolution, which opened in 1993. *The Fossil Trail* is presented in conjunction with the publication by Oxford University Press of his book of the same

name. The book will be available for purchase at the show, and Tattersall will sign copies afterward.

Use the June Members' programs coupon on page 3 to register.

## Members' Walking Tour

### The Genius and Elegance of Gramercy Park

Saturday, July 15

11:00 a.m.-2:00 p.m.

\$25, and open only to Participating and Higher Members

This landmark district started out as marshland and wound up as home to some of America's greatest inventors, architects, and actors. Members can explore the Gramercy Park area with historian Joyce Gold, who'll point out the nineteenth-century homes of Peter Cooper, Edwin Booth, and Stanford White. She'll also discuss other past residents — doctors, diarists, publishers,

writers, painters, losing and winning presidential candidates, and a witch.

Joyce Gold teaches New York history at New York University and the New School for Social Research. Participants will meet in front of the Gramercy Park Hotel on Lexington Avenue and 21st Street. Use the coupon on this page to register, and please note that tickets are available only by mail.

## Members' Day Trip to a

### Pennsylvania Coal Mine

Tuesday, July 25

7:30 a.m.-7:30 p.m.

\$65, and open only to Participating and Higher Members Ages 16 and older

Members can explore some of the Northeast's major geological provinces with Sidney Horenstein, the Museum's coordinator of environmental public programs.

They'll board a bus at the Museum and travel across New Jersey to the spectacular Delaware Water Gap. The journey continues across Pennsylvania's Appalachians,

where the group will board coal trains and enter both subsurface and open-pit mines. Retired coal miners will be on hand to discuss their experiences. The final stop is for a short walk along a wooded path to collect plant fossils.

Use the coupon on this page to register; tickets are available only by mail.

## Members' Day Trip

### How Water Works

New York City's Water Supply and Pollution Control Systems

Thursday, July 20

8:30 a.m.-5:30 p.m.

\$50, and open only to Participating and Higher Members

Members can observe a paragon of modern-day engineering on a tour of the New York City water supply system, which provides the best-quality municipal water in the world. Participants can learn about the current system as well as the city's planned improvements for the future. How the city treats its waste water and storm flow will also be shown.

The trip will begin with an extensive tour of the Ward's Island Pollution Control Plant. From there Members will

travel to the Bronx for a tour of the Jerome Park Reservoir and Pilot Filtration Plant.

The tours will view part of the Third Water Tunnel in the Bronx, and Members will descend more than 200 feet below Van Cortlandt Park to observe the internal water works. The trip will conclude at Hillview Reservoir.

Representatives from the Department of Environmental Protection will be on hand at all of the sites to explain aspects of the system, and Sidney Horenstein, the Mu-

seum's coordinator of environmental public programs, will lead the tours from start to finish.

Tickets are \$50 each. The fees for this program are for transportation and educational presentations only; there is no admission charge for tours of the sites. No food will be available on the tours, so be sure to bring a bag lunch and beverages. Participants must be 16 and older. Use the coupon on this page to register; tickets are available only by mail.

## Members' Guided Tours

Fiction, folklore, and fact are interwoven in a fascinating series of Museum tours. The following special tours will be conducted by Volunteer Highlights Tour guide Robert Campanile. All tours will begin at 6:30 p.m. Call (212) 769-5547 to register.

*A Midsummer Night.* Friday, June 23. Supernatural beings were thought to roam on midsummer night, and participants will cautiously explore some of the more remote corners of the Museum for signs of the supernatural. The tour will conclude in North American

Forests with a dramatic reading from Shakespeare's *A Midsummer Night's Dream*.

*Journey to the Center of the Earth.* Friday, July 14. A journey once made in science fiction can now be made in science fact when participants retrace the steps of Jules Verne's novel through Museum exhibits. Readings from the novel are combined with the reality of science to show how facts can be as exciting as the most imaginative work of fiction.

*The Equator.* Friday, August 18. Participants will circle the equator on a journey

of nearly 25,000 miles. The weather: hot, wet to chilly, dry, and even snowy. The wildlife: 500-pound turtles to inflatable birds. The land: flat grasslands and volcanic islands. The people: Asians, Africans, South Americans, and Pacific Islanders.

*King of the Wild Frontier.* Friday, September 15. Explore the life and times of an American folk hero — Davy Crockett, King of the Wild Frontier. Strange and interesting folklore about the wildlife of Davy's times will be related in an exciting mosaic of frontier life.

**Tours, Day Trips, and Workshops.** Use this coupon to register for the children's program *Pueblo Myths, Dinosaurs in Relief, How Water Works, the Coal Mine trip, and the Walking Tour of Gramercy Park.*

Name(s) of program(s): \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Number of tickets and price (please indicate which program if more than one): \_\_\_\_\_

\_\_\_\_\_

Total amount enclosed: \_\_\_\_\_

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Daytime telephone: \_\_\_\_\_

Membership category: \_\_\_\_\_

Please make check payable to the American Museum of Natural History and mail with a **self-addressed, stamped envelope** to: *Tours and Workshops, Membership Office, American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192.*



## Undiscovered Greek Islands



*The Parthenon, Athens*

Join American Museum provost of science Michael Novacek this fall, from September 23 through October 7, as he hosts the *Discovery Cruise Undiscovered Greek Islands* and lectures on the region's geology and natural history. American Museum participants will be joined by members of the Royal Ontario Museum and classicist Alexander McKay, who will share his expertise in Greek art and architecture.

Scattered throughout the Aegean Sea are hundreds of

islands, many of which are associated with Greek legends and history. Many of these small, out-of-the-way islands are seldom visited by tourists; for centuries only fishermen, pilgrims, and yachtsmen have known about their manifold charms and treasures — enchanting towns, fruit groves, Greek and Roman ruins, and Byzantine churches.

This cruise will visit more than ten of these isolated isles, including Amorgos, with its whitewashed monastery clinging to a sheer cliff;

Naxos, where a giant marble kouros of Apollo was carved more than 2,500 years ago but never finished and lies abandoned above the sea; Siphnos, site of many Byzantine monasteries; and Samothraki, with its ancient temple ruins.

Price (per person, double occupancy; airfare additional): \$6,507–\$6,857. For further information, call (800) 462-8687, or in New York State at (212) 769-5700, Monday through Friday, from 9:00 a.m. until 5:00 p.m.

## Education Department Field Trips and Geology Boat Cruises

The following programs are sponsored by the Department of Education. To register, send your check payable to the American Museum of Natural History and mail with a self-addressed, stamped envelope to: *Field Trips and Cruises*, Education Department, American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192. Be sure to indicate the title of the program and number of tickets. If you wish to charge to a Mastercard or Visa account, include the account number and expiration date.

Call (212) 769-5310 for further information.

### Field Trip to Sterling Hill Mine

Visit the last operating zinc mine in New Jersey, tour underground tunnels, and learn about mining history and technology. Joseph J. Peters, senior scientific assistant in the Department of Mineral Sciences, leads this exciting tour. Bring your own box lunch. *Saturday, June 3, 9:30 a.m.–5:00 p.m. \$50 (no discount for Members). Limited to 36 people.*

### A Geology Cruise Around Manhattan

A three-hour boat trip around Manhattan surveys regional geology. Sidney S. Horenstein, coordinator of the Museum's environmental programs, will discuss the origins of the Palisades, plant and animal environments, and local history. Bring your own box supper. *Tuesday, June 6, 6:00–9:00 p.m. \$22 for Members, \$25 for non-Members.*

### The Nooks and Crannies of Western New York Harbor

A three-hour boat tour travels south through the bay for unusual views of the Statue of Liberty and Ellis Island. Sidney S. Horenstein, coordinator of the Museum's environmental programs, will discuss the formation of the bays and other New York waterways. Bring your own box supper. *Tuesday, June 13, 6:00–9:00 p.m. \$22 for Members, \$25 for non-Members.*

### Exploring the Brooklyn Shore Line

A five-hour boat trip cruises along the Brooklyn shore to view forts dating back to the War of 1812. Passengers will sail under the Verrazano Narrows Bridge, pass Gravesend Bay, and travel around Coney Island toward the Rockaway outlet. Sidney S. Horenstein, coordinator of the Museum's environmental public programs, will comment on local history and ecology. Bring your own box lunch; snacks are available on board. *Saturday, June 10, 11:00 a.m.–4:00 p.m. \$32 for Members, \$35 for non-Members.*

### Fall Cape May Birding Weekend

Join Museum naturalists for a weekend of birding at Cape May, New Jersey, one of the world's bird-watching hot spots. The trip will include naturalist-led walks, informal lectures, a stop at Brigantine National Wildlife Refuge, and two boat trips. Fee includes accommodations, food, and transportation. *Friday–Sunday, October 20–22, \$350 (double occupancy). Limited to 45 people. Call (212) 769-5310 for itinerary.*

## Naturemax

The IMAX film *Africa: The Serengeti* explores the relationships between predator and prey by following the great migration of wildebeests, zebras, and other animals. Showtimes are 10:30 and 11:30 a.m. and 1:30 and 3:30 p.m. daily.

*Yellowstone* takes viewers on a journey to the national park to discover its history, geology, and wildlife. Showtimes are 12:30, 2:30, and 4:30 p.m.

On Friday and Saturday at 6:00 and 7:30 p.m., *Africa: The Serengeti* is shown on a double bill with *Yellowstone*. Schedules and prices are subject to change without notice. Call (212) 769-5650 for further information.

On July 1 two new movies will premiere in the Nature-

max Theater: *Destiny in Space* and *Titanica*. The newest feature in the astro-trilogy that includes *The Dream Is Alive* and *Blue Planet*, *Destiny in Space* is narrated by Leonard Nimoy and focuses on the intricate partnership of humans and robots in the future of space exploration. *Titanica*, which was shot during an international scientific expedition, takes audiences 12,500 feet beneath the murky North Atlantic to the haunting site of the wreck of the *Titanic*.

**Admission** (Participating and Higher Members)

Adults: \$4.75 single feature; \$6 double feature

Children: \$2.25 single feature; \$3.25 double feature

## Members' Birthday Parties at the Museum

Your child can play pin the tail on the *Stegosaurus*, make a "fossil" to take home, and enjoy the happiest of birthdays among the world's biggest and best dinosaurs. The dinosaur party, like all the Museum birthday parties, combines a tour of the exhibition halls with games and crafts activities.

Other theme parties for Members between the ages of 5 and 10 focus on fossil mammals, African mammals, reptiles and amphibians, ocean dwellers, Native Americans, and minerals and gems.

The group should be no

fewer than 10 and no more than 20. The fee is \$300 plus \$15 per child and covers all materials and the services of a Museum party coordinator. The coordinator will help you plan a party that suits your child's tastes and will handle everything from candles to party favors. All you need to do is bring the cake and help escort the guests. The parties, which are two hours long, are available only to Members at the Contributor (\$100) and higher levels.

For more information about the children's birthday parties call (212) 769-5542.

The Membership Office would like to thank the following young Members who celebrated their birthdays here recently: David Fouhey, Alexander Doyle, Brendan Segales, and Billy Holm.

## From the Volunteer Department

### A Planet-Walk through the Solar System: The Earth as a Peppercorn

It's difficult to picture the dimensions of the solar system — the planets are relatively small and distances between them almost absurdly great. For a model whose scale is true to size and distance, it's necessary to step outside.

A 1,000-yard model of the solar system, the planet-walk was devised in 1969 by astronomer and teacher Guy Ottewill. The walk begins on the Planetarium's front steps at 81st Street, where volunteer tour leader Robert Campanile will take participants on a journey of discovery that covers the universe.

The walks will take place at 1:00 p.m. on Sunday, June

18, and Sunday, July 16. For reservations and further information about the free tours, call the Volunteer Office at (212) 769-5566.

### Artists and Explorers of the AMNH: Time Well Spent

Come hear about dinosaur hunters of the past and present and the hardships they endured in the field. Learn what happens to fossils after they're discovered, see the results of the complex preparation process, and hear about the vast invisible support network behind the scenes.

These tours will take place on Saturday, June 3, at 5:30 p.m., and Friday, June 16, at 6:00 p.m. The tours are free but reservations are required. call (212) 769-5566.



# Happenings at the Hayden



The current Sky Show, The Ten Most-Asked Questions about the Universe, offers tips on using a telescope

## Lecture

### Frontiers in Astronomy and Astrophysics

On Thursday, June 15, at 7:30 p.m., Jerry Nelson will present an illustrated talk, "The Keck Super Telescopes." Nelson, who is an astronomer at the University of California and project director of the W.M. Keck Observatory, will talk about the unique design aspects of Keck 1, review some of the significant scientific findings for which it is responsible, and offer a progress report on Keck 2. This lecture is part of the *Frontiers in Astronomy and Astrophysics* series. Tickets are \$6 for Participating and Higher Members and \$8 for non-Members. For information about ticket availability and upcoming lectures, call (212) 769-5900. Use the coupon below to order tickets.

## Sky Show

### The Ten Most-Asked Questions about the Universe

What is a black hole? Is there life elsewhere in the universe? How will the universe end? This Sky Show answers these and other frequently asked questions about space.

Showtimes:  
Mon.-Fri.: 1:30 and 3:30 p.m.  
Sat.: 11:00 a.m. (except for June 3 and July 8) 1:00, 2:00, 3:00, 4:00, and 5:00 p.m.  
Sun.: 1:00, 2:00, 3:00, 4:00, and 5:00 p.m.

Admission (Participating and Higher Members)  
Adults: \$4  
Children (2-12): \$2

Call (212) 769-5100 for additional information and non-Members' prices. Please note that prices are subject to change without prior notice.

## Exhibition

### The Universe Revealed: Recent Images from the Hubble Space Telescope

This exhibition features photographs of recent discoveries made by the Hubble Space Telescope, including the M87 galaxy (which proves the existence of black holes) and images of the Shoemaker-Levy 9 comet strikes on Jupiter. A 1:15 scale model of the Space Shuttle Orbiter deploying the Hubble is on display, along with a scale model of the Optical Telescope Assembly of the Hubble Space Telescope and a video of the repair mission of December 1993.

## Children's Shows

Wonderful Sky is a special Sky Show for preschoolers. Children sing along with images of their favorite Sesame Street Muppets as they learn about rainbows, the phases of the moon, sunsets, and stars. Sat., June 3, at 10:30 and 11:45 a.m.

and Sat., July 8, at 10:30 a.m. Admission for Participating and Higher Members is \$4 for adults and \$2 for children. Members can purchase up to four tickets at the Members' price. Shows usually sell out in advance; reservations, by mail only, are necessary. Orders must be received two weeks prior to show date. Make your check payable to the Hayden Planetarium (attn: Wonderful Sky, Central Park West at 81st Street, New York, NY 10024-5192); indicate membership category and a first and second choice of showtimes. Be sure to include a self-addressed, stamped envelope and your daytime telephone number. For additional information call (212) 769-5900.

*Robots in Space* features Lucasfilm's R2D2 and C-3PO's and has been created especially for children ages 7 to 12. Together with a live host, these famous space robots take children on a tour of the universe. See how satellites and probes — the real space robots — help us learn about worlds near and far. Journey from the earth to other planets and distant black holes. Sat., July 8, and Sat., Sept. 9, at 11:45 a.m. Admission for Participating and Higher Members is \$4 for adults and \$2 for children. For information, call (212) 769-5900.

## Laser Light Shows

Journey into another dimension where laser visuals and rock music combine to create a dazzling 3-D experience of sight and sound. Shows are presented on Fridays and Saturdays at 7:00, 8:30, and 10:00 p.m. For prices and show schedule, telephone (212) 769-5100.

It's always a good idea to call before visiting the Planetarium, since prices, programs, and showtimes are subject to change without notice. For general Planetarium information, call (212) 769-5100.

**Lecture: "The Keck Super Telescopes"**  
Thursday, June 15, 7:30 p.m.

Number of Members' tickets at \$6 (no more than 4, please): \_\_\_\_\_  
Number of non-Members' tickets at \$8: \_\_\_\_\_  
Total amount enclosed for program: \_\_\_\_\_

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Daytime telephone: \_\_\_\_\_

Membership category: \_\_\_\_\_

Please make check payable to the Hayden Planetarium and mail with a **self-addressed, stamped envelope** to: **Lecture**, Hayden Planetarium, Central Park West at 81st Street, New York, NY 10024-5192.

Please note that ticket orders are subject to availability and cannot be processed without telephone number and stamped, self-addressed envelope. **Do not include ticket requests or checks for American Museum programs.**

# Museum Notes

**Hours**  
Exhibition Halls  
Mon.-Thurs. & Sun. 10:00 a.m.-5:45 p.m.  
Fri. & Sat. 10:00 a.m.-8:45 p.m.  
The Museum Shop  
Mon.-Thurs. & Sun. 10:00 a.m.-5:45 p.m.  
Fri. & Sat. 10:00 a.m.-7:45 p.m.  
The Junior Shop  
Mon.-Fri. 10:00 a.m.-4:45 p.m.  
Sat. & Sun. 10:00 a.m.-5:45 p.m.  
The Museum Library  
Tues.-Fri. 11:00 a.m.-4:00 p.m.  
The Natural Science Center  
For children of all ages and their families.  
Closed on Mondays and holidays.  
Tues.-Fri. 2:00-4:30 p.m.  
Sat. & Sun. 1:00-4:30 p.m.  
The Discovery Room  
Passes are distributed at the first-floor information desk beginning at 11:45 a.m. Ages 5-15.  
Children must be accompanied by an adult.  
Closed on holidays and weekdays.  
Sat. & Sun. Noon-4:30 p.m.

**Museum Dining**  
Diner Saurus Fast Service Eatery  
Daily 11:00 a.m.-4:45 p.m.  
Garden Cafe  
Reservations: (212) 769-5865  
Lunch: Mon.-Fri. 11:30 a.m.-3:30 p.m.  
Dinner: Fri. & Sat. 5:00-7:30 p.m.  
Brunch: Sat. & Sun. 11:00 a.m.-4:00 p.m.  
Whale's Lair  
Fri. 3:00-8:00 p.m.  
Sat. Noon-8:00 p.m.  
Sun. & most holidays Noon-5:00 p.m.  
Snack Carts  
Sat. & Sun. 11:00 a.m.-4:00 p.m.

**Entrances**  
During Museum hours visitors can enter the building through the 77th Street entrance, the parking lot entrance (81st Street), or the Roosevelt Memorial Hall entrance (79th Street and Central Park West). **Visitors attending programs after hours can enter the building at 79th Street and Central Park West.**

**Phone Numbers**  
Museum information (212) 769-5100  
Membership information (for questions about Museum events) (212) 769-5606  
Participating Members' Customer Service (for questions and problems related to Rotunda and Natural History magazine — missed issues, address changes, and other information) (800) 283-AMNH  
Planetarium information (212) 769-5900  
Education Department (212) 769-5310  
Discovery Tours (212) 769-5700  
.....toll-free outside NY State: (800) 462-8687  
Naturemax (212) 769-5650  
Development/Public Affairs (212) 769-5270  
Volunteer Office (212) 769-5566  
Museum Shop (212) 769-5150  
Library Services (212) 769-5400  
Natural History magazine (212) 769-5500

## Discover

Explore our Naturemax Dinner Theater Package  
See our latest feature African Serengeti  
Includes a complete dinner, entrée, appetizer or dessert and coffee  
per person \$21.00

Hours:  
Lunch, Mon.-Fri. 11:30-1:30  
Saturday and Sunday  
Brunch 11:00-1:00  
Dinner, evening, Fri.-Sat.  
5:00-7:30  
For Reservations  
Call 212-769-5865

Take advantage of "Expedition Dinner Deal"  
Roast Prime Rib of Beef  
served with potatoes and vegetable  
only \$14.95

And on weekends  
Join us for Complete Brunch  
Includes Soup, Garden Cafe Salad or Dessert and choice of:  
Eggs Benedict  
Belgian Waffle with Fresh Berries and Pure Maple Syrup  
Cream of the Day  
Coffee, Tea  
Decaffeinated Coffee  
\$13.95

## GARDEN CAFE

Located on lower level  
nearby DINER SAURUS



**Sun** **Mon** **Tue** **Wed** **Thu** **Fri** **Sat**

**June 1995**

**American Museum of Natural History**

**4** Last chance to see Spiders! in Gallery 3. **5**

**Spiders!**



Live tarantulas are among the attractions of the current Gallery 3 exhibition. Don't miss Spiders!, which closes on June 4.

Jonathan Coddington

**1** 4:00-9:00 p.m. Members' Preview of the New Dinosaur Halls. Free, and open only to Participating and Higher Members. Page 2.

**7:00 p.m.** Dinosaurs Today. Members' evening program. Kaufmann Theater. \$6 for Members, \$9 for non-Members. Page 2.

**8:00 p.m.** Carlota Sarrionana Spanish Dance Company. Members' evening program. Main Auditorium. \$15 for Members, \$20 for non-Members. Page 3.



**3** Dinoday. Members' family programs. Page 2.

**11:00 a.m.** NY Map Society. Room 319. Free.

**5:30 p.m.** Artists and Explorers of the American Museum: Time Well Spent. Guided tours. Page 6.

**11** 2:00 p.m. NY Shell Club. Room 319. Free.

**12**

**13**

**14** 5:30 p.m. NY Mineralogical Club. Room 319. Free.

**15** 7:30 p.m. Frontiers in Astronomy and Astrophysics. Speaker, Jerry Nelson: "The Keck Super Telescopes." Planetarium Sky Theater. \$6 for Members, \$8 for non-Members. Page 7.

**16** 6:00 p.m. Artists and Explorers of the American Museum: Time Well Spent. Guided tours. Page 6.

**7:00 p.m.** Pueblo Myths. Members' evening program for adults. Linder Theater. \$8 for Members, \$12 for non-Members. Page 2.

**17** 11:00 a.m. Pueblo Myths. Members' children's program. \$10, and open only to Participating and Higher Members. Tickets required. Page 2.

**18** Father's Day. 1:00 p.m. A Planet-Walk through the Solar System: The Earth as a Peppercorn. Page 6.

**19**

**20** 7:00 p.m. Prison Tattoos. Members' evening program. Kaufmann Theater. \$8 for Members, \$12 for non-Members. Page 2.

**7:30 p.m.** Linnaean Society. Leonhardt People Center. Free.

**21**

**22**

**23** 6:30 p.m. A Midsummer Night. Members' guided tour. Free, but reservations are required. Page 5.

**24**

**25**



**27** 7:00 p.m. Seeing New York: History Walks for Armchair and Footloose Travelers. Members' evening program. Kaufmann Theater. \$5 for Members, \$8 for non-Members. Page 2.

**28**

**29**

**New Parking Policy**

As of July 1, parking will no longer be complimentary for people attending evening programs. Standard rates will apply. Rates for cars entering between 7:00 a.m. and 5:00 p.m. start at \$5 for up to a half-hour and advance by stages to a closing-time maximum of \$17. Cars entering between 5:00 p.m. and 11:30 p.m. are charged a minimum of \$5 and a maximum of \$7 on Sunday through Thursday and a maximum of \$12 on Friday and Saturday.

Buses are charged \$11 and are not admitted on weekends. For further information about parking rates, call (212) 769-5121.

The parking lot is open every day from 7:00 a.m. till 11:30 p.m. The parking lot has a capacity of 100 vehicles and is opened on a first-come, first-served basis.

Call the Membership Office at (212) 769-5606 for information about alternative parking.



# ROTUNDA

For Participating and Higher Members of the American Museum of Natural History

Vol. 20, No. 7 July/August 1995



The purchase of Manhattan Island is among the subjects of a series of Members' walking tours that will take a new look at some familiar places and venture off the beaten path to explore several lesser-known resources.

Use the coupon on page 5 to order tickets, which are available only by mail to Participating and Higher Members ages 16 and older. Details of other tours and day trips appear on pages 3 and 5.

## Members' Walking Tour

### Brooklyn and the Heights

Tuesday, July 18

Inspiring views of the Manhattan skyline await Members as they stroll the pedestrian promenade of Brooklyn Heights. Brooklynites have been looking across the East River since the area's original inhabitants, the Canarsee Indians, were displaced by Dutch settlers. The Dutch organized Breukelen into small towns — including Boswijk (Bushwick) and Vlackedbos (Flatbush) — and the area became a popular suburban enclave during the early nineteenth century, when wealthy merchants and bankers took up residence and traveled by ferry to their work in Manhattan.

James P. Shenton, professor of history at Columbia University, will lead this walking tour of the Brooklyn Heights area. He'll point out numerous landmark buildings and describe the neighborhood's colorful history, from its sleepy seventeenth-century days as a rural sprawl of fishing and farming villages to the turbulent times of the Revolutionary War, when British troops forced Washington

and his army to retreat to Manhattan. Shenton will also discuss Brooklyn's growth into the nation's third-largest industrial city by the mid-nineteenth century and the continuing appeal of its tree-lined streets and restored brownstones.

The tours will take place from noon to 2:30 p.m. and from 4:00 to 6:30 p.m. Tickets are \$20.

## Members' Tour of the Brooklyn Botanic Garden

Thursday, August 3

One of America's foremost public gardens, the Brooklyn Botanic Garden contains a magnificent array of plant life and natural features, including a world-famous rose garden and conifer collection, a Japanese hill-and-pond garden and bonsai museum, and spectacular conservatories and lily ponds. Other highlights are a local flora section, featuring plants native within a 100-mile radius of New York City, and a dramatic terminal moraine with erratic boulders left over from the last Ice Age.

Participants will meet at 11:00 a.m. in the garden, where they'll begin with *Seasonal Highlights*, a 90-minute guided tour. Afterward they can purchase lunch at the Terrace Cafe or eat their own bag lunches in nearby Prospect Park.

After lunch Members will be treated to *A History of Gardens and Gardening in New York*, a slide-lecture by horticulturist Victoria Jahn, the garden's associate director of Information Services. The lecture will conclude at 2:00 p.m., and participants will be free to explore on their own until the

garden closes at 6:00 p.m. Tickets are \$25.

## Members' Walking Tour

### Before and After 1624: The Dutch in New York

Tuesday, August 15

The first European settlers of New York, the seventeenth-century Dutch, constituted one of the great commercial powers of history. Although they left the area 300 years ago, the Dutch greatly influenced the architecture of lower Manhattan, and their worldview is an indelible part of the city.

Participants in the walking tour, which will be led by historian Peter Laskowich, will trace the resources that assured New York's eventual greatness, and they'll learn how the Dutch treatment of those resources affects actions of the present.

Tours will take place from 4:00 to 5:30 p.m. and from 6:00 to 7:30 p.m. Tickets are \$20.

## Members' Day Trip to the

### Jacques Marchais Museum of Tibetan Art and the

### Richmondton Restoration Historical Village

Thursday, August 17

A day trip to Staten Island will explore a pair of local treasures: the Jacques Marchais Museum of Tibetan

Art and the Richmondton Restoration Historical Village. Participants will see a variety of Tibetan artforms (including metal figures of deities and lamas, thangka paintings, jewelry, and dance masks), and they'll learn about the history, agriculture, commerce, and maritime life of Staten Island from the seventeenth century onward.

The Jacques Marchais Museum of Tibetan Art (also known as the Tibetan Museum) is designed like a small Tibetan mountain temple tucked away from the world. Terraced sculpture gardens, a lily and fish pond, and a distant view of the Lower Bay contribute toward an atmosphere of serenity and beauty. The collections on display are Tibetan, Tibeto-Chinese, Nepalese, and Mongolian in origin and date primarily from the seventeenth to nineteenth centuries and earlier. Exhibits include jewel-encrusted Nepalese metalwork, a set of silver ceremonial implements used by a previous Panchen Lama (1883-1937), and other items that have never before been on display.

After a guided tour at the Tibetan Museum, participants will travel the short distance to the Richmondton Restoration. They'll be greeted by costumed guides, who will talk to them about the restoration's re-creation of a rural Staten Island community. Twenty-seven historic buildings, many of which have been restored and furnished, illustrate the evolution of Richmond from its beginnings in the 1600s as a rural crossroads through its development as a county seat and its incorporation as a borough of New York City.

The day trip will take place from 8:30 a.m. to 5:00 p.m.; transportation is by bus from the Museum. Tickets are \$50.



## Spell of the Tiger

Thursday, July 13

*Spell of the Tiger* offers a look at the deadliest tigers on earth, the people who live among them, and a tropical world rich with myths, magic,



Sy Montgomery

and mystery. Author Sy Montgomery will tell the true story of a unique population of wild tigers that thrives because their human neighbors regard them as magical rulers of an enchanted land.

Sundarbans (pronounced SHUN-der-buns), the world's largest mangrove swamp, stretches between India and Bangladesh along the Bay of Bengal. Its tigers are formidable hunters that swim after boats, hunt by day as well as by night, and kill scores of people each year. The man-eaters seem to respect their prey, avoiding eye contact and declining to attack when their victims are facing them. For a while the tigers were deterred when people who ventured into the forest wore masks on the backs of their heads. But mostly, the people of Sundarbans protect themselves by prayer. For if the tiger respects its victim, the feeling is mutual. The people of Sundarbans fear the tiger but do not hate or hunt it; instead, Hindus and

Moslems worship it side by side. The man-eater is known by the name of Daksin Ray, the warrior tiger god and lord of the region.

Montgomery's lecture is based on her new book *Spell of the Tiger* (Houghton Mifflin Co.), praised in a *New York Times* book review as "fascinating" and "moving." Her research involved three trips to India and Bangladesh, where she lived among the natives of Sundarbans and tracked tigers in the forest. Montgomery is also the author of *Walking with the Great Apes: Jane Goodall, Dian Fossey, and Birute Galdikas*. Copies of *Spell of the Tiger* will be available for purchase at the program, and there will be a book-signing after the show.

The program will take place at 7:00 p.m. in the Kaufmann Theater. Tickets are \$8 for Members and \$12 for non-Members. Use the July/August Members' programs coupon on page 3 to register.

## Members' Fossil Casting Workshop

### Dinosaurs in Relief

Saturday, July 22

Members will use teeth and tails, claws or jaws, chevrons, skin patches, and other dinosaurian parts to create their own professional-quality fossil collage. Participants will learn the techniques used by Museum artisans at this workshop, where they'll design their own low-relief dinosaur sculptures.

Participants will make a mold and pour casts to create a 3-D montage of dinosaur parts. They'll work under the tutelage of Pamela Popeson,

who has been working with artifacts and fine art objects for more than 16 years. She is currently a master craftsman at the Museum, where she makes molds and casts of specimens for the reproduction studio.

The workshop will take place from 10:00 a.m. to 1:00 p.m. Tickets are \$50 and available only by mail to Participating and Higher Members ages 12 and older. Use the coupon on page 5 to register.

## Members' Guided Tours

Fiction, folklore, and fact are interwoven in a fascinating series of Museum tours. The following special tours will be conducted by Volunteer Highlights Tour guide Robert Campanile. All tours will begin at 6:30 p.m. Call (212) 769-5547 to register.

*Journey to the Center of*

*the Earth*. Friday, July 14. A journey once made in science fiction can now be made in science fact when participants retrace the steps of a Jules Verne novel through Museum exhibits. Readings from *Journey to the Center of the Earth* are combined with the reality of science to show how facts can be as exciting as fiction.

*The Equator*. Friday, August 18. Participants will circle the equator on a journey of nearly 25,000 miles. The weather: hot, wet to chilly, dry, and even snowy. The wildlife: 500-pound turtles to inflatable birds. The land: flat grasslands and volcanic islands. The people: Asians, Africans, South Americans, and Pacific Islanders.

*King of the Wild Frontier*. Friday, September 15. Explore the life and times of an American folk hero — Davy Crockett, King of the Wild Frontier. Strange and interesting folklore about the wildlife of Davy's times will be related in an exciting mosaic of frontier life.



The Equator:  
A Galápagos scene

## Summer Workshops for Children

August 7-11

Young Members can spend a summer morning at the Museum, where naturalist June Myles will show them some exhibits, introduce them to some fun facts, and help them make an arts-and-crafts item to take home.

The workshops, which are geared toward children between the ages of 6 and 9, will take place from 10:30 a.m. to noon. Tickets are \$18 each and available only by mail to Participating and Higher Members. Use the Workshops coupon on page 3 to register.

*Long in the Tooth*. Monday, August 7. We'll take adequate precautions to avoid the swish of the tail and the gnashing of teeth when we visit the camosaurs ("flesh lizards") in their new home. They were massive, but were they quick? Are birds their

living relatives? If so, why are birds so small? These are some of the puzzles we'll tackle. Then we'll make a tooth that will keep the tooth fairy jumping!

*Frills and Bills, Horns and Plates*. Tuesday, August 8. We're safe to wander through this neighborhood since the ornithischians were plant eaters. We'll examine the necessity of their add-ons — the frills and bills — and we'll try to understand what all these odd-looking creatures had in common. Then we'll construct one to take home — a well-known extinct species or perhaps a new discovery.

*But Before There Were Dinosaurs*. Wednesday, August 9. There were BUGS! Big bugs! And they just keep coming. There are more of these little animals than any other creatures — probably

more than 200,000 insects for every one of us — and many of them haven't even been identified yet. We'll look at fossil insects, enlarged insects, and everyday insects, and we'll make a bug pet to take home.

*What's the Point?* Thursday, August 10. Survival is usually the point, and we'll search the museum for all sorts of organisms that "got the point." Then we'll try to figure out how their adaptations helped in their survival, and we'll use some of these points to create a print.

*Snakes Alive!* Friday, August 11. We'll take a look at the snakes in the Hall of Reptiles and Amphibians, and then we'll fashion some serpents of our own to take home — garden variety or exotics.

## The Fossil Trail

Thursday, July 6

In one of the Hall of Human Biology and Evolution's dioramas a 3-million-year-old pair of our ancestors walk side by side through a snowy landscape of volcanic ash. They're hairy and ape-like but they're unmistakably human.

The diorama was based on a 1974 discovery of fossil footprints in Laetoli, Tanzania. How did the diorama's creators know what these early humans looked like, and how have scientists reconstructed the eons-long journey from these first ancient steps

to where we stand today? In short, how do we know what we think we know about human evolution?

Anthropologist Ian Tattersall will explain at *The Fossil Trail*, an examination of the study of human evolution that will feature highlights from the colorful history of fossil discoveries and an insider's look at how these finds have been interpreted — and misinterpreted — through time.

Chairman and curator in the Department of Anthropology, Ian Tattersall was in charge of the design and exe-

cution of the Hall of Human Biology and Evolution, which opened in 1993. *The Fossil Trail* is presented in conjunction with the publication by Oxford University Press of his book of the same name. The book will be available for purchase at the show, and Tattersall will sign copies afterward.

The program will take place at 7:00 p.m. in the Kaufmann Theater. Tickets are \$6 for Members and \$9 for non-Members. Use the Members' programs coupon on page 3 to register.

# ROTUNDA

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## Trekking the Urban Wilds

Geologist Sidney Horenstein will take Members for a look at three places that are not only geographically distant but also offer the widest representation of the city's landscapes.

Horenstein, who is the Museum's coordinator of environmental public programs, will lead the two-hour tours. They'll take place at 4:00 and 6:00 p.m. Use the coupon on page 5, and be sure to indicate the name of the tour, the date, and a preferred time. Tickets are \$20 for each tour or \$50 for all three tours and available only by mail to Participating and Higher Members.

**Foley Square: An Urban Center.** Tuesday, August 22. Once the site of a pond, Foley Square has few indications of its heritage. This trip explores the geologic history of the area and its vestiges of nature.

**Northern Central Park: An Altered Landscape.** Wednesday, August 23. Even though its surface has been altered, Central Park retains some of New York's original landscape features. The park's northern end holds many surprises.

**Inwood Hill Park: Nature at Its Best.** Thursday, August 24. The last of Manhattan Island's remaining woodland is within Inwood

Park. Participants on this walking tour will see Indian shell middens and vistas of northern Manhattan, the Bronx, and the Hudson.



## Clearwater Sail

Wednesday, August 30  
1:00-4:00 p.m.

\$50, and open only to Participating and Higher Members



Come aboard for a Hudson River cruise

Help hoist the sails on a replica of a vessel that linked the communities on the Hudson River during the eighteenth and nineteenth centuries. Members can spend a summer afternoon aboard a Clearwater vessel, where the crew will discuss the Hudson's ecology and the problems arising when ecological rela-

tionships are ignored. They'll show how the environment might be made cleaner, healthier, and more productive, and they'll illustrate life within the river with the vessel's nets and other equipment.

Sailors must be at least 8 years old; children under that age will not be permitted

aboard. Be sure your clothes are warm and casual (soft-soled, flat-heeled shoes are advised). This cruise is an environmental excursion, not a learn-how-to-sail trip; participants are confined to four tickets per request. Tickets are available only by mail order; use the coupon on page 5 to register.

## July/August Members' Programs Coupon

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Daytime telephone: \_\_\_\_\_

Membership category: \_\_\_\_\_

Total amount enclosed: \_\_\_\_\_

Please make check (if applicable) payable to the American Museum of Natural History and mail with a **self-addressed, stamped envelope** to: **July/August Members' Programs**, Membership Office, American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192. **Telephone reservations are not accepted. No refunds or exchanges.**

**Unless otherwise indicated, no more than eight tickets may be ordered for a program. Participating Members are entitled to four tickets per program of the Members' price, Higher Members are entitled to six tickets, and Associate Members are entitled to one ticket.**

**The Fossil Trail.** Thursday, July 6, 7:00 p.m.

Number of Members' tickets at \$6: \_\_\_\_\_

Number of additional tickets at \$9: \_\_\_\_\_

Total amount enclosed for program: \_\_\_\_\_

**Spell of the Tiger.** Thursday, July 13, 7:00 p.m.

Number of Members' tickets at \$8: \_\_\_\_\_

Number of additional tickets at \$12: \_\_\_\_\_

Total amount enclosed for program: \_\_\_\_\_

**Ancestral Passions: The Leakey Family.** Thursday, September 7, 7:00 p.m.

Number of Members' tickets at \$5: \_\_\_\_\_

Number of additional tickets at \$8: \_\_\_\_\_

Total amount enclosed for program: \_\_\_\_\_

**NOTE: Orders received less than ten days before show dates will be held for pick-up at the door on the day of the program if tickets are still available. If an event is sold out, you will be advised in writing or by phone and your check will be returned.**

**Summer Workshops for Children.** Please indicate number of tickets for each workshop. Tickets are \$18 each.

Long in the Tooth, Aug. 7: \_\_\_\_\_

Frills and Bills, Aug. 8: \_\_\_\_\_

But Before Dinosaurs, Aug. 9: \_\_\_\_\_

What's the Point?, Aug. 10: \_\_\_\_\_

Snakes Alive, Aug. 11: \_\_\_\_\_

Total amount enclosed: \_\_\_\_\_

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Daytime telephone: \_\_\_\_\_

Membership category: \_\_\_\_\_

Please make check payable to the American Museum of Natural History and mail with a **self-addressed, stamped envelope** to: **Summer Workshops**, Membership Office, American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192.



## Admission Price Changes

These price changes will be effective Saturday, July 1. As always, Members will be admitted to the Museum free.

Information on combination ticket prices will be available soon.

	Museum	IMAX	Planetarium
Members (adults)	Free	\$5	\$5
Members (children)	Free	\$3	\$3
Non-Members (adults)	\$7	\$7	\$7
Non-Members (children)	\$4	\$4	\$4
Seniors/Students	\$5	\$5	\$5



## Flora Portrayed

One hundred and thirty-six botanical illustrations from *Cornegie-Mellon University's Hunt Institute* will be on display in Gallery 77 from Friday, July 14, through the end of December. *Flora Portrayed* features works ranging from the development of modern botany in the Renaissance to the twentieth century.

## Fall Education Department Field Trips

The following programs are sponsored by the Department of Education. To register, send your check payable to the American Museum of Natural History and mail with a self-addressed, stamped envelope to: Field Trips, Education Department, American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192. Be sure to indicate the title of the program and number of tickets. If you wish to charge to a Mastercard or Visa account, include the account number and expiration date. Call (212) 769-5310 for further information.

### Fall Bird Walks in Central Park

Observe the autumn migration of birds through Central Park with naturalists Stephen C. Quinn (Tuesdays) and Harold Feinberg (Thursdays). Learn how to use field marks, habitat, behavior, and song as aids in bird identification. Participants meet on the northeast corner of Central Park West and 77th Street. **Nine Tuesdays, Sept. 5–Oct. 31, 7:00–9:00 a.m., \$50. Eight Thursdays, Sept. 7–Oct. 26, 9:00–11:00 a.m., \$44.** For availability of individual walks, please call (212) 769-5310 one week in advance to make reservations. Limited to 25 people.

### Fall Botany Walking Tours in Central Park

Participants will observe signs of autumn in the flowers and trees during a two-hour morning walk in Central Park. They'll learn about plant identification and ecology from



Hudson River Lighthouse Explorations

William Schiller, lecturer in botany in the Department of Education. **Saturdays, Sept. 23 or Oct. 7, or Wed., Oct. 11, 9:00–11:00 a.m., \$9 per walk; indicate date when ordering tickets. Limited to 25 people.**

### Fall Cape May Birding Weekend

Join Museum naturalists for a weekend of birding at Cape May, New Jersey, one of the world's bird-watching hot spots. The trip includes naturalist-led walks, informal lectures, a stop at the famed Brigantine National Wildlife Refuge, and two boat excursions to observe seabirds and possibly whales and dolphins.

Fee includes accommodations, food, and transportation. Trip leaders are Brad Burnham, a natural science instructor in the Education Department, and Stephen C. Quinn, naturalist and experienced birder. **Fri.–Sun., Oct.**

**20–22, \$350 per person (double occupancy). Limited to 45 adults. Call (212) 769-5310 for itinerary and application.**

### Hudson River Lighthouse Explorations

Visit the Tarrytown Lighthouse with educator Christopher Letts of the Hudson River Foundation. Explore the lighthouse and learn about past and present river navigation, the lives of lighthouse families, and the natural history of estuarine systems.

After the lighthouse visit, participants will investigate problems of river ecology through simulated oil spills, water pollution clean-up activities, and study of riverine organisms. Uta Gore, senior instructor in the Department of Education, leads this exploration in ecology. Bring a box lunch. **Saturday, Oct. 14, 8:30 a.m.–5:00 p.m., \$50. Limited to 25 participants.**

## Is New York City's Water Safe to Drink?

Wednesday, September 27

6:30 p.m.

Kaufmann Theater

\$5 for Members, \$8 for non-Members

Because of numerous questions about the quality of New York City's drinking water, the City Club of New York invited a panel of independent experts to compile a status report on the safety of tap water. After months of research, review of reports, and dozens of interviews, the panel will present its final report.

The panel also evaluated the safety of substitute sources of water (e.g., bottled water and soft drinks) and of home filters and purifiers as well as the threat of the parasite *Cryptosporidium* to immunosuppressed individuals. After the presentation of the report the meeting will be open to questions and discussion from the audience.

The panelists are Edward Gershey, the New York Academy of Medicine; David Locke, the New York Academy of Science; and Sidney Horenstein, American Museum of Natural History.

To order tickets send your check payable to the American Museum of Natural History and a self-addressed, stamped envelope to: Water, Environmental Programs, American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192. Be sure to include a separate sheet of paper on which you've indicated your name, address, daytime telephone number, number of tickets, and amount of the check. Call (212) 769-5750 for further information.

## Ancestral Passions

*The Leakey Family and the Quest for Humankind's Beginnings*

Thursday, September 7

7:00 p.m.

Kaufmann Theater

\$5 for Members, \$8 for non-Members

Because their discoveries laid the foundations for much of what we know about human origins, the Leakeys — Louis, Mary, and Richard — are renowned as the first family of anthropology. Each of the family made key fossil discoveries; Louis, in particular, laid the theoretical groundwork for the science of paleoanthropology by arguing that human life did not originate on the Eurasian continent tens of thousands of years ago but likely evolved in Africa millions of years ago.

Members can hear about this fascinating family and their work at a presentation by Virginia Morell, who has written the family's first full biography, *Ancestral Passions* (Simon and Schuster, 1995). She'll discuss the Leakeys' many significant finds as they pushed

back the scope of human ancestry and articulated our relationship to the other primates, especially early hominids. Morell will talk about the jealousies between these three forceful figures as well as their rivalries with other scientists. She'll also describe how the Leakeys fostered the work of other researchers, including the pioneering studies of Louis's most famous protégées, Jane Goodall, Birute Galdikas, and Dian Fossey.

A science writer whose work has appeared in *Discover*, *Science*, *The New York Times Magazine*, and other publications, Morell will sign copies of her new book after the program. Use the programs coupon on page 3 to register.



## Two New Movies at the IMAX Theater

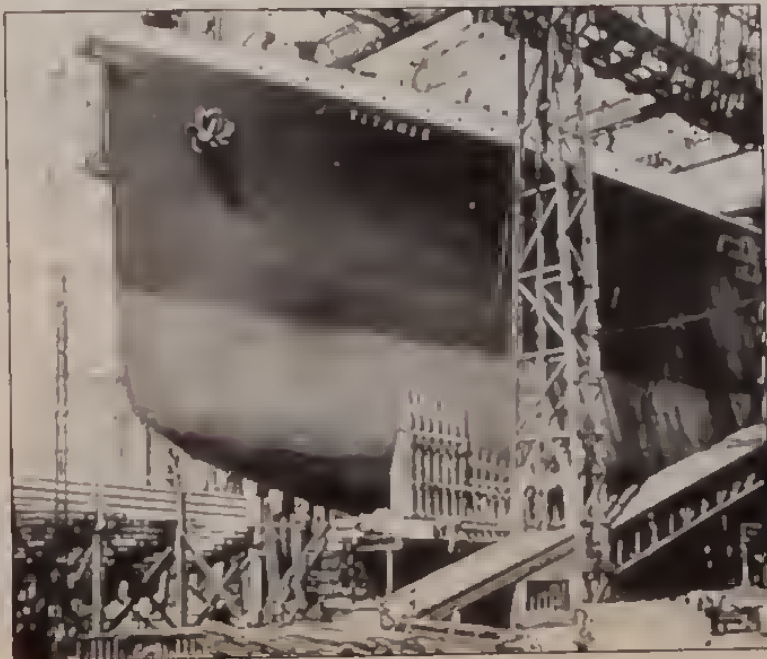
On July 1 two new movies will premiere in the IMAX Theater: *Destiny in Space* and *Titanica*. Narrated by Leonard Nimoy, *Destiny in Space* focuses on the intricate partnership of humans and robots in the future of space exploration. It is the newest feature in the trilogy that includes *The Dream Is Alive* and *Blue Planet*. *Titanica*, which was shot during an international scientific expedition, takes audiences 12,500 feet beneath the murky North Atlantic to the haunting site of the wreck of the *Titanic*.

Showtimes for *Destiny in Space* are 10:30 and 11:30 a.m. and 1:30 and 3:30 p.m. daily. *Titanica* is shown at 12:30, 2:30, and 4:30 p.m. On Friday and Saturday at 6:00 and 7:30 p.m. the films are shown on a double-feature bill. Double-feature tickets are also available during the day. Each film is 40 minutes long.

Admission for Participating and Higher Members is \$5 for adults and \$3 for children. Schedules and prices are subject to change without notice. Call (212) 769-5650 for further information, including double-feature prices.



*Destiny in Space*



*Titanica*

### Members' Walking Tour

## The Genius and Elegance of Gramercy Park

Saturday, July 15

11:00 a.m.-2:00 p.m.

\$25, and open only to Participating and Higher Members

This landmark district started out as marshland and wound up as home to some of America's greatest inventors, architects, and actors. Members can explore the Gramercy Park area with historian Joyce Gold, who'll point out the nineteenth-century homes of Peter Cooper, Edwin Booth, and Stanford White. She'll also discuss other past residents — doctors, diarists, publishers, writers, painters, losing and winning presidential candidates, and a witch.

Joyce Gold teaches history at New York University and the New School for Social Research. Participants will meet in front of the Gramercy Park Hotel on Lexington Avenue and 21st Street. Use the coupon on this page to register; tickets are available only by mail.

at New York University and the New School for Social Research. Participants will meet in front of the Gramercy Park Hotel on Lexington Avenue and 21st Street. Use the coupon on this page to register; tickets are available only by mail.

### Members' Day Trip to a

## Pennsylvania Coal Mine

Tuesday, July 25

7:30 a.m.-7:30 p.m.

\$65, and open only to Participating and Higher Members  
Ages 16 and older

Members can explore some of the Northeast's major geological provinces with Sidney Horenstein, the Museum's coordinator of environmental public programs.

They'll board a bus at the Museum and travel across New Jersey to the spectacular Delaware Water Gap. The journey continues across Pennsylvania's Appalachians, where the group will board coal trains and enter both subsurface and open-pit mines. Retired coal miners will

be on hand to discuss their experiences. The final stop is for a short walk along a wooded path to collect plant fossils.

Use the coupon on this page to register; tickets are available only by mail.

Use the coupon on this page to register; tickets are available only by mail.

### Members' Day Trip

## How Water Works

New York City's Water Supply and Pollution Control Systems

Thursday, July 20

8:30 a.m.-5:30 p.m.

\$50, and open only to Participating and Higher Members

Members can observe a paragon of modern-day engineering on a tour of the New York City water supply system, which provides the best-quality municipal water in the world. Participants can learn about the current system as well as the city's planned improvements for the future. How the city treats its waste water and storm flow will also be shown.

The trip will begin with an extensive tour of the Ward's Island Pollution Control Plant. From there Members will travel to the Bronx for a tour of the Jerome Park Reservoir and Pilot Filtration Plant.

The tours will view part of the Third Water Tunnel in the Bronx, and Members will descend more than 200 feet below Van Cortlandt Park to observe the internal water

works. The trip will conclude at Hillview Reservoir.

Representatives from the Department of Environmental Protection will be on hand at all of the sites to explain aspects of the system, and Sidney Horenstein, the Museum's coordinator of environmental public programs, will lead the tours from start to finish.

Tickets are \$50 each. The fees for this program are for transportation and educational presentations only; there is no admission charge for tours of the sites. No food will be available on the tours, so be sure to bring a bag lunch and beverages. Participants must be 16 and older. Use the coupon on this page to register; and please note that tickets are available only by mail.

**Tours, Day Trips, and Workshops.** Use this coupon to register for *Dinosaurs in Relief*, *How Water Works*, the Coal Mine trip, *Trekking the Urban Wilds* (indicate name of tour and preferred time), *Clearwater Sail*, the trip to the Tibetan Museum and Richmondtown, the tour of the Brooklyn Botanic Garden, and the walking tours *Brooklyn and the Heights*, *The Dutch in New York*, and *Gramercy Park*.

Name(s) of program(s): \_\_\_\_\_

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Number of tickets and price (please indicate which program if more than one): \_\_\_\_\_

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Total amount enclosed: \_\_\_\_\_

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Daytime telephone: \_\_\_\_\_

Membership category: \_\_\_\_\_

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## Christmas in the Caribbean



*The toll ship Star Clipper*

This holiday season a team of lecturers from the American Museum will lead a voyage of discovery aboard the elegant four-masted tall ship *Star Clipper*. They'll cruise among the Lesser Antilles of the Caribbean from December 23 to 30 in a leisurely exploration of some of the world's most beautiful waters. The ship, which will anchor in secluded coves and out-of-the-way marinas, was built in 1991 in the tradition of the graceful clipper ships of the nineteenth century. Most of the time at sea will be spent under sail, with 36,000

square feet of canvas billowing overhead as the predominant northeast trade winds of the region propel the vessel.

Traveling by ship is the perfect way to experience the natural wonders of the Caribbean. Some of the highlights include the rain forests of Grenada, the volcanic peaks of St. Lucia, and the spectacular coral reefs of the Grenadines. Participants will snorkel from an uninhabited island and swim in the crystalline shallow pools below the Falls of Baleine on St. Vincent.

This cruise has been attrac-

tively priced so that the whole family can explore the Caribbean together. However, space is extremely limited, so please call immediately if you are interested. Prices are \$2,150-\$3,250 per adult, double occupancy; \$1,895 per child under 18 sharing with an adult; and \$855 for a third person sharing a cabin; airfare is additional.

For more information about this cruise, call Discovery Tours at (800) 462-8687 or in New York State at (212) 769-5700, Monday-Friday, 9:00 a.m.-5:00 p.m.

## Art in the Service of Science

### *A New Exhibition in the Library Gallery*

When Sir Stamford Raffles, founder of Singapore, returned to England in 1824, he sought to continue his activities as an amateur naturalist but found no suitable venue or collection in which to pursue his interests. He therefore organized the Zoological Society of London for the purpose of forming a general zoological collection and to introduce and domesticate new breeds and varieties of animals.

The Zoological Society of London was chartered in 1826 with Sir Stamford as president and many outstanding scientists as members. Regular meetings reported the latest zoological findings, discoveries, and acquisitions, and the society inaugurated two periodicals, the *Proceedings* in 1833 and the *Transactions* in 1835. In order to provide more detailed descriptions, the society began publishing accompanying hand-colored lithographic illustrations in 1848.



*An 1890 hand-colored lithograph of Euchoreutes naso, a long-eared jerboa, by Joseph Smit*

This exhibition offers a brief history of the founding and organization of the Zoological Society and biographical sketches and portraits of the scientific and artistic luminaries associated with it. Such eminent scientists as Sir Humphry Davy, Thomas Horsfield, and Sir Richard Owen presented reports at

the society's scientific meetings. A selection of zoological illustrations by such notable artists as Joseph Wolf, John Gould, Joseph Smit, and Edward Lear will be on view.

The Library Gallery is located on the fourth floor and is open during Monday through Friday, from 10:00 a.m. until 5:00 p.m.

## A Call to Teach

Each year thousands of schoolchildren visit the Museum. We need you as a teaching volunteer to answer children's questions and add to their sense of wonder about the world. Teaching volunteers work with classes on

school day mornings. Previous teaching experience is not required; we will train you. The next teaching volunteer training program starts this fall.

Call (212) 769-5566 for an application.

## From the Volunteer Department

### **A Planet-Walk through the Solar System: The Earth as a Peppercorn**

It's difficult to picture the dimensions of the solar system — the planets are relatively small and distances between them almost absurdly great. For a model whose scale is true to size and distance, it's necessary to step outside.

A 1,000-yard model of the solar system, the planet-walk was devised in 1969 by astronomer and teacher Guy Ottewill. The walk begins on the Planetarium's front steps at 81st Street, where volunteer tour leader Robert Campanile will take participants on a journey of discovery that covers the universe.

The walk will take place at 1:00 p.m. on Sunday, July 16. For reservations and further

information about this free tour, call the Volunteer Office at (212) 769-5566.

### **White Days, White Nights**

Remote, desolate, forbidding — the poles were one of earth's last frontiers. Today they still exert a powerful hold on the imagination. These guided tours at the Museum will examine the regions' land and the animals as well as the people who explored, conquered, and banded together to protect the polar regions.

Tours will take place on Saturday, July 29, and Saturday, August 5, at 4:00 p.m. Tour guides are Robert Campanile and Phil Sollecito. No registration is necessary; meet at the information desk in the second-floor Rotunda.

## Members' Birthday Parties at the Museum

Your child can play pin the tail on the *Stegosaurus*, make a "fossil" to take home, and enjoy the happiest of birthdays among the world's biggest and best dinosaurs. The dinosaur party, like all the Museum birthday parties, combines a tour of the exhibition halls with games and crafts activities.

Other theme parties for Members between the ages of 5 and 10 focus on fossil mammals, African mammals, reptiles and amphibians, ocean dwellers, and Native Americans.

The group should be no

fewer than 10 and no more than 20. The fee is \$300 plus \$15 per child and covers all materials and the services of a Museum party coordinator. The coordinator will help you plan a party that suits your child's tastes and will handle everything from candles to party favors. All you need to do is bring the cake and help escort the guests. The parties, which are two hours long, are available only to Members at the Contributor (\$100) and higher levels.




For more information about the children's birthday parties call (212) 769-5542.


The Membership Office would like to thank the following young Members who celebrated their birthdays here recently: Sarah Taub, Alexander Katz, Willie Herbst, Alessandra Moss, Tyler Gould, and Peter Ashman.







Sun	Mon	Tues	Wed	Thur	Fri	Sat
<b>July 1995</b>						<b>1</b>
<b>American Museum of Natural History</b>						
<b>2</b>	<b>3</b>	<b>4</b> Independence Day. The Museum is open.	<b>5</b>	<b>6</b> 7:00 p.m. <i>The Fossil Trail</i> . Members' evening program. Kaufmann Theater. \$6 for Members, \$9 for non-Members. Page 2	<b>7</b>	
<b>9</b>	<b>10</b>			<b>13</b> 7:00 p.m. <i>Spell of the Tiger</i> . Members' evening program. Kaufmann Theater. \$8 for Members, \$12 for non-Members. Page 2	<b>14</b> 6:30 p.m. <i>Journey to the Center of the Earth</i> . Members' guided Museum tour. Free, but reservations are required. Page 2.  <i>Flora Portrayed</i> opens in Gallery 77. Page 4	<b>15</b> 11:00 a.m.-2:00 p.m. <i>The Genius and Elegance of Gramercy Park</i> . Members' walking tour. \$25, and open only to Participating and Higher Members. Tickets required. Page 5
<b>16</b> 1:00 p.m. <i>A Planet Walk through the Solar System. The Earth as a Peppercorn</i> . Free, but reservations are required. Page 6	<b>17</b>	<b>18</b> Noon-2:30 p.m. and 4:00-6:30 p.m. <i>Brooklyn and the Heights</i> . Members' walking tour. Tickets required. Page 1.  7:30 p.m. Linnaean Society. Leonhardt People Center. Free	<b>19</b>	<b>20</b> 8:30 a.m.-5:30 p.m. <i>How Water Works</i> . Members' day trip. \$50, and open only to Participating and Higher Members. Tickets required. Page 5	<b>21</b>	<b>22</b> 10:00 a.m.-1:00 p.m. <i>Dinosaurs in Relief</i> . Members' fossil casting workshop. \$50, and open only to Participating and Higher Members. Tickets required. Page 2
<b>23</b>	<b>24</b>	<b>25</b> 7:30 a.m.-7:30 p.m. <i>Members' Day Trip to a Pennsylvania Coal Mine</i> . \$65, and open only to Participating and Higher Members. Tickets required. Page 5	<b>26</b>	<b>27</b>		
<b>30</b>	<b>31</b>	<b>29</b> 4:00 p.m. <i>White Days, White Nights</i> . Guided Museum tour. Free. Page 6.				

Sun	Mon	Tues	Wed	Thur	Fri	Sat
August 1995		1	2	311:00 a.m.- 2:00 p.m. Members Tour of the Brooklyn Botanic Garden. \$25, and open only to Participating and Higher Members. Tickets required. Page 1.	4	54:00 p.m. White Days, White Nights. Guided Museum tour. Free. Page 6.
6	710:30 a.m.-noon. Long In the Tooth. Summer workshop for young Members. \$18, and open only to Participating and Higher Members. Tickets required. Page 2.	810:30 a.m.-noon. Frits and Bills, Horns and Plates. Summer workshop for young Mem- bers. \$18, and open only to Participating and Higher Members. Tickets required. Page 2.	910:30 a.m.-noon. But Before There Were Dinosaurs. Summer workshop for young Mem- bers. \$18, and open only to Participating and Higher Members. Tickets required. Page 2.	1010:30 a.m.- noon. What's the Point? Summer workshop for young Members. \$18, and open only to Particip- ating and Higher Mem- bers. Tickets required. Page 2.	1110:30 a.m.- noon. Snakes Alive! Summer workshop for young Members. \$18, and open only to Particip- ating and Higher Mem- bers. Tickets required. Page 2.	12
13	14	154:00-5:30 p.m. and 6:00-7:30 p.m. Before and After 1624: The Dutch in New York. Members' walking tour. Tickets required. Page 1.  7:30 p.m. Linnaean Society. Leonhardt People Center. Free	16	178:30 a.m.-5:00 p.m. The Jacques Marchais Museum of Tibetan Art and the Richmondtown Restora- tion Historical Village. Members' day trip. \$50, and open only to Particip- ating and Higher Members. Tickets required. Page 1.	186:30 p.m. The Equator. Members' guided Museum tour. Free, but reservations are re- quired. Page 2.	19
<div>New Parking Policy</div> <p>As of July 1, parking will no longer be complimentary for people attending evening programs. For information about parking rates, call (212) 769-5238.</p> <p>The parking lot is open every day from 7:00 a.m. till 11:30 p.m. The parking lot has a capacity of 100 vehicles and is opened on a first-come, first-served basis.</p> <p>Call the Membership Office at (212) 769-5606 for information about alternative parking.</p>		224:00 and 6:00 p.m. Foley Square: An Urban Cen- ter. Members' walking tour. \$20, and open only to Participating and Higher Members. Tickets required Page 3	234:00 and 6:00 p.m. Northern Central Park: An Altered Landscape. Members' walking tour. \$20, and open only to Participating and Higher Members. Tickets required. Page 3.	244:00 and 6:00 p.m. Inwood Hill Park. Nature at Its Best. Members' walking tour. \$20, and open only to Participating and Higher Members. Tickets required. Page 3.	25	
		29	301:00-4:00 p.m. Clearwater Sail. Members' environmental excursion. \$50, and open only to Participating and Higher Members. Tickets required. Page 3.	31		

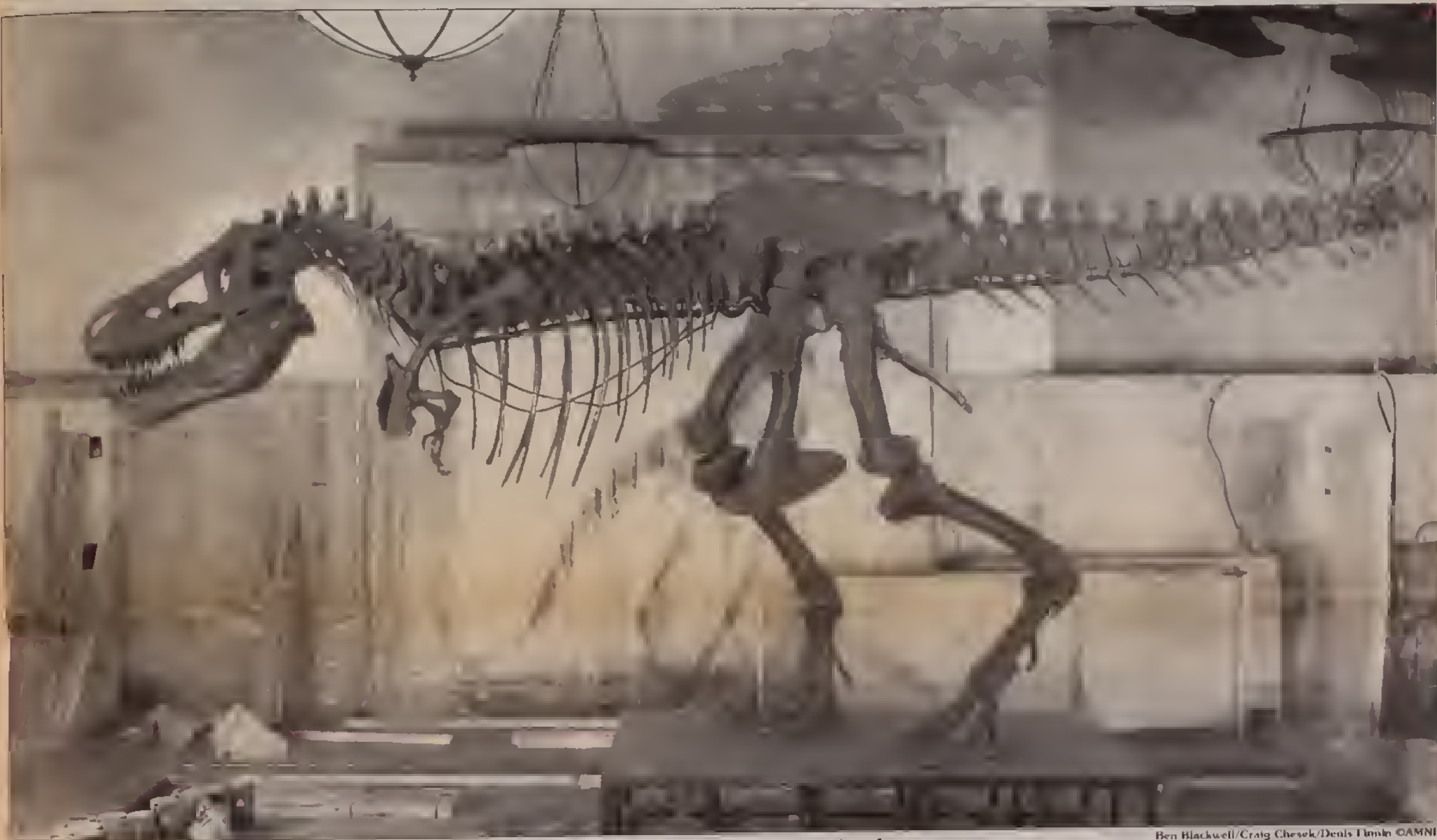
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# ROTUNDA

For Participating and Higher Members of the American Museum of Natural History

Vol. 20, No. 8 September 1995



*Tyrannosaurus rex* amid construction last year

Ben Blackwell/Craig Chesok/Denis Timin ©AMNH

## Renovating the Dinosaur Halls

Friday, September 29

7:00 p.m.

Kaufmann Theater

\$6 for Members, \$9 for non-Members

How do you take a *T. rex* apart and put it back together? Very, very carefully! Phil Fraley of the Department of Vertebrate Paleontology will talk with Members about the awesome task of disassembling the dinosaur king and other exhibits and putting the ancient bones back together.

It's been 100 years since the Museum opened the first of its fossil halls. The first hall devoted exclusively to dinosaurs opened in 1927, an additional hall premiered in 1939, and both halls were updated and remodeled during the 1950s. These halls have been among the most popular

and famous of the institution's attractions for generations, and in June of this year the Museum unveiled the new dinosaur halls, which have been completely reorganized, reinstalled, and spectacularly renovated.

Fraley, who is a coordinator of mounting and specimen restoration,

will use slides to illustrate the rebuilding (or disarticulation) and remounting of the dinosaur specimens. He'll discuss how fittings were reproduced to maintain the integrity of the original mounts and how the new armature for *T. rex* was fabricated. Use the coupon on page 3 to register.

## Mead Festival 1995

*Complaints of a Dutiful Daughter* is among the features of the 1995 Margaret Mead Film and Video Festival. The festival will take place October 18-23; a complete schedule of films appears on pages 7-9.



## Lecture Series

This watercolor-on-vellum illustration of a yellow lady slipper is on display in the current Gallery 77 exhibition *Orchids*. The exhibition is the focus of the lecture series *Orchids: A Botanical History*. Descriptions of these lectures and others appear on pages 10-12.





## The Wolf: Real or Imagined?

Thursday, October 12  
Children (ages 6 and older): 4:00 p.m.  
\$6 for Members, \$9 for non-Members  
Adults: 7:00 p.m.  
\$9 for Members, \$15 for non-Members  
Kaufmann Theater



Meet a living representative of North America's most fascinating predatory species at a Members' program that combines fact and fiction.

Wildlife biologist Patricia Tucker will offer a glimpse into the secret lives of wolves, and documentary filmmaker Bruce Weide will tell stories of

wolves from myth and folklore. Then the real stars of the show will take center stage: Koani, a 100-pound gray wolf from Montana, and Indy, her dog companion.

Koani was born in 1991 to captive parents at a private wolf refuge. She was raised and trained by Tucker and Weide as an ambassador wolf, an animal teacher that educates the public about wolves. As an ambassador wolf Koani represents Wild Sentry, a nonprofit organization that blends science and the humanities to entertain and inform. Wild Sentry's programs emphasize the wolf as a symbol of wildness and stress the inappropriateness of wolves as pets. Wild Sentry and Koani present about 150 programs each year to over 20,000 people.

Koani and friends will appear at two programs, a 4:00 p.m. program for children and a 7:00 p.m. show for adults. The children's show is 60 minutes long, and the adults' program is 90 minutes. Use the September Members' programs coupon on page 3 to register.

## Ancestral Passions

*The Leakey Family and the Quest for Humankind's Beginnings*

Thursday, September 7  
7:00 p.m.  
Kaufmann Theater  
\$5 for Members,  
\$8 for non-Members



Because their discoveries laid the foundations for much of what we know about human origins, the Leakeys — Louis, Mary, and Richard — are renowned as the first family of anthropology. Each of the family made key fossil discoveries; Louis, in particular, laid the theoretical groundwork for the science of paleoanthropology by arguing that human life did not originate on the Eurasian continent tens of thousands of years ago but likely evolved in Africa millions of years ago.

Members can hear about this fascinating family and their work at a presentation by Virginia Morell, who has written the family's first full biography, *Ancestral Passions* (Simon and Schuster, 1995). She'll discuss the Leakeys' many significant finds as they pushed back the scope of human ancestry and

articulated our relationship to the other primates, especially early hominids. Morell will talk about the jealousies between these three forceful figures as well as their rivalries with other scientists. She'll also describe how the Leakeys fostered the work of other researchers, including the pioneering studies of Louis's most famous protégées, Jane Goodall, Birute Galdikas, and Dian Fossey.

A science writer whose work has appeared in *Discover*, *Science*, *The New York Times Magazine*, and other publications, Morell has lived in Ethiopia and Kenya and joined the Leakeys on two of their expeditions to West Turkana. She'll sign copies of *Ancestral Passions*, which will be available for purchase after the program. Call (212) 769-5606 for ticket availability.

## Before Paleontology: A Natural History of the Griffin

Thursday, October 26  
7:00 p.m.  
Kaufmann Theater  
\$7 for Members,  
\$10 for non-Members



In the seventh century BC the ancient Greeks began to trade with the Scythian nomads who prospected for gold in the vast deserts of Central Asia. The nomads regaled the Greeks with tales of griffins — fierce and agile four-legged predators with wicked beaks that inhabited the remote wilderness of Far Scythia. These monsters guarded gold, defended their hatchlings, and hunted in packs for large prey. The griffin became a favorite motif for writers, vase painters, sculptors, and other artists of classical antiquity.

At the Members' program *Before Paleontology: A Natural History of the Griffin*, folklorist Adrienne Mayor will discuss the possibility that the myth of the griffin arose from the earliest recorded attempts to imagine the appearance

and habits of the dinosaur. Ancient descriptions and recent paleontological discoveries suggest that stories of griffins were inspired by rich fossil remains of *Protoceratops* and other heaked dinosaurs found in Cretaceous sediments along the old caravan routes. Remarkably, the ancient "reconstruction" of the griffin anticipated some of the most modern theories about dinosaur behavior.

Mayor is an expert on ancient Greek and Roman legends related to natural history, and she has written numerous articles that have appeared in *Archaeology* magazine, *Journal of American Folklore*, *Cryptozoology*, *Journal of Folklore Research*, and other publications.

Use the coupon on page 3 to register.

## Members' Grandparents Day Workshop The Experimental Orchestra

Sunday, September 17  
11:00 a.m., 1:00 and 2:30 p.m.  
\$12 per child (grandparent is free),  
and open only to Participating and  
Higher Members, ages 5 and older

Master trash-basher Mr. B. (alias John Bertles) will help Members celebrate Grandparents Day at a workshop in which participants will make musical instruments from recycled junk.

Participants will begin by sampling a variety of instruments that were handmade by Bertles, who will talk about how these instruments work. Then grandparents and chil-

dren will work together to make African thumb pianos. They'll use wood, hairpins, and staples to fashion these pleasingly portable instruments and learn how to compose simple but fun musical pieces to play on their new creations.

Use the coupon on page 5 to register, and please note that tickets are available only by mail.

## Dead Men Do Tell Tales

Thursday, October 5  
7:00 p.m.  
Kaufmann Theater  
\$5 for Members, \$8 for non-Members

Forensic scientist William Maples has an unusual gift — from a single bone, he can reconstruct not only the possessor's identity but also the manner of his or her death. Maples has solved many ancient and modern mysteries surrounding the dead; some of his more famous cases include laying to rest claims that Zachary Taylor was murdered, incriminating the Bolshevik assassins of the Russian czar Nicholas II, and collecting evidence from the victims of a serial murderer who preyed on college students in Gainesville, Florida.

Maples will talk with Members about the ways in which forensic anthropologists interpret what he calls the communication of the dead. His postmortem examination

considers the form of marks on bones, fractures, cuts, indicators of age and sex, and a vast array of other information. In an illustrated lecture, Maples will explain the role of the forensic anthropologist and discuss some of his more interesting and unusual cases, including the trauma analysis of the skeleton of Don Francisco Pizarro, the conqueror of Peru, who was killed by sword-wielding assailants in 1541, and the examination of Joseph Merrick (the Elephant Man), Medgar Evers, Congressman Mickey Leland, and others.

Copies of Maples' book, *Dead Men Do Tell Tales* (Doubleday, 1994), will be available for purchase at the program. Use the coupon on page 3 to register.

## ROTUNDA

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## Young Members' Build-and-Fly a Model Airplane Workshop

### Pteranodon Squadron

Thursday, September 14  
5:00-8:00 p.m.  
\$20, and open only to  
Participating and Higher Members  
Ages 11-14



Flying aces of the future can get together at the Museum to build their own model airplanes and take them on a spin around the Hall of Ocean Life.

Instructor Don Ross introduces kids to the imaginative fun of modeling with a 30-minute flying demonstration of models, followed by an hour of model building and test flights. For the final hour of the workshop, participants will form squads for a contest in which each pilot will try to make a perfect flight around the hall.

Use the coupon on page 5 to register, and please note that tickets are available only by mail.

## Whale of a Day!

Saturday, September 23  
\$18, and open only to Participating and Higher Members  
Ages 4 and older

A wonderful day amid the whales is in store for Members this month, featuring a fast-paced, fun-filled program, a demonstration with slides and specimens, and a crafts workshop.

At 11:30 a.m. and 1:30 p.m. Ozzie Tollefson will present *Whales, Giants of the Ocean*. The fun begins with a puppet show starring the sperm whale and the blue whale and introducing some new terms: flipper, flukes, baleen, and krill. The puppets explain all about whales' physiology, feeding, communication, and their endangered status.

Ozzie will use creative dramatics to explore the history of whaling (nowadays, he explains, the practice of commercial whaling is condemned), and the show concludes with a giant-screen slide presentation that takes viewers to the New Bedford Whaling Museum, the Mystic Marinelife Aquarium, and Cape Cod for an afternoon of whale watching.

Before and after showtimes for *Whales, Giants of the Ocean*, Members can learn fascinating facts about whales from Clare Fleming, a scientific assistant in the Department of Mammalogy, who

will present a slide-lecture. She'll also display specimens from the Museum's collections. In addition, participants can make a take-home souvenir at a crafts program hosted by June Myles. The lecture and the workshop will take place at 10:30 a.m. and 12:30 and 2:30 p.m.

Use the coupon on page 5 to register for *Whale of a Day*, and please note that tickets are available only by mail. Members wishing to attend only *Whales, Giants of the Ocean* can use the coupon at right; tickets are \$6 for Members and \$9 for non-Members.

## Art of the Diorama



In this 1941 photo from the Museum's collection, Belmore Brown points the background for the Alaskan bear group in the Hall of North American Mammals. On Tuesday, October 17, Willard Whitson of the Exhibition Department will talk with Members about the development and history of the Museum's timeless dioramas. The program will take place at 7:00 p.m. in the Kaufmann Theater. Use the coupon at right to order tickets, which are \$6 for Members and \$9 for non-Members.

## September Members' Programs Coupon

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Daytime telephone: \_\_\_\_\_

Membership category: \_\_\_\_\_

Total amount enclosed: \_\_\_\_\_

Please make check (if applicable) payable to the American Museum of Natural History and mail with a **self-addressed, stamped envelope** to: September Members' Programs, Membership Office, American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192. **Telephone reservations are not accepted. No refunds or exchanges.**

**Unless otherwise indicated, no more than eight tickets may be ordered for a program. Participating Members are entitled to four tickets per program at the Members' price, Higher Members are entitled to six tickets, and Associate Members are entitled to one ticket.**

### History of the NYC Water Supply

Wednesday, September 13, 7:00 p.m.  
Number of Members' tickets at \$6: \_\_\_\_\_  
Number of additional tickets at \$9: \_\_\_\_\_  
Total amount enclosed for program: \_\_\_\_\_

### Harlem River through the Ages

Wednesday, September 20, 7:00 p.m.  
Number of Members' tickets at \$6: \_\_\_\_\_  
Number of additional tickets at \$9: \_\_\_\_\_  
Total amount enclosed for program: \_\_\_\_\_

### Whales, Giants of the Ocean

Saturday, September 23. Please indicate a first and second choice.

\_\_\_\_\_ 11:30 a.m. \_\_\_\_\_ 1:30 p.m.  
Number of Members' tickets at \$6: \_\_\_\_\_  
Number of additional tickets at \$9: \_\_\_\_\_  
Total amount enclosed for program: \_\_\_\_\_

### Renovating the Dinosaur Halls

Friday, September 29, 7:00 p.m.  
Number of Members' tickets at \$6: \_\_\_\_\_  
Number of additional tickets at \$9: \_\_\_\_\_  
Total amount enclosed for program: \_\_\_\_\_

### Dead Men Do Tell Tales

Thursday, October 5, 7:00 p.m.  
Number of Members' tickets at \$5: \_\_\_\_\_  
Number of additional tickets at \$8: \_\_\_\_\_  
Total amount enclosed for program: \_\_\_\_\_

### The Wolf: Real or Imagined? Thursday, October 12.

Children's show: Number of Members' tickets at \$6: \_\_\_\_\_  
Number of additional tickets at \$9: \_\_\_\_\_  
Total amount enclosed for program: \_\_\_\_\_  
Adults' show: Number of Members' tickets at \$9: \_\_\_\_\_  
Number of additional tickets at \$15: \_\_\_\_\_  
Total amount enclosed for program: \_\_\_\_\_

### Art of the Diorama

Tuesday, October 17, 7:00 p.m.  
Number of Members' tickets at \$6: \_\_\_\_\_  
Number of additional tickets at \$9: \_\_\_\_\_  
Total amount enclosed for program: \_\_\_\_\_

### Before Paleontology: A Natural History of the Griffin

Thursday, October 26, 7:00 p.m.  
Number of Members' tickets at \$7: \_\_\_\_\_  
Number of additional tickets at \$10: \_\_\_\_\_  
Total amount enclosed for program: \_\_\_\_\_

### Ghost Stories. Friday, October 27.

Children's show: Number of Members' tickets at \$6: \_\_\_\_\_  
Number of additional tickets at \$9: \_\_\_\_\_  
Total amount enclosed for program: \_\_\_\_\_  
Adults' show: Number of Members' tickets at \$8: \_\_\_\_\_  
Number of additional tickets at \$12: \_\_\_\_\_  
Total amount enclosed for program: \_\_\_\_\_

### Mischief Night: Racketship X-M

Monday, October 30, 5:00 p.m.  
Number of free Members' tickets  
(no more than 2, please): \_\_\_\_\_

**NOTE: Orders received less than ten days before show dates will be held for pick-up at the door on the day of the program if tickets are still available. If an event is sold out, you will be advised in writing or by phone and your check will be returned.**





Illustration of an oviraptor and nest by artist Gary Staab for the June 1995 issue of Natural History Magazine

## Set Aside a Nest Egg for Science and Conservation...

### ... And Provide for Your Own Retirement.

Through a gift to the American Museum of Natural History that provides lifetime income, you promote preservation and extend understanding of the natural world for generations to come and, at the same time, provide for your own retirement. With this type of gift, you can:

- receive income for life, for yourself and/or a loved one;
- claim an immediate income tax deduction;
- avoid capital gains tax when low-yield, highly appreciated stocks are sold to re-invest for higher income;
- reduce the cost — through the combined benefits of an income stream and an immediate income tax deduction — of a gift important to the Museum's future.

For more information, please call toll-free 1 (800) 453-5734 or complete and return this confidential reply form to Jane C. Palmer, Director of Planned Giving, Office of Development, American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192.

Please send me information on gifts that provide lifetime income:

Name: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
 Phone (home): \_\_\_\_\_ (office): \_\_\_\_\_  
 Comments: \_\_\_\_\_

*Your reply is confidential and implies no obligation.*

9/95

## Members' Birthday Parties at the Museum

Your child can play pin the tail on the *Stegosaurus*, make a "fossil" to take home, and enjoy the happiest of birthdays among the world's biggest and best dinosaurs. The dinosaur party, like all Museum birthday parties, combines a tour of the exhibition halls with games and crafts activities.

Other theme parties for

Members between the ages of 5 and 10 focus on fossil mammals, African mammals, ocean dwellers, and Native Americans.

The group should be no fewer than 10 and no more than 20. The fee is \$300 plus \$15 per child and covers all materials and the services of a Museum party coordinator. The coordinator will help you

plan a party that suits your child's tastes and will handle everything from candles to party favors. All you need to do is bring the cake and help escort the guests. The parties, which are two hours long, are available only to Members at the Contributor (\$100) and higher levels.

For more information call (212) 769-5542.

The Membership Office would like to thank the following young Members who celebrated their birthdays here recently: Tara Walton, Jun Wan Tong, Alvin Edersheim, Cristina de Zulueta, Anelle Darr, and Sarah Karon.

## Members' Guided Tours

Fiction, folklore, and fact are interwoven in a fascinating series of Museum tours. The following special tours will be conducted by Volunteer Highlights Tour guide Robert Campanile. Use the coupon on page 5 to register, and please note that tickets are limited to 2 per request.

**King of the Wild Frontier.** Friday, September 15, 6:30 p.m. Explore the life and times of an American folk hero —

Davy Crockett. Strange and interesting folklore about the wildlife of Davy's times will also be related. (Sold out from previous issue.)

**Friday the 13th Tour.** Friday, October 13, 6:30 p.m. Many superstitions have arisen from attempts to explain natural phenomena. What better night than Friday the 13th to seek the roots of superstitions, and what better place than the Museum to find

them? Don't forget your rabbit's foot!

**The Telltale Tour: A Night of Edgar Allan Poe.** Friday, October 20, 6:00 p.m. Do you dare hear mysterious tales in the evening in our dimly lit halls? Do you dare to feel the wind suddenly chill you to the bone when there is no wind? Those who delight in sharing such tales can quench their thirst with a night of Edgar Allan Poe.

## Seniors:

### September Is Your Month at the Museum

Now is the time to take advantage of programs and discounts designed especially for you throughout the month of September

- Free Walking Tours
- Education Programs
- Discounted Admissions
- Ten percent off in Shops and Restaurants
- Group Tours

For more information stop by any of the Museum's information desks or call (212) 769-5350. Valid ID is required.

## The Coelacanth Saga

Wednesday, October 25  
 7:00 p.m.

Kaufmann Theater

\$8 for Members, \$10 for non-Members

Join James W. Atz, curator emeritus in the Department of Ichthyology, to hear the story of the coelacanth, the most famous fish in the collections of the American Museum — the zoological discovery of the century and the darling of monster lovers.

Caught in the Indian Ocean off South Africa in 1938, this five-foot-long, steel-blue snapping fish turned out to be a "living fossil" — a member of a group thought to have become extinct 70 million years ago.

For more than a decade scientists searched in vain until they finally caught another one — in the Comoro Islands between Madagascar and Mozambique. Only about 200 coelacanths have been caught since, and the American Museum received the first

specimen in the New World. Atz will explain how one lucky circumstance after another led to the discovery of this remarkable creature and how the coelacanth became the center of an evolutionary controversy.

To order tickets send your check payable to Friends of Fishes, AMNH, and a self-addressed, stamped envelope to: *Coelacanth Saga*, Department of Ichthyology, American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192. Be sure to include a separate sheet of paper on which you've indicated your name, address, daytime telephone number, number of tickets, and amount of the check. Call (212) 289-3605 for additional information.

## Dino-Mite Senior Deal!

September is Senior Citizen month!

### 25% Off Food

to all Senior Citizens throughout the month.

Hours: Lunch, Mon.-Fri: 11:30 - 3:30

Saturday and Sunday Brunch: 11:00 - 4:00

Dinner seating, Fri.-Sat: 5:00 - 7:30

For Reservations call 212-874-3436

**25% Off** 25% Discount Off Food for Senior Citizens **25% Off**  
 Coupon cannot be combined with any other offer.  
 Available in Garden Cafe only.  
 Expires September 30, 1995





## Ghost Stories

**Friday, October 27**  
**Kaufmann Theater**  
**Children (ages 5-12): 6:00 p.m.**  
**\$6 for Members, \$9 for non-Members**  
**Adults: 8:00 p.m.**  
**\$8 for Members, \$12 for non-Members**

Storyteller Laura Simms will usher in the Halloween season with ghost and spirit tales from the visible and

invisible worlds. Members of all ages will be enchanted by the traditional stories — full of classic wisdom, eerie sym-

bolism, and humor — that Simms makes relevant to modern culture. She'll also tell of true-life adventures that reveal the magic and mystery of daily existence.

At the children's program, listeners will hear of marvelous monsters, talking ghosts, and the story of the opening of a forbidden door. Simms will also offer special instructions on what to do if you wake up and discover that you have been turned into a witch. Adults will hear a true tale within a ghost tale, a modern myth of a journey to the land of the dead, and an extraordinary tale from Nepal.

This year marks the fourteenth anniversary of Simms' Halloween shows at the Museum. A leader in the revival of storytelling as an art form, Simms has traveled across three continents to hear and tell the world's stories, and her teachers have included Margaret Mead and Joseph Campbell.

Use the coupon on page 3 to register.



## Members' Walking Tour

### Bridging the Harlem River by Foot

**Saturday, September 30**  
**10:00 a.m. and noon**  
**\$20, and open only to Participating and Higher Members**  
**Ages 16 and older**

There is no better way to learn about the Harlem River than to walk along its banks and cross some of its bridges. Join Sidney Horenstein, the Museum's coordinator of

environmental public programs, as he leads a walk through the areas of Spuyten Duyvil, Marble Hill, Kingsbridge, and Inwood. He'll discuss the river's history and

point out items of geologic interest.

Use the coupon on this page to register for the tour, and please note that tickets are available only by mail.

### The Geology and History of the Harlem River through the Ages

**Wednesday, September 20**  
**7:00 p.m.**  
**Kaufmann Theater**  
**\$6 for Members, \$9 for non-Members**

Most of us think of the Harlem River as a waterway spanned by many bridges — which it is. But it's much more than that. The Harlem River has a colorful history that includes an altered course and a filled and

straightened shoreline. Sidney Horenstein, the Museum's coordinator of environmental public programs, will use slides to illustrate his lecture. Horenstein will discuss the river's geologic origins, its first

bridges, and the development of numerous marinas. He'll also describe the effects of industrialization, including the river's railroad history and its current condition.

Use the coupon on page 3 to register.

### History of the New York City Water Supply

**Wednesday, September 13**  
**7:00 p.m.**  
**Kaufmann Theater**  
**\$6 for Members, \$9 for non-Members**

The state of New York City's water supply is a controversial issue these days. Sidney Horenstein, the Museum's coordinator of environmental public programs, will talk about how the system arrived at its present condition.

This slide-lecture will ex-

plore the quest for water, starting with the area's earliest residents on the southern tip of Manhattan Island and culminating in the far-flung system that reaches 120 miles north of the city. The largest municipal water supply system in the United States, New York City's system boasts

many innovations and delivers the best water in the country. Horenstein will discuss how the delivery system was created and built, related political intrigues, and current health issues.

Use the September Members' programs coupon on page 3 to register.

## Members' Mischief Night Private Screening

### Mystery Science Theater 3000: Rocketship X-M

**Monday, October 30**  
**5:00-7:00 p.m.**  
**Kaufmann Theater**  
**Free, and open only to Participating and Higher Members**



Science Fiction Film Series — III  
 presents



The TV wiseguys of *Mystery Science Theater 3000* are coming to the Museum for Mischief Night with a screening of the 1950 film *Rocketship X-M*.

The success of the science-fiction movie *Destination Moon* spawned a wave of imitations, among them *Rocketship X-M*. The plot of this gem concerns an expedition to the moon that goes horribly wrong — an error in the fuel mixture shoots the crew to Mars, where radioactive survivors of a ruined civilization throw rocks at the

astronauts and the film suddenly turns purple. *Rocketship X-M* is 77 minutes long and stars Lloyd Bridges and Hugh O'Brian.

The *Mystery Science Theater* cast will offer acerbic commentary during the movie. Brian Sullivan, production designer at the Hayden Planetarium, will introduce the film and talk about its special effects.

Use the September Members' programs coupon on page 3 to register and please note that tickets are limited to 2 per request.

**Tours, Day Trips, and Workshops.** Use this coupon to register for *Pteranodon Squadron*, *The Experimental Orchestra*, *Whale of a Day!*, and *Bridging the Harlem River by Foot*. This coupon can also be used to order tickets for the free tours *Friday the 13th* and *The Telltale Tour*; please note that only two tickets per tour are available for each request.

Name(s) of program(s): \_\_\_\_\_

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Number of tickets and price (please indicate which program if more than one): \_\_\_\_\_

\_\_\_\_\_  
 Total amount enclosed: \_\_\_\_\_

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Daytime telephone: \_\_\_\_\_

Membership category: \_\_\_\_\_

Please make check payable to the American Museum of Natural History and mail with a **self-addressed, stamped envelope** to: *Tours and Workshops*, Membership Office, American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192.





# AMERICAN MUSEUM OF NATURAL HISTORY

Exploring the world with expert lecturers



## CRUISES

### Arabian Gulf Voyage

December 6-19, 1995

Five thousand years of human history make this one of the most fascinating places in the world. Visit Kuwait, Bahrain, Saudi Arabia, Qatar, United Arab Emirates and Oman. From \$6,950

### Holidays in the Caribbean

December 23-30, 1995

Coral reefs, volcanic islands, exotic wildlife and diverse cultures as we explore Barbados, Grenada, Tobago, Carriacou, St. Vincent and St. Lucia, using a new tall ship as our base. From \$2,295

### Galapagos Islands & Quito

January 12-24, 1996 and February 9-21, 1996

Land tortoises, marine and land iguanas, sea lions and a magnificent array of birdlife continue to make these extraordinary volcanic islands a paradise. From \$4,990

### Antarctica

January 13 - Feb. 2, 1996

A journey to the Antarctic Peninsula—an icy realm of massive icebergs, mountains and ice floes with seals, whales and penguins. Also visit South Georgia, South Orkneys and Falklands. From \$7,185

### Caribbean on the Sea Cloud

February 3-10, 1996

Tropical flora and fauna and volcanic landscapes characterize the lovely islands of Antigua, Carriacou, Tobago, St. Lucia, Dominica and Isles des Saintes aboard the tall ship *Sea Cloud*. From \$3,990

### Papua New Guinea

February 24 - March 12, 1996

A journey to this isolated country for a voyage along the Sepik River and among the islands of the Solomon Sea, areas of spirit houses, exotic wildlife, rain forests, lush islands and diverse cultures. From \$7,990 from Los Angeles

### Baja & the Great Whales

February 29 - March 9, 1996

A cruise during the winter months, when California gray whales migrate to Baja California to breed in the rich waters where sea-birds and other wildlife congregate. From \$2,990

### Islands of the Indian Ocean

March 11-29, 1996

From the legendary island of Zanzibar, we cruise to the islands of the Comoros, Madagascar and the Seychelles, where a remarkable array of rare and unique species live. From \$6,500



American Museum of Natural History  
Discovery Tours

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New York, NY 10024-5192  
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## DISCOVERY TOURS

Since its founding 126 years ago, the American Museum of Natural History has sponsored thousands of expeditions around the globe in an effort to understand the world around us. This tradition of exploration inspires Discovery Tours, the international and domestic study tour program designed to enhance your appreciation and understanding of the natural world.

From the ancient civilizations of Asia to the glorious African savannah, our programs offer

a wonderful range of destinations to choose from. Since our first study tour in 1953, we have taken over 8,000 travelers to the world's most remote regions in the company of distinguished scientists and educators. For 126 years the AMNH has been exploring remote corners of the world. For over 40 years we have been inviting members and friends to share unique adventures with Museum scientists. Join us this year on an adventure of discovery!

### Patagonia to Peru

March 19 - April 4, 1996

A voyage from Puerto Montt, Chile, to Salaverry, Peru, an exquisite coastline of foothills, desert, volcanoes, lush valleys, colonial towns, wildlife sanctuaries, national parks and archeological sites. From \$6,470

### Costa Rica and Panama

March 19-26, 1996

Few places on earth can rival the resplendent beauty and rich biological diversity of Costa Rica and Panama. We visit wildlife reserves and also transit the legendary Panama Canal. From \$2,390

### Amazon Expedition

April 11-21, 1996

We sail upstream from Manaus to the Peruvian city of Iquitos, where the Amazon narrows and the rain forest, filled with birds, reptiles and mammals, encroaches on the river. From \$3,950 from Miami

### British Isles and Ireland

June 7-21, 1996

The waters of Britain and Ireland are speckled with lush green islands. We will explore the rugged outlying islands and follow the verdant coastline to historic cities. From \$4,295

### The Turkish Coast

June 18 - July 1, 1996

Ancient cities dot the rugged southern coast of Turkey. We explore a region steeped in the history of Alexander, the Greeks, Romans, Byzantines and others. From \$4,895

### Alaska's Coastal Wilderness

June 23-30, 1996

A voyage among the pristine islands and intricate coastline of Alaska's magical Inside Passage, renowned for its massive glaciers, fjords, dense forests, mountains, whales, sea lions, bears and birds. From approx. \$2,900

### Bridging the Bering Strait

July 14-30, 1996

A remote and untamed corner of the world, the Bering Sea and the islands scattered throughout it are a paradise for us to search for whales, fur seals and millions of seabirds. From \$4,745

### Northwest Passage

July 20 - August 5, 1996

An expedition along the legendary ice-packed sea route through Canada's pristine northern waters,

where polar bears, whales, sea birds and historic sites associated with exploration abound. \$ TBA

### Expedition to Irian Jaya

September 28 - October 15, 1996

An exploration of the cultures and natural history of the lush, mountainous Asmat area and the Banda Seas of Irian Jaya, New Guinea's western half. \$ TBA

### Ancient Egypt and the Nile

October 14-30, 1996

We explore the extraordinary sites along the Nile River, including the pyramids, Saqqara, Dendera, Luxor, Karnak, the Valley of the Kings, Abu Simbel and more. From approx. \$5,300 from N.Y.

## TRAIN JOURNEYS

### Copper Canyon

March 2-10, 1996

A journey by train from Chihuahua to the Pacific, stopping at several places including Mexico's breathtaking Copper Canyon. Approx. \$2,300

### Beijing to Moscow

June 13-28, 1996

The Trans-Siberian, one of the greatest railways in the world, takes us from Beijing, through the Gobi, the Mongolian steppe, the Siberian taiga and along Lake Baikal to Moscow. From \$7,490

### Rocky Mountain Parks

May 11-19, 1996

A journey in the tradition of the great rail trips of the past focusing on western national parks, including Rocky Mountain, Bryce, Zion, Petrified Forest and the Grand Canyon. \$ TBA

### Southern Africa

September 1996

This program takes us 1,500 miles from Victoria Falls to Cape Town, South Africa, stopping en route at Zambezi, Matapos and Kruger National Parks, historic towns and more. \$10,465 from New York

## LAND TRIPS

### Guatemala and the Maya

January 14-28, 1996

The Maya, the greatest of the ancient Mesoamerican civilizations, are the focus of this itinerary, with visits also to local markets and villages. Approx. \$3,000

### Senegal and Mali

January 24 - Feb. 7, 1996

A survey of West African cultures including the Wolof traders and fishermen of Senegal, the Tuaregs of the southern Sahara and the cliff-dwelling Dogons of Mali. \$7,995 from New York

### Costa Rica

February 3-15, 1996

An exploration of Costa Rica's national parks, focusing on Palo Verde, Carara, Monteverde, Poas Volcano, La Selva and Tortuguero. Approx. \$3,775 from Miami

### India

February 8-27, 1996

Ornate temples, fortresses, camels, elephants, ancient beliefs and colorful traditions highlight our journey to Bombay, Agra, Varanasi, Udaipur, Pahlana, Somnath, Sasan-gir and Ahmedabad. \$ TBA

### Tanzania Migration

January 13-28, 1996

Tanzania's vast plains play host to timeless scenes. We will explore parks in Tanzania including Selous, Ruaha, Ngorongoro Crater and Serengeti. Approx. \$6,500

### Hawaii

March 1996

Visiting Maui and the Big Island, participants will enjoy volcanic scenery, bamboo forests, hidden valleys, whale watching, canoeing and snorkeling, while studying the ancient culture of Hawaii. \$ TBA

### Ancient Kingdoms of the Orient: Burma and Thailand

February 3-15, 1996

We will enjoy the beauty of the region's glorious heritage and explore Bangkok, the remnants of Sukhothai and Ayutthaya, Mandalay, Sagaing and magnificent Pagan by boat. \$ TBA

### Venezuela

March 21-April 3, 1996

A program focusing on the national parks of Venezuela and its remarkable natural features as we explore Henri Pittier National Park, El Frio Biological Station, the Andes and Angel Falls. \$ TBA

### Jordan and Israel

April 1996

An in-depth survey of the extraordinary archeological sites and ancient cities of Israel and Jordan, including Capernaum, Petra and much more. \$ TBA

### Indonesia

April 14 - May 1, 1996

An intimate look at the arts, history, religion and cultural heritage of Sumatra, Java, and Bali, including Lake Toba, an orangutan research center, Prambanan and Borobudur. Approx. \$3,950

### Origins of Man in South Africa and Botswana

May 1996

A survey of famous fossil sites and wildlife areas such as Lapa-lala, Mashatu, Mthetho-musha and the Okavango Delta. \$ TBA

### Cornwall Walk

June 1996

Through daily walks and visits with local experts, participants explore spectacular rocky seaside cliffs, tropical gardens, and pastoral landscapes. \$ TBA

### Native America by DC3

June 6-17, 1996

This unusual program gives us an opportunity to visit with Native Americans on four reservations in Minnesota, South Dakota and Montana. \$ TBA

### Galapagos and Ecuador

July 2-12, 1996

Specially designed for families, this program begins in the Andean highlands of Ecuador and ends with a 7-day cruise among the Galapagos Islands. \$ TBA

### French and Spanish Cave Art

September 1996

The Paleolithic works of art found in the caves of northern Spain and southern France, including the original Lascaux and Altamira, are our focus. \$ TBA

## MORE INFORMATION?

If you are interested in receiving the specific itineraries, costs and general information for any of the trips listed here, please indicate which ones you want and mail this coupon to the Discovery Tours office.

Please send a copy of:

- ☐ General Brochure (a list of all trips, costs and highlights).
- ☐ Specific Brochures (detailed itineraries, cost, etc.) for the following trips:

Send brochures to:

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Street \_\_\_\_\_  
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State/Zip \_\_\_\_\_

Discovery Tours  
American Museum of Natural History  
Central Park West at 79th Street  
New York, NY 10024-5192



# 1995 Margaret Mead Film and Video Festival

**Wednesday, October 18–Monday, October 23**  
**Wednesday, Thursday, Monday: 6:30 p.m.–10:30 p.m.**  
**Friday: 6:15–8:30 p.m.**  
**Saturday: 11:00 a.m.–8:45 p.m.**  
**Sunday: 11:00 a.m.–5:30 p.m.**

For further information call (212) 769-5305



Harold will be shown on October 18 in the Auditorium at 6:30 p.m.  
 (Harold Blair is third from the right)

## Ticket Information

Full-week pass: \$40 for Members and students with ID. \$44 for non-Members. Use the coupon on page 9 to order tickets.

## Become a Friend of the Festival for \$125

Friends receive a festival pass valid for admission to all screenings; a festival T-shirt; an invitation for two to opening-night cocktails, reserved seating for the first screening of each day or evening (if contribution is received by October 16); and recognition in the 1996 festival guide.

Full-week and Friend of Festival passes will be sold on the evenings of Wednesday, October 18, and Thursday, October 19, at the 77th Street entrance.

Daily ticket: \$7 for Members and students with ID, \$8 for non-Members.

Tickets may be purchased on day of films: after 5:00 p.m. on weekdays and after 10:30 a.m. on weekends.

Festival pass, daily ticket, and Friend of Festival pass can be prepurchased with MasterCard or VISA. For ticket charges call (212) 769-5305.

All seating is on a first-come, first-served basis. Passes and daily tickets do not guarantee a seat to the theater or film of your choice. Programs subject to change.

## Symposium Information

The Margaret Mead Film and Video Festival and New York University's Program in Culture and Media and Center for Media, Culture, and History, Department of Anthropology, will present screenings and discussions. All sessions will be held on Thursday and Friday at the Museum. Thursday's theme is *Body Politics: Representing Disability*; Friday's is *The Social Body: Film Collectives and Alternative Media*. Seating is limited. For a complete symposium schedule call (212) 998-8550.

## T-Shirts

Mead Festival T-Shirt: Festival logo with purple or green color. Large size only. \$11.50 for Members, \$13 for non-Members. Use the coupon on page 9 to order T-shirts.

## Wednesday, October 18

### AUDITORIUM

6:30 p.m. *Harold*. The intriguing story of Australian opera star Harold Blair, who has been called the "aboriginal Paul Robeson." Blair's life is chronicled from his birth on a Queensland Reserve in 1924 to his classical training in the Harlem of the 1950s, where he experienced a political awakening. (Repeat: Sunday, Linder)

8:05 p.m. *The State of Weightlessness*. A rare behind-the-scenes look at the Soviet/Russian space program combines interviews with cosmonauts and archival footage.

9:20 p.m. *The Vegetable Mob*. A delightful portrait of the filmmaker's relatives, first-generation Sicilian immigrants to suburban Australia. They carry on the tradition of their rural forefathers—the playful yet serious cultivation of a superior tomato. (Repeat: Monday, Auditorium)

9:30 p.m. *A Forgotten People: The Sakhalin Koreans*.\* The little-known saga of the Koreans of Sakhalin Island, a territory north of Japan off the Siberian coast. Banished to the island by the Japanese during the war and forced to become conscripted laborers, the Koreans were later deserted by them and suffer discrimination under Soviet rule.

### KAUFMANN

8:00 p.m. *Gene Hunters*.\* The Human Genome Project involves the collection of genetic material from isolated populations around the world to safeguard against genetic extinction. Some people believe the project represents an attempt to achieve human advancement; others decry it as a vestige of colonialism. Geneticists, ethicists, and indigenous activists from both sides are featured. (Repeat: Sunday, Kaufmann)

9:10 p.m. *Voices of Orchid Island*. On a remote island almost 50 miles from Taiwan, the Yami confront tourism and a nuclear waste site imposed by Taiwanese officials. The islanders have adapted to some changes and have resisted others. (Repeat: Saturday, Linder)

### LINDER

8:00 p.m. *The Uprising of '34*. In 1934 millworkers in the southern United States organized forces of nearly half a million to protest inhumane working conditions. More than 50 years later participants and their descendants tell of the strike, which culminated in violence, bloodshed, and murder.

9:50 p.m. *Follow-up: After 61 Years of Silence: Honea Path Remembers*.

### PEOPLE CENTER

*Film Collective: Ateliers Varan*

8:00 p.m. *My Vote is My Secret: South-African Chron-*

*icles 1994*.\* The 1990s witnessed a new South Africa, with full participation by communities and townships in the election process. Three filmmakers document the days leading to the first democratic elections in five different black townships.

10:10 p.m. *Stolat*.\* Papua New Guinea film students look at retirees in France.



Gene Hunters, 8:00 p.m., Kaufmann

\* Indicates a film done by or in collaboration with an anthropologist



## Thursday, October 19

### AUDITORIUM

6:30 p.m. *Harlem Diary*. \* Nine young women and men weave a tale of hope and resilience in America's most famous African-American community.

8:20 p.m. *Their Own Vietnam*. \* Five women veterans of the Vietnam war describe their experiences, which are in contrast to the official Army depictions of Vietnam as an exciting and fun career opportunity for female officers.

9:10 p.m. *Hunting for Wolves*. A former prisoner, who is now a boss of Siberian gold hunters, takes a journey with a friend, one of Russia's most powerful businessmen. The poetry and prophetic words of musician Vladimir Vissotsky serve as the backdrop.

### KAUFMANN

#### Religion Today

6:30 p.m. *Holy Madness*. "Jerusalem Fever" is the bizarre phenomenon whereby visitors to the sacred city are overcome by religious zeal and can experience mental aberrations that lead to hospitalization or imprisonment. Representatives of Christian, Jewish, and Muslim groups discuss the phenomenon with members of the tourist police. (Repeat: Sunday, Linder)

7:45 p.m. *Mundo Milagroso* (Miraculous World). \*

Apparitions of Mary and Jesus have been sighted in a tortilla, a tree, and a Chevy Camaro, and these items are shrines that attract thousands of pilgrims to the Rio Grande Valley of southern Texas. This film examines the impact of these apparitions on the Mexican-American community. (Repeat: Saturday, Linder)

8:30 p.m. *The Trials of Telo Rinpoche*. A young Philadelphian whose parents are Kalmykian refugees is recognized as a reincarnate lama and sent to a South Indian monastery to become a Tibetan Buddhist monk. There the young man is faced with the challenge of rebuilding Buddhism in a newly independent republic and grapples with the temptation to return to Philly and his twenty-something friends. (Repeat: Sunday, Linder)

9:45 p.m. *La Promesa*. \* A church/leprosarium on the outskirts of Havana became a stage for a struggle between religious and political freedom in 1993.

### LINDER

#### Outsiders/Insiders

6:30 p.m. *Struggle and Success*. Many African-American professionals living in Japan have experienced psychic freedom in a country that places all outsiders in a single category: *gaijin* (foreigners).

7:45 p.m. *Something Strong Within*. \* This video brings together footage shot by several Japanese-American internees in US concentration camps during WWII. The film depicts their struggle to overcome betrayal and hardship

and reconstruct a community behind barbed wire.

8:40 p.m. *Struggle and Success*. (Repeat)

9:50 p.m. *Something Strong Within*. (Repeat)

### PEOPLE CENTER

#### Film Collective: Amber Films

6:30 p.m. *The Box*. This animated short expresses the fear, isolation, and alienation of the urban sprawl as seen through the eyes of an elderly woman.

6:50 p.m. *Byker*. The working-class town of Byker in northeastern England was transformed by urban development from the 1960s through the 1980s. This film, which was shot over a 12-year period, combines photos, interviews, and dramatic sequences to evoke the community's responses to the changes.

7:40 p.m. *Seacoal*. People in the industrial landscape of Lynemouth, England, make a living from collecting waste coal that washes ashore. For two years the production team lived intermittently among the seacoalers, and their experimental work fuses documentary, improvisation, and drama.

9:20 p.m. *Letters to Katja*. A member of the Amber Collective returns with her adult daughter to her birthplace in Finland. Diary entries, home movies, and contemporary footage reveal her relationship with the country she left behind.



Holy Madness, 6:30 p.m., Kaufmann

## Friday, October 20

### KAUFMANN

6:15 p.m. *God Gave Her a Mercedes-Benz*. \* In Lomé, the market capital of Togo, women earn money and respect through their control of trade. One of them, Mama Benz, sells whimsical African textiles and drives the car after which she is named. (Repeat: Saturday, Kaufmann)

7:20 p.m. *Femmes aux Yeux Ouverts*. African women are organized at the grassroots level to oppose female genital mutilation, educate each other about sexually transmitted diseases, and run successful businesses. The Togolese filmmaker shows the connections between Africa's development and the

progress of its women.

### LINDER

6:15 p.m. *remnants*. A short experimental film exposing the manipulated, fragmented reality of Japanese society and the representation of Japanese people in the American media. (Repeat: Saturday, Linder)

6:40 p.m. *Sugar Slaves*. The Australian sugar cane industry was based on the labor of Pacific Islanders enticed or kidnapped into slavery. This film profiles Pacific Islanders trying to reunite with their families. (Repeat: Saturday, Linder)

7:50 p.m. *Pepper's Pow-Wow*. Kaw/Creek Indian Jim Pepper pioneers the fusion of contemporary jazz and Native American traditional music. (Repeat: Sunday, Linder)

## Saturday, October 21

### KAUFMANN

11:00 a.m. *Bedhaya: Sacred Dances*. \* Retired dancers of the sultan's sacred troupe reflect on changes in the court.

11:35 a.m. *God Gave Her a Mercedes-Benz*. \* (See Friday, Kaufmann)

12:40 p.m. *Hands of History*. Four aboriginal women artists from different nations — Salish, Gitksa, Blood, and Chippewa — create new forms while paying tribute to their traditional cultures.

2:00 p.m. *Iraqi Women: Voices from Exile*. Iraqi women — a doctor, teacher, actress, and students — living in exile in England discuss the effects of Saddam Hussein's regime on their lives.

3:10 p.m. *The Last Colonials*. An assortment of expatriates remain in Zaire, despite its fragile economy, extreme violence, and political uncertainty.

4:40 p.m. *When Billy Broke His Head... and Other Tales of Wonder*. Billy Gollus, an award-winning radio journalist, suffered brain damage in a motor scooter

accident 10 years ago. In this irreverent road movie he meets people with disabilities and observes their strengths and anger in efforts to forge a new civil rights movement.

6:00 p.m. *Twitch and Shout*. Tourette's Syndrome (TS) is a genetic disorder that causes involuntary yelling, obscene vocalizations, and compulsive behavior. Photo-journalist Lowell Handler, who has TS, uses humor and insight to introduce others with TS and how they negotiate a misunderstanding world.

7:20 p.m. *Complaints of a Dutiful Daughter*. This intimate portrait of the filmmaker's mother, who is afflicted with Alzheimer's, approaches the difficulties of memory loss with humor and sensitivity. The filmmaker reveals her relationship with her mother, the mother's attitude toward her daughter's homosexuality, and how they each come to terms with their memories and the future.

### LINDER

11:00 a.m. *My Life as I Live It*. The sequel to *My Survival as an Aboriginal*, a 1978 film by Aboriginal Australian activist and country western singer Essie Coffey,

Coffey, who is popularly known as Bush Queen, portrays the aboriginal community's fight for self-determination.

12:05 p.m. *Ghurbal*. \* A master craftsman in rural Egypt weaves animal skins to create a *ghurbal* that is used to "winnow" new life in *sebou* ceremonies.

12:50 p.m. *Pottery of San Marcos*. (Spanish only) Women potters from Mexico earn extra money by creating beautiful pots.

1:20 p.m. *Tepù*. \* A Huichol shaman journeys with the filmmaker to Mexico City and comments on the future.

2:00 p.m. *remnants*.

(See Friday, Linder)

2:25 p.m. *Voices of Orchid Island*. (See Wednesday, Kaufmann)

4:10 p.m. *The Morehouse Men*. Clandestine initiation ceremonies and a religious controversy are exposed in this chronicle of a year in the life of students at an elite all-black men's college in Atlanta. (Repeat: Sunday, Kaufmann)

5:30 p.m. *Mundo Milagroso*. (See Thursday, Kaufmann)

6:20 p.m. Repeat: *Tepù*

7:15 p.m. *Sugar Slaves*. (See Friday, Linder)

## Sunday, October 22

### KAUFMANN

11:00 a.m. *Dealers among Dealers*. New York City's 47th Street is home to the nation's multimillion-dollar diamond industry, a world based on rituals and customs originating in medieval Europe and derived from Talmudic lessons, where contracts are based on a word and a handshake.

12:35 p.m. *The Morehouse Men*. (See Saturday, Linder)

1:50 p.m. *Breaking Silence: The Story of the Sisters at DeSales Heights*. \* A 150-year-old cloistered monastery in West Virginia is about to close and its 12 surviving sisters, many of them in their eighties and nineties, prepare to face the outside world.

3:10 p.m. *Ben Spock: Baby Doctor*. A fascinating portrait of America's pioneering pediatrician.

4:30 p.m. *Gene Hunters*. (See Wednesday, Kaufmann)

### LINDER

11:00 a.m. *Pepper's Pow-Wow*. (See Friday, Linder)

11:50 a.m. *The Trials of Telo Rinpoche*. (See Thursday, Kaufmann)

12:45 p.m. *Harold*. (See Wednesday, Auditorium)

2:00 p.m. *Holy Madness*. (See Thursday, Kaufmann)

3:15 p.m. *Ghurbal*. \* (See Saturday, Linder)

#### Film Collective: Sankofa

4:00 p.m. *In Between*. A Sri Lankan-born filmmaker explores the shifting issues of cultural identity.

4:55 p.m. *Home Away from Home*. An African woman in London, worried that her family will become too assimilated, builds a traditional mud hut — a project that leads to unexpected results.



**Monday,  
October 23**

## AUDITORIUM

### Closing Night Films

6:30 p.m. *Mother Dao the Turtlelike*. \* This film evokes the trauma of colonialism by repositioning footage from more than 200 silent propaganda films taken by Dutch colonists in Indonesia between 1912 and 1933. Its soundtrack of ancient and modern songs, poetry, and music gives voice to the indigenous communities.

8:40 p.m. *The Vegetable Mob*. (See Wednesday, Auditorium)

9:00 p.m. *A Kiss to this Land* (*Un Beso a esta Tierra*). Elderly Jews from Eastern Europe recall their migration to Mexico in the 1920s.

## KAUFMANN

### Ethnographic Update

6:30 p.m. *A Kalahari Family*. \* (Work in progress) John Marshall has filmed and worked with the Ju/'hoasi of southwest Africa's Kalahari since the 1950s. The film focuses on the dispossession, dependence, and decline of people in the face of development. The screening will feature selected clips and extended discussion with the director.

9:15 p.m. *Rouch in Reverse*. Jean Rouch, the father

of ethnographic cinema and creator of shared anthropology is the focus of an improvisational and playful film.

## LINDER

6:30 p.m. *100 Children Waiting for a Train*. On Saturdays a church is transformed into a film workshop as Chilean children are introduced to artists from Disney to Chaplin and learn to create their own animation.

7:40 p.m. *Kinshasa's Septembre Noir* (*Kinshasa's Black September*). (French only) Youngsters at an animation workshop use paper bags and line drawings to tell the story of the military takeover in their country.

7:50 p.m. *Bichorai*. In 1991 and 1994 a video-maker talked with Burundi street children who reveal their hopes and dreams in a country wracked by war.

9:10 p.m. *Alone Together*. Young people from widely different backgrounds share the pain and frustration of living with HIV.

9:40 p.m. Repeat: *Alone Together*.

## PEOPLE CENTER

### Film Collective: Appalshop

6:30 p.m. *Struggle on*

*Coon Branch Mountain*. (Mimi Pickering. B&W, 1972. 13 min.) Residents of a small West Virginia community fight local government for improvements in roads, schools, and services.

7:00 p.m. *On Our Own Land*. (Anne Johnson. 1988. 29 min.) The conflict between citizens who want to protect their land for future generations and mineral extractors, who are driven solely by profit.

7:45 p.m. *Strangers and Kin: A History of the Hillbilly Image*. (Herb E. Smith. 1984. 58 min.) This film traces the evolution of the hillbilly stereotype — as seen in feature films, musicals, and television portrayals — and examines how certain images are created, reinforced, and used to rationalize exploitation.

9:00 p.m. *Long Journey Home*. (Elizabeth Barret. 1992. 58 min. Video.) A personal tour through Appalachia, focusing on the many ethnic groups that were drawn there by economic opportunity and the hardships that forced them north.

10:15 p.m. *Bluegrass. Blackmarket*. (Hans Luxemburger. 1994. 28 min. Video.) A dismal economy has prompted some eastern Kentuckians to grow marijuana in spite of the efforts of government agencies to eradicate this illegal industry.



*A Kiss to This Land*, 8:50 p.m., Auditorium

**Honorary Chairperson**  
Mary Catherine Bateson  
**Programmers**  
Elaine S. Charnov  
Nathaniel Johnson, Jr.  
**Festival Assistant**  
Sylvia Morales

**Funding**  
The Margaret Mead Film and Video Festival has received generous support from the Natural Heritage Trust and New York State Council on the Arts.

### 1995 Margaret Mead Film and Video Festival

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Daytime telephone: \_\_\_\_\_

Number of tickets (AMNH Member, non-Member, student with ID): \_\_\_\_\_

Please circle one: Festival pass/full week

Daily ticket (indicate day) \_\_\_\_\_ Festival Friend \_\_\_\_\_

T-Shirt (large size only; color): \_\_\_\_\_ green \_\_\_\_\_ purple

Total: \_\_\_\_\_

Please circle one: Check Master Card Visa

Credit card number: \_\_\_\_\_

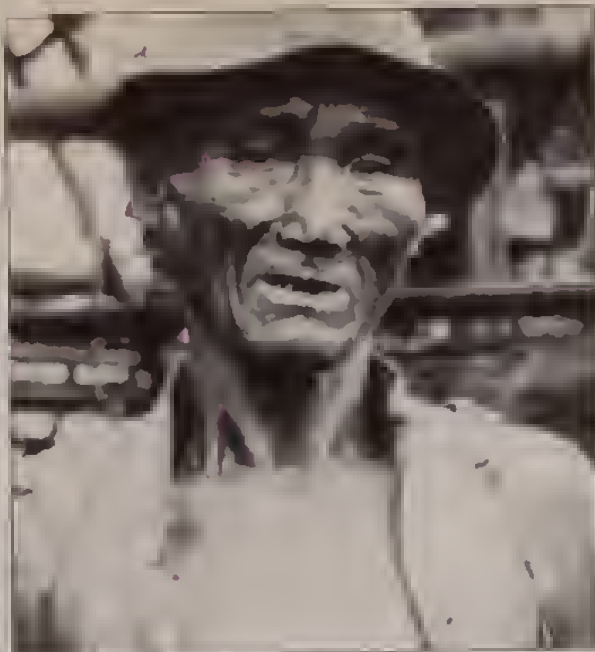
Expiration date: \_\_\_\_\_ Month/Year

\_\_\_\_ Send me a symposium schedule (please check)

Send self-addressed, stamped envelope and this coupon with a check payable to Margaret Mead Film and Video Festival to: Mead Festival, American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192



*Pepper's Pow-Wow*



*Mother Dao the Turtlelike*



*Breaking Silence: The Story of the Sisters at DeSales Heights*



*A Kalahari Family*



The Department of Education Presents the

## Evening Lecture Series

### Volcanoes!

Four Thursdays and two Tuesdays,  
Oct. 26–Nov. 16; 7:00–8:30 p.m.  
\$22.50 for Members, \$25 for non-Members,  
\$20 for students

Volcanic eruptions are among the most dynamic of all geologic processes. There are more than 500 active volcanoes on earth, and their eruptions affect the planet's atmosphere and climate as well as its inhabitants. This program, which is cosponsored by the departments of Earth and Planetary Sciences and Education, will also explore the contributions of volcanoes to the geologic development of other planets such as Mars and Venus.

Oct. 26: *Submarine Volcanoes: An Ancient Process, a New Frontier*. John R. Delaney, professor, School of Oceanography, University of Washington, Seattle.

Nov. 2: *The Impact of Volcanic Eruptions on the Earth's Climate*. Haraldur Sigurdsson, professor, Graduate School of Oceanography, University of Rhode Island, Kingston.

Nov. 9: *Pinatubo! Massive Eruption and Muddy Aftermath, 1991–95*. Christopher G. Newhall, geologist, US Geological Survey, Department of Geological Sciences, University of Washington, Seattle.

Nov. 16: *Volcanism: Lessons from Space and Time*. James W. Head, III, professor, Department of Geological Sciences, Brown University, Providence.

Oct. 31 and Nov. 14: *Volcanoes on Film*. Films about volcanic processes and how they are studied will be shown from 7:00 to 9:00 p.m. on both evenings. Question-and-answer sessions will follow screenings of the films, which feature volcanoes of Hawaii, Mexico, and the Pacific "ring of fire."

### Plants at the Edge of the Sea

Four Mondays, Oct. 16–Nov. 6,  
2:30–4:00 p.m., or  
Four Thursdays, Oct. 26–Nov. 16,  
7:00–8:30 p.m.  
\$22.50 for Members,  
\$25 for non-Members

The seaweeds and flowering plants of the coastal dunes and wetlands stabilize the shore and are a key to marine productivity and biodiversity. William Schiller, lecturer in botany in the Education Department, focuses on identification and ecology of tide-pool algae and the plants of salt meadow, dune, and seaside forest border.

1. *Flowering Plants of Salt Marshes, Dunes, and Rocky Coasts*. The shore above the tide.
2. *Intertidal Seaweeds*. Adaptation to a turbulent environment. Algae and people.
3. *In the Kelp Forest and along the Mangrove Coast*. Contrasts in vegetation below low tide.
4. *In the Maritime Woods*. The web of plant life at the forest edge.

### Avenues to the Past

Four Thursdays, Oct. 5–Nov. 2  
7:30–9:00 p.m.  
\$22.50 for Members,  
\$25 for non-Members

Ethnohistorian Robert S. Grumet and archeologist Joel W. Grossman will examine the ways in which people define time and interpret history. They'll explore the impact of culture, belief, theory, and method on historical interpretation.

Oct. 5: *Oral Traditions*. Grumet will examine the nature and historicity of myths, legends, and epics.

Oct. 12: *Written Records*. Drawing on examples from colonial North America, Grumet will assess the range, utility, and limitations of documents by contrasting sources written at or near the occurrence of an event with commentaries from a later time.

Oct. 26: *Physical Evidence*. Grumet will show how material evidence of the past is collected, curated, and interpreted with a survey of the absolute and relative dating techniques used to determine the age of artifacts.

Nov. 2: *New Directions*. Using examples from

excavations conducted in and around Greater New York, Grossman will discuss the role and implications of applied technology in the identification, definition, and documentation of archeological remains.

### Human Mimicry of Bird Sound

Wednesday, Oct. 25  
7:00–8:30 p.m.  
\$9 for Members,  
\$10 for non-Members

Ornithologist Jeffrey Boswall will demonstrate how humans can reproduce the language of birds, and he'll talk about the variety of reasons to do so, touching on matters of science, art, culture, and entertainment.

Boswall will conduct this unusual lecture with a variety of sound-producing devices and audio recordings. He'll explain how to "talk" to birds — using whistles, pipes, and tape recordings — and how to get them to respond. He'll discuss how musicians imitate avian sounds, describing how English music-hall entertainers blend bird impersonations with elegant prose and the ways in which composers from Beethoven to the Beatles have been inspired by birdsong.

### Orchids: A Botanical History

Tuesdays, Nov. 14 and 21  
7:00–8:30 p.m.  
\$13.50 for Members,  
\$15 for non-Members

Orchids, which make up the largest of plant

families, come in an unusual variety of shapes and have developed many survival strategies. This series is presented in conjunction with the exhibition *Orchids*.

Nov. 14: *North American Orchids*. William Schiller, lecturer in botany in the Education Department, discusses the characteristics and ecology of orchids, focusing on North American species.

Nov. 21: *Tropical Orchids of the Americas*. Keith Lloyd, author and overseer of the New York Botanical Garden's living orchid collection, reviews the tropical American species of orchids — their characteristics, structures, and cultivation.

### Great Diamonds of India

Monday, Oct. 2  
7:00–8:30 p.m.  
\$9 for Members,  
\$10 for non-Members

This program is for those who have a feeling for history, particularly that of great diamonds. These diamonds came from the Golconda region of India, near Delhi, and include the "bad luck" stones, the Hope, and the Koh-i-Noor. Some are held in the Diamond Fund of Russia in the Kremlin; others, the Regent and Sancy, are found in the Louvre. The 1730 sack of Delhi, the nineteenth-century murder of a Russian ambassador in Persia, and the love life of Catherine the Great are fascinating elements of the history of these jewels.

Brigadier Kenneth Mears is a former cavalry officer who served as a director of the British Intelligence Corps and as Deputy Governor of Security at the Tower of London, where his prime responsibility was the safety of the Crown Jewels.



Volcanoes!



## Navajo and Tibetan Wisdom

Monday and Tuesday,  
Oct. 16 and 17  
7:00-8:30 p.m.  
\$13.50 for Members,  
\$15 for non-Members

Navajo Indians of the Colorado Plateau and denizens of the Tibetan Plateau share understandings of their connections to their respective environments and to the even more remote realms of mind. This ancient knowledge is carefully codified and internalized through vivid rituals. Anthropologist Peter Gold has recently written a book on this subject and will augment his presentation with slides and on-location sound recordings.

Oct. 16: *Elemental Connections to the Nature of Things*. Humans are considered by Tibetans and the Navajo as expressions of the unfolding of the universe.

Oct. 17: *The Sacred World Within*. Shared Tibetan and Navajo principles and procedures for developing personal wisdom, wellness, peace, and social harmony.

## Maori Art: Korero Tahito, We All Have Our Legends

Wednesday, Oct. 25  
7:00-8:30 p.m.  
\$9 for Members, \$10 for non-Members

The messages of Maori art are buried deep within abstract patterns, where image and structure unite to promote thoughts that can be read at many levels. Although even a casual look at the surface design can reveal the intricacy, grace, and symmetry of Maori artwork, the more careful viewer is eventually drawn beyond a simple translation of images into more spiritual matters.

John Bevan Ford, one of New Zealand's leading contemporary Maori artists, discusses the ideas and

feelings behind his finely wrought colored ink drawings and sculptures.

## Introduction to Geology

Three Tuesdays and three Thursdays,  
Jan. 16-Feb. 1  
7:00-8:30 p.m.  
\$31.50 for Members,  
\$35 for non-Members

This intensive course introduces the basic aspects of geology, including the movement of the continents, volcanic activity, earthquakes, and mountain building. The changes of land scales through the processes of weathering and erosion will be discussed, along with the constituents of rocks — the basic material of the earth.

Classes will meet twice a week for three weeks and use a textbook that will be available in the Museum Shop. Students who pass the exam will receive a special American Museum certificate.

## Field Trips, Walking Tours, and Workshops

### Human Evolution Workshops

Friday, Oct. 13, 7:00-8:30 p.m., or  
Saturday, Oct. 14, 7:00-8:30 p.m.  
\$40 (no discount for Members)  
Materials included;  
limited to 25 people

When only the bones remain, how much information about an individual can be reconstructed? Jeffrey H. Schwartz, professor of anthropology at the University of Pittsburgh and research associate in the Museum's Department of Anthropology, will present an introductory workshop that examines the conclusions of forensic anthropology.

The workshop will begin with a lecture, and the

second half will be specimen oriented. A geographically diverse sample of skeletal material will be available for firsthand study. A reading list and handouts will be provided upon enrollment and prior to the workshop.

## Animal Drawing

Eight Tuesdays, starting Oct. 10  
7:00-9:00 p.m.  
\$105 (no discount for Members)  
Materials not included;  
limited to 25 people

Join Museum artist Stephen C. Quinn to sketch subjects such as gazelles on the African plains or timber wolves in the snowbound North. After the Museum has closed to the public, students gather to draw animals from the famed dioramas as well as mounted skeletons in the halls of African Mammals, North American Birds and Mammals, Ocean Life, and Fossil Mammals. Individual guidance is given to each participant, whether beginner or experienced artist. Quinn, who is senior assistant manager in the Exhibition Department, will discuss drawing technique, animal anatomy, and the role of the artist at the Museum.

## Fall Botany Walking Tours in Central Park

Saturdays, Sept. 23 or Oct. 7, or  
Wed., Oct. 11  
9:00-11:00 a.m.  
\$9 per walk  
(no discount for Members)  
Limited to 25 people

Participants on this two-hour morning walk in Central Park will observe signs of fall in the flowers and trees. They'll explore Strawberry Fields, Hemshead, and the Shakespeare Garden and watch these areas change with the season. They'll learn about plant identification and ecology from William Schiller, lecturer in botany in the Education Department. Walks will start at 72nd Street and Central Park West.

### 1995 REGISTRATION COUPON

Please make check payable to the American Museum of Natural History and mail with a **self-addressed, stamped envelope** to: *Lecture Series*, Education Dept., American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192.

Please note that credit-card payment is now available and that registration will be delayed if daytime phone number or stamped, self-addressed envelope is not included. For further information call (212) 769-5310.

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Daytime telephone: \_\_\_\_\_

Membership category: \_\_\_\_\_

Course	Day	Hour
_____ No. tickets	_____ Price (each)	_____ Total

Course	Day	Hour
_____ No. tickets	_____ Price (each)	_____ Total

Total amount enclosed: \_\_\_\_\_

Payment. ☐ Check ☐ Money Order  
☐ MC ☐ Visa

Account no.: \_\_\_\_\_

Expiration date: \_\_\_\_\_  
Month/Year



Animal Drawing



Use the coupon on page 11 to register for these programs.

## Fall Bird Walks in Central Park

Tuesdays, Sept. 5– Oct. 31  
7:00–9:00 a.m., or  
Thursdays, Sept. 7– Oct. 26  
9:00–11:00 a.m.  
\$50 for Tuesday series,  
\$44 for Thursday series  
(no discount for Members)

Observe the autumn migration of birds through Central Park with naturalists Stephen C. Quinn (Tuesdays) and Harold Feinberg (Thursdays). Learn how to use field marks, habitat, behavior, and song as aids in bird identification. Participants meet across from the Museum on the northeast corner of Central Park West and 77th Street. Call (212) 769-5310 for availability. Limited to 25 people.

## Cape May Birding Weekend

Fri.–Sun., Oct. 20–22  
\$350 per person, double occupancy  
(no discount for Members)

Join Museum naturalists for a weekend of birding at Cape May, New Jersey, one of the world's bird-watching hot spots. The trip includes naturalist-led walks, informal lectures, a stop at the famed Brigantine National Wildlife Refuge, and two boat excursions to observe seabirds and possibly whales and dolphins.

Fee includes accommodations, food, and transportation. Trip leaders are Brad Bumham, instructor in the Education Department, and naturalist Stephen C. Quinn, an experienced birder. Call (212) 769-5310 for an itinerary. Limited to 45 adults.

## Hudson River Lighthouse Explorations

Saturday, Oct. 14; 8:30 a.m.–5:00 p.m.  
\$50 (no discount for Members)

Visit the Tarrytown Lighthouse with educator Christopher Letts of the Hudson River Foundation. Explore the lighthouse and learn about past and present river navigation, the lives of lighthouse families, and the natural history of estuarine systems.

After the lighthouse visit, participants will investigate problems of river ecology through simulated oil spills, water pollution clean-up activities, and study of riverine organisms. Uta Gore, senior instructor in the Education Department, leads this trip. Bring a box lunch. Limited to 25 people.

## Walking Tour of New York's Chinatown

Saturday, Oct. 28; 10:30 a.m.–1:30 p.m.  
\$20 (no discount for Members)

Investigate the vegetable, meat, noodle, tea, and herb stores of Chinatown with an expert. Karen Kane, senior instructor in the Education Department, has lived and cooked in China and has lectured on herbs and food in Chinese medicine. She will explain the regional cuisines of China and the blend of seasonal, medicinal, and religious beliefs revolving around food. There will be several tasting opportunities during and after the tour. Limited to 25 people.

## Lost Cities, Lost Peoples

Friday, Nov. 3; 7:00–8:30 p.m.  
\$10 (no discount for Members)

"The most beautiful thing we can experience is the mysterious," according to Albert Einstein: "it is the source of all true art and science." Some of science's great mysteries arose from now-vanished civilizations. Museum docent and lecturer Robert Campanile will lead an exploration of halls and exhibits in search of lost cities and peoples. Limited to 25 people.

## Fall 1995 Children's Workshops

These workshops are presented by the Department of Education. Use the coupon on this page to register. Children enrolled in three-hour programs should bring a bag lunch. If you have any questions call (212) 769-5310.

### Call Me Ahnighito

Sunday, Oct. 1  
Ages 7 and 8  
10:30 a.m.–noon

Inspiration can be found anywhere, especially in the halls and displays of a great museum. This workshop teaches young writers how to get ideas from the world around them and how to begin the writing process. Pam Conrad tells how the dinosaurs on the fourth floor inspired her to write the popular book *My Daniel* and how the Museum's meteorite was the source for her newest book, *Call Me Ahnighito*. \$20.

### Beautiful Swimmers

Sunday, October 29  
Ages 8 and 9  
10:30 a.m.–1:30 p.m.

Children learn about saw-fish, sharks, and angelfish and explore fish adaptations through games, fish printing, songs, film, and a visit to the Hall of Ocean Life. Presented by Merryl Kafka, assistant director of education at the New York Aquarium for Wildlife Conservation. \$25.

### Recycling Nature

Two Sundays, October 15 and 22; ages 9 and 10  
10:30–11:30 a.m.

Participants will discover how easy it is to recycle plants to make their own lamps. They'll learn the chemistry and electricity of lamp making as they create

their own blender lampshades and electrify a lamp to take home. Presented by Susan Keeser, children's education programmer at the National Science Foundation. \$30.

### Maya Fun

Sunday, October 15  
Ages 9 and 10  
10:30 a.m.–1:30 p.m.

Maya life in the Yucatan is related through folk tales at this workshop, where kids will make traditional Maya folding books. They will also hear about the drink of Maya kings and celebrate with a piñata. Presented by Judith Dupre, author and curator of cultural events for Native Americans. \$30.

### Animal House

Saturday, November 4  
Ages 8 and 9  
10:30 a.m.–1:30 p.m.

Just like us, animals need the comfort and safety of a home. Children will learn how and where animals build their homes by searching the dioramas for animal homes above and under the ground, in trees, webs, and other unexpected places. Presented by Laura Weinstein and Robert Campanile, Museum tour guides and lecturers. \$25.

### Halloween Surprise

Sunday, October 22  
Ages 9 and 10  
10:30 a.m.–1:30 p.m.

In anticipation of Halloween festivities, children can create their own moving skeleton figures. A trip to the new halls of dinosaurs, Early Fossil Mammals, and Human Biology is included. Presented by Ross Lewis, artist and children's art educator. \$25.

### Human Origins

Two Sundays, October 22 and 29; ages 10–12  
10:30 a.m.–1:30 p.m.

Children use Museum casts

of fossil ancestors to broadly trace our evolutionary lineage and that of other primates. A lab session comparing skeletal material of modern humans and chimpanzees will help illustrate similarities and differences among primates. Presented by Anita Steinhart, doctoral candidate in physical anthropology. \$30.

### A Whale's Tale

Sunday, October 29  
Age 4 (each child must be accompanied by an adult)  
10:30–11:30 a.m.

Children will help tell the tale of a humpback whale's migration from the warm waters of the south to the colder northern seas. Film, song, a take-home activity sheet, and a visit to the Hall of Ocean Life are included. Presented by Dayna Reist, former instructor at the New York Aquarium and specialist in early childhood education. \$20.

### All About Fish

Sunday, November 5  
Age 5 (each child must be accompanied by an adult)  
10:30 a.m.–noon

Children will learn about fish shapes and how fish breathe and swim in a hands-on program that includes making fish prints and visiting the Hall of Ocean Life. Presented by Judith Levy, who has taught at the Carnegie Museum of Art. \$20.

### Storytelling

Sunday, November 5  
Ages 9 and 10  
10:30 a.m.–1:30 p.m.

Children will hear stories in the halls of Asian Peoples, African Peoples, and Native Americans. They'll share family stories that they've prepared at home and create a storyboard. Presented by Marcia Land, director of education at Lincoln Center. \$25.

## Microscopic Adventures

Saturday, November 18  
Ages 8–10  
10:30 a.m.–1:30 p.m.

The miniature world of fish, scales, feathers, fur, crystals, and insects comes to life under the microscope. Participants can bring their own "dust bunnies" or small objects to view under the microscope. Presented by Uta Gore, science instructor in the Education Department. \$25.

## How We Hear and How We See

Sunday, November 19  
Ages 7 and 8  
10:30 a.m.–1:30 p.m.

Exciting experiments focused on vision and hearing are conducted in this workshop, in which children make drums and kaleidoscopes. Presented by Dina Schlesinger, computer science teacher at PS 140. \$25.

## Drawing Fossils

Sunday, November 19  
Age 8  
10:30 a.m.–1:30 p.m.

Children learn the fundamentals of drawing with pen and ink, watercolor techniques, and contour drawing. They'll study basic animal anatomy and sketch in the new dinosaur halls and in Early Fossil Mammals. Presented by Angela Tripi-Weiss, art director at PS 87. \$25.

## DEPARTMENT OF EDUCATION Workshops for Young People

I would like to register for the following workshop(s):

Workshop: \_\_\_\_\_

Workshop: \_\_\_\_\_

Student's last name: \_\_\_\_\_ First: \_\_\_\_\_

Age: \_\_\_\_\_ Grade: \_\_\_\_\_

Parent's last name: \_\_\_\_\_ First: \_\_\_\_\_

Daytime phone (area code): \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Total amount enclosed: \_\_\_\_\_

Method of payment ☐ Check ☐ Visa ☐ MasterCard

Credit card no.: \_\_\_\_\_

Expiration date: Month: \_\_\_\_\_ Year: \_\_\_\_\_  
Register early. Class sizes are limited. Separate check per workshop or course. Please note that due to limited registration discounts are not available for these workshops. Send this coupon with your check or money order payable to the American Museum of Natural History and a **self-addressed, stamped envelope** to: Workshops for Young People, Department of Education, American Museum of Natural History, 79th Street and Central Park West, New York, NY 10024-5192.



## Urban Shores: Jamaica Bay by Land and Sea

Saturday, November 4

Naturalists from the American Museum and the National Park Service's Gateway National Recreation Area will host a walk and cruise of the Jamaica Bay Wildlife Refuge.

Participants will walk along two miles of trails and cruise through the waters of this 10,000-acre urban estuarine system. They'll see migrating coastal birds and hear about Jamaica Bay's history and current issues surrounding this island-dotted lagoon. The walks are guided and the cruise is narrated.

Ticket prices include lunch, which will be catered by Abbracciamento's-on-the-Pier. Members' tickets are \$50 for those who travel independently to the refuge and \$65 for those who opt for bus transportation from the Museum. Non-Members' tickets

are \$60 without bus fare and \$75 with bus fare. The bus leaves the Museum at 9:00 a.m. and the program starts at the refuge at 10:00 a.m., rain or shine. Traveling instructions will be sent with tickets.

To order tickets send your check payable to the American Museum of Natural History and a self-addressed, stamped envelope to: *Urban Shores*, Environmental Programs, American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192. Be sure to include a separate sheet of paper on which you've indicated your name, address, daytime telephone number, number of tickets, and amount of the check. Call (212) 769-5750 for further information.

## Coming Soon!

The Museum is organizing a Centralized Reservations and Ticketing Service. With one phone call to this new office you'll be able to reserve and purchase tickets for all Museum and Planetarium

events. Visits to the Museum will be easier too, since you'll be able to purchase tickets for all events at any entrance. Stay tuned for more information on how to use this new service.

## Is New York City's Water Safe to Drink?

Wednesday, September 27  
6:30 p.m.

Kaufmann Theater  
\$5 for Members, \$8 for non-Members

Because of questions about the quality of the city's drinking water, the City Club of New York invited a panel of independent experts to compile a status report on the safety of tap water. After months of research, review of reports, and dozens of interviews, the panel will present its final report.

The panel also evaluated the safety of substitute sources of water (e.g., bottled water and soft drinks) and of home filters and purifiers as well as the threat of the parasite *Cryptosporidium* to immune-suppressed individuals. After the presentation of the report the meeting will be open to questions and discussion from the audience.

The panelists are Edward

Gershey, the New York Academy of Medicine; David Locke, the New York Academy of Science; and Sidney Horenstein, American Museum of Natural History.

To order tickets send your check payable to the American Museum of Natural History and a self-addressed, stamped envelope to: *Water*, Environmental Programs, American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192. Be sure to include a separate sheet of paper on which you've indicated your name, address, daytime telephone number, number of tickets, and amount of the check. Call (212) 769-5750 for further information.

## Science and Music Festival 1995

Four Sundays, October 8-29  
11:00 a.m.-5:00 p.m.

The Museum will celebrate its 125 years of expeditions, explorations, and discovery with science festivals on October 8 and 22 and music festivals on October 15 and 29. The free festivals will be held in the Museum's many exhibition halls, theaters, the Hayden Planetarium, and outdoors.

Highlights include dinosaur-

theme activities such as a "fun with fossils" program and a dinosaur dig, a dinosaur question-and-answer program live from the fourth-floor halls, and computer activities such as *Nature on Computers* and *Dinosaurs on CD-ROM*. Other highlights are a natural history documentary film program, science workshops and presentations on urban gar-

dening, ethnobotany and traditional healing methods, and international cooking. There will also be storytelling and natural history puzzles and games.

On October 8 Museum scientists will be on hand to identify visitors' artifacts, objects, and specimens.

Call (212) 769-5315 for further information.

## Noh Theater of Japan

Saturday, September 9  
1:00 p.m.

Umewaka Rokuro & Company will give a performance of Noh, Japan's classical theatrical tradition, at a free program in the Hall of Ocean Life. This program is presented in conjunction with the American Museum's 125th anniversary and in celebration of the 35th anniversary of the sister city relationship between Tokyo and New York.

The company will perform *Tsuchigumo* (The Earth Spider), one of the most visually dramatic works of the Noh repertoire, in which a supernatural demon spider, disguised as a priest, ensnares its victims in a magnificent series of webs. The play is from the period during which most of the Noh plays were written, between the fourteenth and fifteenth centuries, and it combines dramatic texts of poetry with music, masked dance, and elaborate costumes. The company will also perform *Kagyū* (The Snail), from the Kyogen, Noh's counter-comedic genre.

This program is part of the Education Department's series *Multicultural Mosaic: Traditions of a Diverse Society*. For further information about the series, call (212) 769-5315, Monday through Friday, 9:00 a.m. to 5:00 p.m.



## John Burroughs Programs

John Burroughs (1837-1921) was a leading literary critic and pioneer in the new school of nature writing. The John Burroughs Association, Inc., presents programs and talks to preserve historic national landmarks in the Catskills associated with Burroughs' life.

Join the friends of the John Burroughs Association on October 6, 7, and 8, for a centennial celebration. *Slabsides: The First Hundred Years* is centered on the cabin of naturalist-writer John Burroughs. Some of the essays that made Burroughs a celebrated author were written at

Slabsides, and this special event is presented in honor of the cabin's 100th anniversary.

Slabsides is located in West Park, New York, on the Hudson River, 80 miles north of New York City and 10 miles south of Kingston. For more information call (212) 769-5169.



# Courses for Stargazers



## ASTRONOMY: BASIC COURSES

### Introduction to Astronomy

Eight Mondays, beginning Sept. 18 or eight Tuesdays, beginning Sept. 19; 6:30-8:40 p.m.  
\$85.50 for Members  
\$95 for non-Members

A first course in astronomy, designed to introduce the many interesting aspects of the universe to those without a math or physics background. Topics include earth as a planet, the moon, the solar system, the stars, the Milky Way, galaxies, quasars, and black holes. Common observations such as planet motions and the rising and setting of the sun and moon are explained. This course serves as a prerequisite for the intermediate-level courses, where specific areas are covered in more detail. Instructors: Craig Small and Henry Bartol.

### Adventures in Astronomy

Seven Saturdays, beginning Sept. 23; 9:40-11:40 a.m.  
\$76.50 for Members  
\$85 for non-Members

Confused about the difference between a star and a planet? Can't tell astronomy from astrology? Don't know Aquarius from Sagittarius or a black hole from a brown dwarf? Join us for a Saturday course for the whole family (ages 10 and up). In the Sky Theater and in labs with astronomical equipment we will explore the birth and death of stars, the origin of the universe, the search for extraterrestrial life, and the current night sky. Instructor: Craig Small.

### Celestial Highlights

Four selected Mondays: Sept. 18, Oct. 16, Nov. 13, Dec. 11  
6:30-7:40 p.m.  
\$36 for Members  
\$40 for non-Members

This course will focus on the interesting and exciting events in the skies of the coming month. The night sky will be accurately simulated by the Zeiss projector in the Sky Theater, and students will learn how to find prominent

constellations of the season and where and when to see gatherings of the moon and planets. The Planetarium's extensive collection of special effects will illustrate upcoming celestial events, including meteor showers and eclipses. Students will also learn about current space missions and how to find nebulae, star clusters, and galaxies that are visible through binoculars or small telescopes. Instructors: Joe Rao and Henry Bartol.

### How to Use a Telescope

Eight Mondays, beginning Sept. 18; 6:30-8:40 p.m.  
\$85.50 for Members  
\$95 for non-Members

An introduction to choosing and using a small amateur telescope. Topics include basic optics of telescopes, equatorial and altitude-azimuth mountings, eyepieces, collimating a telescope, setting up for observation, locating objects in the sky, and the use of charts and other aids for observation. No previous knowledge of astronomy is assumed. This course is particularly recommended for those considering the purchase of a telescope and for those who have one but aren't sure how to use it. Instructor: Sam Storch.

## ASTRONOMY: INTERMEDIATE COURSES

### From Copernicus to Einstein

Seven Wednesdays, beginning Sept. 20  
6:30-8:40 p.m.  
\$81 for Members  
\$90 for non-Members

This survey course examines four of the great scientific ideas that revolutionized astronomy and physics: the mechanical certainty of Copernicus' astronomy; Galileo's physics and astronomy; Newton's physics; and Einstein's relativity of time and space. Non-mathematical presentations of each theory will offer historical and schematic insights into the ways in which these profound ideas have affected the definition of reality. No formal training in physics or math is required. Instructor: William Dorsey.

## Cosmology: The Big Picture

Five Thursdays, beginning Sept. 21; 6:30-8:40 p.m.  
\$72 for Members  
\$80 for non-Members

This course will briefly review the natural history of the physical universe, from quarks to galaxies, as revealed by contemporary astronomy and high-energy physics. Topics will include the inflationary Big Bang, elemental nucleosynthesis, the three-degree background radiation, cold dark matter, and the future of the cosmos. Discussions will consider the historical and philosophical context for modern cosmology along with the latest results from the COBE satellite and the Hubble Space Telescope. Instructor: Michael Allison.

### The Life Cycles of Stars

Six Wednesdays, beginning Sept. 20; 6:30-8:10 p.m.  
\$76.50 for Members  
\$85 for non-Members

Two impressive things about stars are their visual impact and their evolution over millions and billions of years. Stars follow prescribed life cycles from embryo to various terminal stages, and this course will trace the past and future histories of the sun and other stars found in the dust lanes and gas clouds of the Milky Way. All stars reach terminal stages — most, including the sun, end up as slow-cooling white dwarf stars; others may become denser neutron stars. The class will conclude with a discussion of the more massive stars that may become black holes. Instructor: Sune Engelbrektson.

## METEOROLOGY

### Weather and Climate

Eight Thursdays, beginning Sept. 21; 6:30-8:40 p.m.  
\$85.50 for Members  
\$95 for non-Members

Everyone talks about the weather. This course is for those who would like to know more about the atmosphere — how it works and how it affects us. Topics include the structure and motions of the atmosphere, climate, weather forecasting, and atmospheric optics such as rainbows, halos, and twinkling stars. Instructor: Barry Grossman.

## AVIATION

### Ground School for Private and Commercial Pilots

Fifteen sessions, Tuesdays and Thursdays, beginning Sept. 19; 6:30-9:00 p.m.  
\$166.50 for Members  
\$185 for non-Members

This course helps private and commercial pilots prepare for the FAA written examinations. It can also help as a refresher for biennial flight reviews, relieve some instances of fear of flying, and survey some aspects of flight training

and aircraft ownership. Subjects include physiological factors affecting pilot performance, visual and electronic navigation (VOR, ADF, DME, SAT, NAV, and LORAN), charts, publications, computers, principles of aerodynamics, and weather. Students will plan cross-country trips and may use the flight deck simulator. Instructor: Ted Cone.

### Ground School for Instrument Pilots

Fifteen sessions, Tuesdays and Thursdays, beginning Sept. 19; 6:30-9:00 p.m.  
\$166.50 for Members  
\$185 for non-Members

Intended for those planning to take the FAA written examination for an instrument rating. Class meets twice a week, concurrently with Ground School for Private and Commercial Pilots (see above for details).

## NAVIGATION: BASIC COURSE

### Navigation in Coastal Waters

Eight Mondays, beginning Sept. 18; 6:30-9:00 p.m.  
\$99 for Members  
\$110 for non-Members

An introduction to piloting and dead reckoning for present and prospective owners of small boats. The course provides practical chartwork and includes such topics as the compass, bearings, fixes, buoys and lighthouses, the running fix, current vectors and tides, and rules of the nautical road. Boating safety is emphasized. No prerequisites. Students are required to purchase an equipment kit. Instructor: Greg Smith.

## NAVIGATION: INTERMEDIATE COURSES

### Introduction to Celestial Navigation

Ten Thursdays, beginning Sept. 21; 6:30-8:40 p.m.  
\$99 for Members  
\$110 for non-Members

This intermediate course is for those who have completed Navigation in Coastal Waters or who have equivalent piloting experience. The course covers the theory and practice of celestial navigation, the sextant and its use, and the complete solution for a line of position. Problem solving and chartwork are emphasized. Students are required to purchase a copy of Sight-Reduction Tables for Marine Navigation, Volume 3 (Pub. No. 229). Instructor: Greg Smith.

### Troubleshooting Celestial Navigation

Four Tuesdays, beginning Sept. 19 or Oct. 17  
6:30-8:40 p.m.  
\$67.50 for Members  
\$75 for non-Members

This short course is designed for students who are self-taught or otherwise familiar with techniques for navigating by the stars but in need of some practice. Sessions will include a review of the basic theory; use of Volume 1 HO 249, the Rude Star Finder and Nautical Almanac for precalculations of star sights; calculation of LAN and twilight for star sights; review of star sights, moon shots, planet shots, and plotting; and use of celestial computers, sextants, and shooting techniques. No text is required; handouts will be provided. This course will be offered twice each term. Instructor: David Berson.

## Courses for Stargazers

I would like to register for the following Planetarium course(s):

Name of course: \_\_\_\_\_

Price: \_\_\_\_\_ (Please note that discount prices apply only to Participating and Higher Members.)

Class beginning: \_\_\_\_\_

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Daytime telephone: \_\_\_\_\_

Membership category: \_\_\_\_\_

Please mail this coupon with your check payable to the American Museum-Hayden Planetarium to: Courses for Stargazers, Hayden Planetarium, Central Park West at 81st Street, New York, NY 10024-5192. Registration by mail is strongly recommended and is accepted until seven days preceding the first class. For additional information, call (212) 769-5900, Monday-Friday, 9:30 a.m.-4:30 p.m. **No credit cards accepted. Do not include ticket requests or checks for American Museum programs.**



# Museum Notes

**Hours**  
 Exhibition Halls  
 Mon.-Thurs. & Sun. ....10:00 a.m.-5:45 p.m.  
 Fri. & Sat. ....10:00 a.m.-8:45 p.m.  
 The Museum Shop  
 Mon.-Thurs. & Sun. ....10:00 a.m.-5:45 p.m.  
 Fri. & Sat. ....10:00 a.m.-7:45 p.m.  
 The Junior Shop  
 Mon.-Fri. ....10:00 a.m.-4:45 p.m.  
 Sat. & Sun. ....10:00 a.m.-5:45 p.m.  
 The Museum Library  
 Tues.-Fri. ....11:00 a.m.-4:00 p.m.  
 The Natural Science Center  
 The Natural Science Center will be closed for the month of September.  
 The Discovery Room  
 The Discovery Room will be closed for the month of September.

**Museum Dining**  
 Diner Saurus Fast Service Eatery  
 Daily.....11:00 a.m.-4:45 p.m.  
 Garden Cafe  
 Reservations: (212) 769-5865  
 Lunch: Mon.-Fri. ....11:30 a.m.-3:30 p.m.  
 Dinner: Fri. & Sat. ....5:00-7:30 p.m.  
 Brunch: Sat. & Sun. ....11:00 a.m.-4:00 p.m.  
 Whale's Lair  
 Fri. ....3:00-8:00 p.m.  
 Sat. ....Noon-8:00 p.m.  
 Sun. & most holidays ....Noon-5:00 p.m.  
 Snack Carts  
 Sat. & Sun. ....11:00 a.m.-4:00 p.m.

**Entrances**  
 During Museum hours visitors can enter the building through the 77th Street entrance, the Planetarium entrance (81st Street), the first- and second-floor Roosevelt Memorial Hall entrances (79th Street and Central Park West), or through the subway entrance.  
**Visitors attending programs after hours can enter the building at 79th Street and Central Park West or through the parking lot at 81st Street.**

**Phone Numbers**  
 Museum information ..... (212) 769-5100  
 Membership information (for questions about Museum events) .....(212) 769-5606  
 Participating Members' Customer Service (for questions and problems related to Rotunda and Natural History magazine — missed issues, address changes, and other information) ..... (800) 283-AMNH  
 Planetarium information ..... (212) 769-5900  
 Education Department .....(212) 769-5310  
 Discovery Tours .....(212) 769-5700  
 .....toll-free outside NY State: (800) 462-8687  
 IMAX\* .....(212) 769-5650  
 Development/Public Affairs .....(212) 769 5270  
 Volunteer Office .....(212) 769-5566  
 Museum Shop .....(212) 769-5150  
 Library Services .....(212) 769-5400  
 Natural History magazine .....(212) 769-5500  
 Members' Book Program.....(212) 769-5500  
 Members' Birthday Parties .....(212) 769-5542  
 Planned Giving Office .....(212) 769-5119  
 .....toll-free outside NY State: (800) 453-5734

# Happenings at the Hayden

## Lecture

### Frontiers in Astronomy and Astrophysics

On Wednesday, October 11, at 7:30 p.m., NASA astronaut Ellen Baker will give an illustrated talk about her recent flight aboard the *Atlantis* and the space shuttle's docking with the Russian space station *Mir*.  
 This lecture is part of the Frontiers in Astronomy and Astrophysics series. Tickets are \$6 for Participating and Higher Members and \$8 for non-Members. For additional information, call (212) 769-5900.

## Sky Shows

### The Ten Most-Asked Questions about the Universe

What is a black hole? Is there life elsewhere in the universe? How will the universe end? This Sky Show answers these and other frequently asked questions about space. Through September 4.

### Cosmic Mind Bogglers

If we could journey through space looking for "cosmic record holders," where would we find them? Where are the tallest mountains? The grandest canyons? The hottest stars? The largest, most bizarre, or most mysterious things in creation? Visit these and other Cosmic Mind Bogglers in the Planetarium's new show. Premieres September 7.

**Showtimes:**  
 Mon.-Fri.: . .1:30, 2:30, 3:30, and 4:30 p.m.  
 Sat.: . .1:00, 2:00, 3:00, 4:00, and 5:00 p.m.  
 Sun.: . . . .1:00, 2:00, 3:00, and 4:00 p.m.

**Admission (Participating and Higher Members)**  
 Adults: \$5  
 Children (2-12): \$3  
 Call (212) 769-5100 for additional information and non-Members' prices. Please note that prices and schedules are subject to change without notice.

## Children's Shows

Special shows for children and their families are offered every Saturday and Sunday at 11:00 a.m.  
*Teddy's Quest*, for ages 3 to 9, tells the story of a teddy bear who travels through space and discovers the answers to such questions as how stars are formed, how to identify constellations, and what it's like on the moon. Every Sunday at 11:00 a.m.

*Wonderful Sky* is a special Sky Show for preschoolers. Children sing along with images of their favorite Sesame Street Muppets as they learn about rainbows, the phases of the moon, sunsets, and stars. Sat., Sept. 9, at 11:00 a.m.  
*The Secret of the Cardboard Rocket*, for ages 6 to 9, explores all of the major objects in our solar system, including the sun, moon, all nine planets, and some of their satellites. Saturdays, Sept. 2, 16, and 23, at 11:00 a.m.  
*Robots in Space* features Lucasfilm's R2D2 and C-3PO® and has been created especially for children ages 7 to 12. Together with a live host, these famous space robots take children on a journey from the earth to other planets and distant black holes. Sat., Sept. 30, at 11:00 a.m.  
 Tickets can be purchased the day of the show. Admission for Participating and Higher Members is \$5 for adults and \$3 for children. For additional information, call (212) 769-5900.

## Laser Light Shows

Journey into another dimension where laser visuals and rock music combine to create a dazzling 3-D experience of sight and sound. Shows are presented on Fridays and Saturdays at 7:00, 8:30, and 10:00 p.m. For prices and show schedule, telephone (212) 769-5100.

## IMAX® Theater



Destiny in Space

Two new movies are currently showing in the IMAX® Theater: *Destiny in Space* and *Titanica*. Narrated by Leonard Nimoy, *Destiny in Space* focuses on the intricate partnership of humans and robots in the future of space exploration. It is the newest feature in the trilogy that includes *The Dream Is Alive* and *Blue Planet*. *Titanica*, which was shot during an international scientific expedition, takes audiences 12,500 feet beneath the murky North Atlantic to the haunting site of the wreck of the *Titanic*.  
 Showtimes for *Destiny in Space* are 10:30 and 11:30 a.m. and 1:30 and 3:30 p.m. daily. *Titanica* is shown at 12:30, 2:30, and 4:30 p.m. On Friday and Saturday at 6:00 and 7:30 p.m. the films are shown on a double-feature bill; double-feature tickets are also available during the day. Each film is 40 minutes long.  
 Admission for Participating and Higher Members

is \$5 for adults and \$3 for children for single features and \$7 for adults and \$4 for children for double features. A dinner/theater package, which includes dinner in the Garden Cafe and the IMAX® double feature, is available for \$22 to Participating and Higher Members. Call (212) 769-5350 for information about the package and for reservations.

## New Parking Policy

Parking is no longer complimentary for people attending evening programs. For information about parking rates, call (212) 769-5238  
 The parking lot is open every day from 7:00 a.m. till 11:30 p.m. The parking lot has a capacity of 100 vehicles and is opened on a first-come, first-served basis.  
 Call the Membership Office at (212) 769-5606 for information about alternative parking.

## Too Much Mail?

The Membership Office recently mailed a letter to prospective Members asking them to join the Museum. In spite of our best efforts to remove the names of our current Members from this mailing, you may have received one of these letters. Please accept our apology. Would you consider passing the letter on to a friend? Your help in reaching new Members is greatly appreciated.



Beat the Crowds  
by Bringing  
Your Card

The new dinosaur halls are the talk of the town (and beyond), and people who have never been to the Museum before are flocking to see the dramatic exhibits. Don't get stuck in a line before the fun begins — bring your membership card and step right up. Enter at the Theodore Roosevelt Memorial Hall on 79th Street and Central Park West, which is open every day. Walk up the steps to the second-floor Rotunda en-

trance, show your card at the Members' desk, and you'll be issued passes.

There are four other entrances to the Museum: the street-level entrance at 79th Street and Central Park West; the 77th Street entrance, between Central Park West and Columbus Avenue; the subway entrance; and the Planetarium entrance at 81st Street between Central Park West and Columbus Avenue. The Members' desks at these entrances are open only on weekends and holidays, and the parking lot entrance is

open only for handicapped access and for people attending evening programs.

Members wishing to see a Sky Show at the Planetarium and/or an IMAX® movie can purchase combination tickets at the Members' desk. A Members' combination ticket for IMAX® or the Planetarium is \$5 for adults and \$3 for children; a combination ticket for IMAX® and the Planetarium is \$7 for adults and \$4 for children. As always, Members are not charged for admission to the Museum. These rates apply

only to Participating and Higher Members. Associate Members are entitled to free admission for themselves alone, not their guests, and must pay the non-Members' prices for combination tickets for all except themselves.

Lost or forgotten cards require paperwork and a wait for confirmation of membership status, so save yourself some time by bringing your card. If you can't find your card, bring the label from your copy of *Natural History* magazine or Rotunda.

September 1995  
American Museum  
of Natural History

1

2

7:00 p.m. *Ancestral Passions: The Leakey Family and the Quest for Humankind's Beginnings.* Members' evening program. Kaufmann Theater. \$5 for non-Members. Page 2.

8

9:00 p.m. *Noh Theater of Japan.* Hall of Ocean Life. Free. Page 13.

10:2:00 p.m. NY Shell Club. Room 319.

11

12:7:30 p.m. Linnaean Society. Linder Theater. Free.

13:5:30 p.m. NY Mineralogical Club. Room 319. Free.

14:5:00-8:00 p.m. *Pteranodon Squadron.* Young Members' model airplane workshop. Hall of Ocean Life. \$20, and open only to Participating and Higher Members. Page 3.

15:6:30 p.m. *King of the Wild Frontier.* Members' guided tour at the Museum. Tickets required. Page 4. **SOLD OUT**

17:11:00 a.m., 1:00 and 2:30 p.m. The Experimental Orchestra. Members' Grandparents Day workshop. \$12, and open only to Participating and Higher Members. Page 2.

18

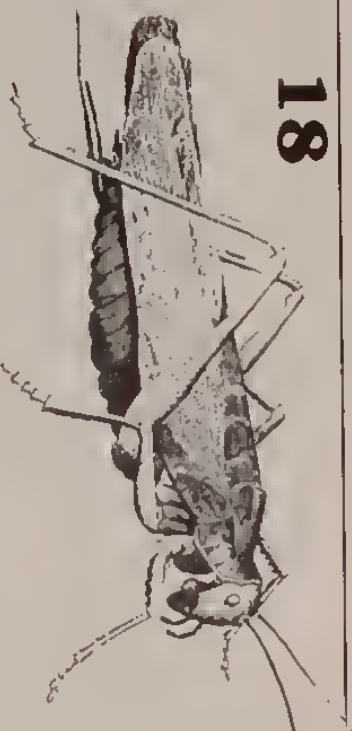
20:7:00 p.m. *Geology and History of the Harlem River* through the Ages. Members' evening program. Kaufmann Theater. \$6 for Members, \$9 for non-Members. Page 5.

21

22

23:10:30 a.m. *Whale of a Day!* Members' family program. \$18, and open only to Participating and Higher Members. Page 3.

2:00 p.m. Paleontological Society. Room 319. Free.



24

25 Rosh Hashanah.

26:7:30 p.m. Linnaean Society. Linder Theater. Free.

28

27:6:30 p.m. *Is New York City's Water Safe to Drink?* Panel discussion. Kaufmann Theater. \$5 for Members, \$8 for non-Members. Page 13.

29:7:00 p.m. *Renovating the Dinosaur Halls.* Members' evening program. Kaufmann Theater. \$6 for Members, \$9 for non-Members. Page 1.

30:10:00 a.m. and noon. *Bridging the Harlem River by Foot.* Members' walking tour. \$20, and open only to Participating and Higher Members. Page 5.

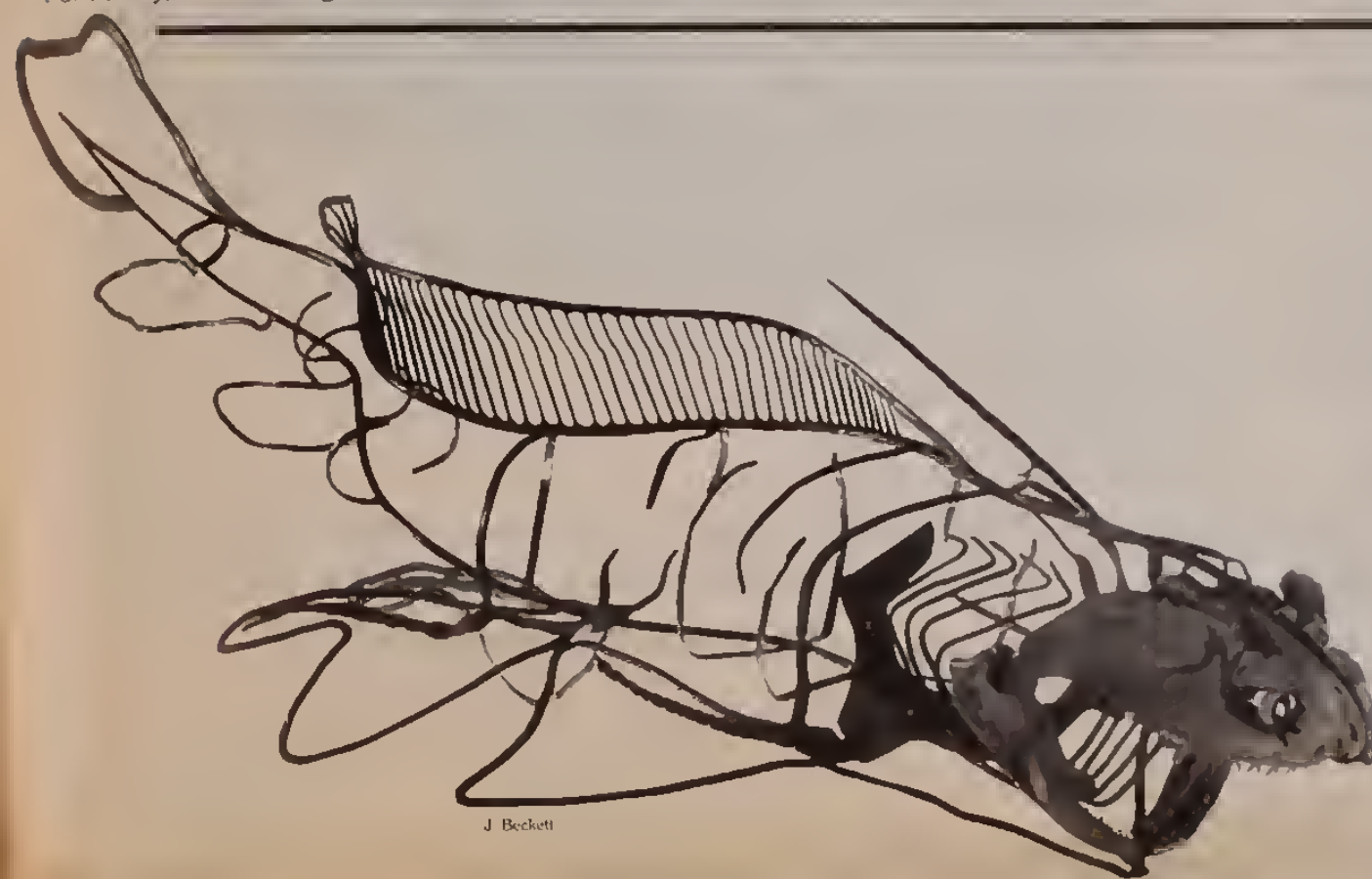




# ROTUNDA

For Family/Dual and Higher Members of the American Museum of Natural History

Vol. 22, No. 5 May 1996



J. Beckett

The new Hall of Vertebrate Origins, although it is the last in the sequence of fourth-floor renovations, shows the evidence of the beginnings of our extended vertebrate family, stretching back 500 million years.

On the left, a wire reconstruction containing the cast of a skull and jaws of an unknown species of *Orthacanthus*, a shark that grew to be as long as 8-10 feet and lived 280 million years ago. Below, the installation of *Stupendemys geographicus* — the largest known turtle, which lived 5 million years ago off the coast of South America. The skeleton and shell, measuring over eleven feet in length, is a cast but the skull was sculpted by a preparator from the Museum's vertebrate paleontology lab.

## 500 Million Years of Vertebrate Evolution

### Fourth-Floor Restoration Near Completion



With the opening in June of the fourth-floor Hall of Vertebrate Origins and the innovative Orientation Center, the American Museum of Natural History completes the final phase of its ambitious seven-year renovation and restoration project of the halls of vertebrate evolution (evolution of animals with backbones). The redesign creates a loop of six halls — all restored to their original architectural grandeur — which house the largest and most spectacular collection of vertebrate fossils on display anywhere in the world.

Visitors can begin their tour of the fourth floor at the Miriam and Ira D. Wallach Orientation Center, which will offer background information on the exhibits. There, they will be greeted by a fleshed-out model of a juvenile barosaur and a video introducing the major theme of the halls: what do we know about long-extinct vertebrates and what aspects of their lives remain unresolved?

One thing we know a great deal about is how long ago these animals lived. A series of computer stations along one wall of the Orientation Center lets visitors travel back in evolutionary time. The Timelines computer program is activated when a visitor chooses an ancient era that he or she would like to explore. The image of our modern world on the screen then begins to transform as the continents move back to the geographic positions they occupied at the time chosen. Cross hairs zero in on the locality to be visited, and images of the animals that lived at that location zoom up on the screen. Players can scroll around the scene selecting animals they would like to learn more about. Environmental descriptions are also available. In this way, visitors are introduced to many of the fossil relatives on display throughout the halls.

Electronic newspapers, similar to those

installed outside the Museum's first-floor Hall of Human Biology, will also be available in the Orientation Center. Three computer stations will offer the latest published information on recent finds and discoveries in the field of vertebrate evolution.

Along the other wall of the center — as well as in a ten-minute presentation in its theater — visitors can focus on another theme: which animals are most closely related to one another? Most people are interested in finding out about their own family histories, and one of the major pursuits of paleontologists is to uncover the family history of different life forms. Scientists at the Museum have been instrumental in developing new approaches to reconstructing evolutionary relationships, and the basic layout of the fossils in the new exhibition halls reflects the anatomical evidence on which these relationships are based.

— Melissa Posen

#### Members' Preview

Family/Dual and Higher Members are invited to preview the Hall of Vertebrate Origins and the Orientation Center on Wednesday, June 12, from 4:00 to 9:00 p.m. Volunteer Explainers will be on hand to answer questions and point out items of particular interest. No tickets or reservations are necessary for this free preview; your valid membership card is your ticket of admission.

#### Lecture Series and Workshop

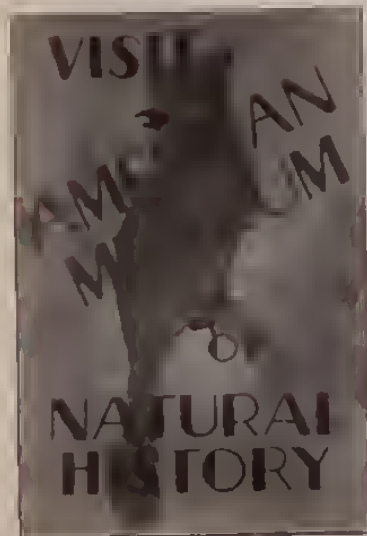
More information on the contents of the new hall will be available in two lectures: "On the World of Vertebrate Fossils" and "Fossil Fishes: So Much Diversity, So Little Change." For details on these lectures and on a special workshop for molding and casting fish fossils, see page 4.



## Second Notices

The following programs were announced in last month's *Rotunda*. Unless otherwise specified, a limited number of tickets are still available. For detailed information on these listings, see the April issue of *Rotunda*. These programs are open only to Family/Dual or Higher Members unless a non-Members' price is specified.

Use the Tours and Workshops coupon on page 5 to register for the programs opposite.



### Time Travelers' Museum-Theater

Live performance combined with a guided tour of one of the world's best-loved museums. Original dates sold out. Performance extended to one evening, May 18, 7:00-9:00 p.m. \$25 for Members; \$30 for non-Members.

### Fountaineering

Members' walking tour, led by Sid Horenstein. Wednesday, May 8, either 4:30-6:00, 6:00-7:30, or 7:30-9:00 p.m. \$20.

### Collecting and Identifying Insects

Workshop conducted by Caroline Chaboo. Two Wednes-

days, May 22 and May 29, 5:30-7:30 p.m. \$40; ages 12 and older.

### Discovering Washington Heights

Members' walking tour of the uptown Manhattan neighborhood, led by Joyce Gold. Saturday, May 18, 2:00-4:00 p.m. \$25.

### Insects — Masters of the Earth

Museum tour led by Robert Campanile. Friday, May 31, 6:30 p.m. Free.

Use the May Members' programs coupon on page 3 to register for the program below:

### The Mind's Eye: Optical Illusions and Mental Deception

Illustrated lecture on visual perception. Wednesday, May 15, 7:00-8:30 p.m. \$6 for Members, \$9 for non-Members.

American Museum of Natural History  
Presents

## Time Travelers' Museum-Theater "Four Who Dared"



Limited Engagement

Friday & Saturday, May 3, 4, 10, 11, at 7:00 p.m.

American Museum of Natural History  
Central Park West at 79th Street, New York City

Reservations:

212 769 5542

Tickets: \$30, \$25 AMNH Members, TDM accepted

### Members' Walking Tour

## The 96th Street Mosque

Saturday, June 15

11:00 a.m.-12:30 p.m.

\$20 and open only to Family/Dual and Higher Members

Join architect Mustafa Abadan for a guided tour of the celebrated mosque that is the centerpiece of the Islamic Cultural Center, at Third Avenue and 96th Street. The center, which serves a large part of greater New York's Islamic community, was designed as a place of both worship and social interaction. It houses, as mosques traditionally have, classrooms and a library.

According to an article about the site in the *Architectural Record*, Islamic traditions were melded "with the best that twentieth-century technology has to offer" in the center's design, which includes a 130-foot minaret and a copper-clad dome topped by a gilded crescent pointing to Mecca.

Abadan, who served as senior designer for the project, will lead participants

through the mosque's interior and offer an overview of its exterior. He'll begin with an introduction to Islamic architecture and describe the attempts to interpret traditional motifs within a modern-day urban context.

Women are requested to wear a head covering for this tour. Use the coupon on page 5 to register, and please note that tickets are available only by mail.

## Flagging Blennies

Wednesday, June 5

7:00-8:30 p.m.

Kaufmann Theater

\$6 for Members, \$9 for non-Members



Near dawn, close to a remote coral reef off the coast of Central America, a sailfin blenny emerges from a hole in a fragment of dead coral. It quickly raises and lowers its fins several times before darting back into its shelter. In the next few hours, this ritualistic display will be repeated over and over, possibly as many as a thousand times before the sun sets. Is the blenny's "flagging" behavior a kind of communication? And what is the blenny saying?

During several decades of studying fish, C. Lavett Smith, curator emeritus in the Department of Ichthyology, has noted the appearance and behavior of hundreds of species. One of the most fascinating has proved to be the sailfin blenny, an inhabitant of coral reef ecosystems and a master of flagging and nest guarding.

Since the development of modern diving equipment in the 1950s, ecologists have found that coral reefs, home

to many diverse fish communities, are ideal laboratories for studying how biodiversity arises and how it is maintained. This lecture, illustrated with slides and videotape recordings made in the field over a period of four years, will focus on how the sailfin blenny uses food and shelter around the coral reef ecosystems in a unique way.

Use the Members' programs coupon on page 3 to register for this event.

## ROTUNDA

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## And Now for Something Completely New

The Museum is gradually implementing a computerized service for ticketing and reservations. Everything from visitors' entrance fees to tickets for all Museum and Planetarium events will soon be handled by computer at all entrances and point-of-sale locations within the Museum.

The first phase is scheduled to go into effect this month, when visitors will be able to purchase tickets to any event scheduled for the day of their visit at their point of entry. And soon, with one call to our Central Reservations Department, Members will be able to use their credit cards to reserve and purchase tickets for all Museum and Planetarium events advertised in the pages of *Rotunda*.

Stay tuned for more information on how to access this new service.



*The Planetarium's original Zeiss projector*

Rice and Bennett/AMNH

## Members' Memo

### We'd Like To Hear From You



Are there any Museum events and issues we've failed to cover in our pages? Are there things our readers would like to see appearing that aren't? Do you have any questions or comments about our articles or the overall appear-

ance of the newsletter?

We would like to make *Rotunda* as informative, useful, and interesting as possible to Members. Since we're planning soon to produce our newsletter with improved technology, we think that it

might be time for some changes, and we'd like those changes to encompass as many of our Members' needs and wishes as possible.

Do you think coupons and registration forms for events and programs are clear and easy to use? Would you like to see more copy about Members themselves? More articles about the Museum itself?

Please send your thoughts to us, and help make a new, improved *Rotunda* a reality. Write to:

Editor, *Rotunda*  
American Museum of Natural History  
Central Park West at 79th St.  
New York, NY 10024-5192  
Attn: Membership Dept.

Or fax your comments to us at (212) 769-5427.

## Exhibit of the Month

### Dissecting a Gem

Did you know that both sapphires and rubies are gems composed of the same mineral — corundum? A brilliant and rare gem material, corundum is noted for its durability, second only to that of diamonds.

A ruby is a gem of a specific blood-red shade of corundum colored by chromium oxides. Blue sapphires contain small amounts of titanium and iron oxides. Sapphires occur in many other colors, depending on the traces of metal compounds or other minerals in them, and those that are

not either blue or blue-violet are called "fancy sapphires."

The Museum has an outstanding collection of sapphires on display. One of the most unusual is a 100-carat orange sapphire called Padparadschah. The name is a corruption of the Sanskrit *pahd marga* and describes a Sri Lankan lotus distinguished by an orange flower. The color in this stone is due to the presence of both chromium and ferric iron within the corundum.

Gems are weighed in carats. One carat equals 200

milligrams (or gram 0.2), and there are 141.75 carats in one ounce. Carat and karat are often thought of as the same thing, but karat is the unit of measure of gold purity (24-karat gold is pure gold). Both words most likely originated in an Arabic term used to designate a pod or husk, probably from the carob tree. Carob seeds, due to their extremely uniform weights, were used in ancient marketplaces to balance the scales when measuring the weights of gems.

— Erica Okone

## May Members' Programs Coupon

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Daytime telephone: \_\_\_\_\_

Membership category: \_\_\_\_\_

Total amount enclosed: \_\_\_\_\_

Please make check (if applicable) payable to the American Museum of Natural History and mail with a **self-addressed, stamped envelope** to: May Members' Programs, Membership Office, American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192. **Telephone reservations are not accepted.**

*Unless otherwise indicated, no more than eight tickets may be ordered for a program. Family/Dual Members are entitled to four tickets per program at the Members' price. Higher Members are entitled to six tickets, and Associate/Individual Members are entitled to one ticket.*

**The Mind's Eye: Optical Illusions and Mental Deception.** Wednesday, May 15, at 7:00 p.m.

Number of Members' tickets at \$6: \_\_\_\_\_

Number of additional tickets at \$9: \_\_\_\_\_

Total amount enclosed for program: \_\_\_\_\_

**Flagging Bennies**

Wednesday, June 5, at 7:00 p.m.

Number of Members' tickets at \$6: \_\_\_\_\_

Number of additional tickets at \$9: \_\_\_\_\_

Total amount enclosed for program: \_\_\_\_\_

**Danny and the Dinosaur Go to Camp**

Saturday, June 1, at 1:00 p.m.

Number of Members' tickets at \$10: \_\_\_\_\_

Number of additional tickets at \$15: \_\_\_\_\_

Total amount enclosed for program: \_\_\_\_\_

**Lecture Series**

**The World of Vertebrate Fossils**

Wednesday, June 12, at 7:00 p.m.

Number of Members' tickets at \$6: \_\_\_\_\_

Number of additional tickets at \$9: \_\_\_\_\_

**Fossil Fishes: So Much Diversity, So Little Change**

Wednesday, June 19, at 7:00 p.m.

Number of Members' tickets at \$6: \_\_\_\_\_

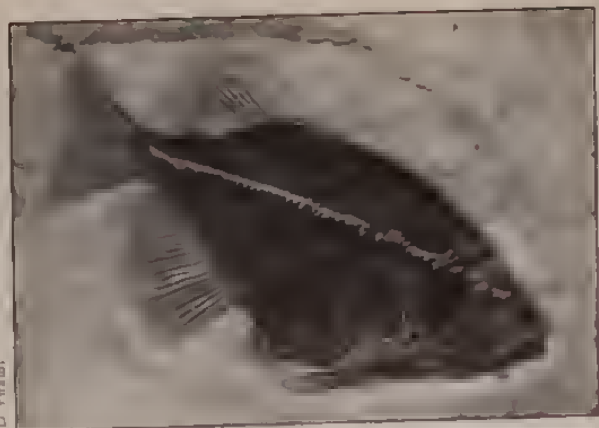
Number of additional tickets at \$9: \_\_\_\_\_

Number of Members' tickets for both lectures at \$10: \_\_\_\_\_

Number of additional tickets for both lectures at \$16: \_\_\_\_\_

**NOTE: No refunds/exchanges. Allow two weeks for your mail order. Call (212) 769-5606 for ticket availability or to verify receipt of your order. If less than two weeks remain, tickets can be purchased at the 77th St. entrance Members' Desk on weekends and holidays.**





D. Frazar

At left is a fossil of *Phareodus testis*, an actinopterygian, or ray-finned fish, that lived 50 million years ago. Fossils can answer many of our questions about ancient life. The size of the skeletal bones embedded in the fossil gives us a good idea of how large the animal was. The shapes of the bones allow us to discover which other animals were its closest evolutionary relatives. Unfortunately, however, fossils do not answer all our questions.

As visitors walk through the new Hall of Vertebrate Origins, the labels will explain what we know—and don't know—about our long-extinct vertebrate relatives.

—Melissa Posen

## Lecture Series: Hall of Vertebrate Origins

Two nights, June 12 and 19

7:00–8:30 p.m.

Kaufmann Theater

\$6 for Members (or \$10 for both lectures)

\$9 for non-Members (or \$16 for both lectures)

## The World of Vertebrate Fossils

Wednesday, June 12

When the Hall of Vertebrate Origins opens, it will complete the world's largest exhibition of vertebrate fossils. Although it is the last element in the fourth-floor exhibition project, it actually presents the opening chapter in the book of vertebrate evolution.

Eugene S. Gaffney, curator in the Department of Vertebrate Paleontology, will discuss the significance of the new halls and explain why

cladistics — a new way of looking at evolutionary relationships — is used as the organizing principle. Gaffney will give a brief overview of the exhibition project, including how specimens were chosen, prepared, and mounted. He will also discuss features of the first land vertebrates and the main groups of tetrapods displayed in the halls: amphibians, turtles, plesiosaurs and ichthyosaurs, lizards, primitive archosaurs, and pterosaurs.

Gaffney, a curator since 1970, was closely involved with the project for the new halls from its inception. He is a specialist on the evolution of turtles and has done field work in Australia, Africa, and South America.

## Fossil Fishes: So Much Diversity, So Little Change

Wednesday, June 19

One of the great paradoxes of vertebrate evolution is that fishes display such phenomenal diversity — representing more than half the world's total vertebrate species — yet have retained essentially the same anatomical plan for about 400 million years.

John G. Maisey, curator in the Department of Vertebrate Paleontology, will present an illustrated talk about the evolution of fishes. He will focus on

the above paradox and will also discuss some of the ways in which the study of fossil fishes throws light on our own origins.

Maisey received his doctorate in zoology and comparative anatomy from the University of London in 1974 and joined the Museum in 1979. His earlier research included studies of extinct sharks; he now works extensively on Early Cretaceous fossil fishes from Brazil and Venezuela. His book *Discovering Fossil Fishes* will be available for purchase and book-signing.

**Use the May Members' programs coupon on page 3 to register for one or both of the lectures in this series.**

## We're Trying to Keep Up

Our programs are growing in number and popularity and our office staff sometimes experiences difficulties keeping up with the pace. Members have voiced their concerns about this and we are listening. We'd like to remind you that tickets for all Members' programs can be purchased on weekends and holidays at the Membership Desk located at the 77th St. entrance to the Museum. Credit card reservation and purchase of tickets — one of the goals of the new Central Reservations Department — is on its way, but meanwhile we'll continue doing everything possible to help you enjoy the programs you love.

## Membership Services Information

For Museum events only . . . . . (212) 769-5606  
For Family/Dual membership inquiries (800) 283-AMNH

## Members' Fossil Casting Workshop

## Molding and Casting Fish Fossils

Saturday, June 22

10:00 a.m.—1:00 p.m.

\$50, and open only to Family/Dual and Higher Members (ages 14 and older)

In conjunction with the opening of the Hall of Vertebrate Origins, Pamela Popson will host a workshop in which Members can learn the techniques used by Museum artisans to produce replicas of fossils. After preparing a fossil model, participants will construct a mold and then make a facsimile casting, creating their own reproduction plaque of a fish fossil.

Popson has been working with artifacts and fine art objects for over sixteen years. She currently heads the Fossil Reproduction Department, where she makes models, molds, and casts of specimens from the collections. Popson has also taught art to children of all ages.

**Use the coupon on page 5 to register.** Tickets are available only by mail.

## Provide For Your Future. . .



## . . . And Enrich The Lives Of Others.

Through a gift to the American Museum of Natural History that provides lifetime income, you promote preservation and extend understanding of the natural world for generations to come and, at the same time, provide for your own retirement. If you are age 55 or older, you can:

- receive income for life, for yourself and/or a loved one;
- enjoy an immediate income tax deduction;
- decrease or eliminate capital gains tax when low-yield, highly appreciated stocks are sold to re-invest for higher income;
- reduce the cost — through the combined benefits of an income stream and an immediate income tax deduction — of a gift important to the Museum's future.

For more information, please call toll-free 1 (800) 453-5734 or complete and return this confidential reply form to Jane C. Palmer, Director of Planned Giving, Office of Development, American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192.

Please send me information on gifts that provide lifetime income, tax savings, and other benefits, while enriching the lives of others:

Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
Phone (home): \_\_\_\_\_ (office): \_\_\_\_\_

Tax and other financial benefits may depend on age.

My (our) age(s): \_\_\_\_\_

Your reply is confidential and implies no obligation. 5/96



## New Exhibit Opens in June

# Scientists and Journalists — One Story, Two Voices: A Century of Science Reporting in The New York Times

The relationship between scientific research and its presentation in the media is the subject of an exhibition opening June 26 outside the Hall of Human Biology.

To explore this theme, the exhibit will present enlarged facsimiles of original reports from *The New York Times* on significant discoveries and events during the past 100 years of human evolution research. These will be presented along with commentary prepared by curator Ian Tattersall providing a modern perspective.

The events and finds featured in the exhibition include the 1895 discovery of Java man (*Homo erectus*) by Eugene Dubois, the 1908 discovery of the Piltdown man in

England and its subsequent exposure as a fraud in 1953, the Scopes Monkey Trial of 1925, and the discovery of the Lascaux cave paintings. Also on view will be casts of the fossils mentioned in the articles as well as archival letters to the Museum's scientists from the discoverers of the relevant specimens.

The exhibit, organized by Ian Tattersall in collaboration with John Noble Wilford, a Pulitzer Prize winning science writer for *The New York Times*, will be on view in the gallery space just outside the Hall of Human Biology and Evolution. The hall opened in April 1993 and is the country's only permanent exhibition dedicated to an in-depth investigation of the mysteries

of human origins. Tattersall served as its curator and is chairman and curator of the Department of Anthropology.

The Museum joins three other New York City institutions in a simultaneous presentation of exhibits marking the 100th anniversary of the purchase of *The New York Times* by Adolph S. Ochs: "Pictures of the Times: A Century of Photography from *The New York Times*" at the Museum of Modern Art; "Headline, Deadline, and Byline: A Century of *The New York Times* Morgue, 1896-1996" at the New York Public Library; and "Documenting the Times: Adolph S. Ochs and the Early Years of *The New York Times*" at the Pierpont Morgan Library.



Above, an engraving in the Museum's Vertebrate Paleontology archives shows prominent figures from the early twentieth century controversy surrounding the discovery of the Piltdown skull (from left to right, T.O. Barlow, Elliott Smith, A.S. Underwood, A. Keith, Charles Dawson, A. Smith Woodward, W.P. Pycraft, and E. Ray Lancaester), which was subsequently denounced as fraudulent. The history of the hoax, which remains unsolved, is one of the subjects brought into focus in the exhibit *Scientists and Journalists: One Story, Two Voices*. Below, drawlogs of the head of the Piltdown man by L.M. Sterling, after McGregor's restoration.

## Members' Family Program

# Danny and the Dinosaur Go to Camp

**Saturday, June 1**  
**1:00-2:30 p.m., Linder Theater**  
**\$10 for Members, \$15 for non-Members**  
**Ages 3 and up**

Syd Hoff returns to the Museum in June to host another of his popular "chalk talks." The creator of the 1958 children's classic *Danny and the Dinosaur*, Hoff will be making his third appearance here. In this program he will draw on an onstage easel and talk with participants about his work.

Since his last visit, Hoff has written and illustrated two sequels to his original book—*Happy Birthday, Danny the Dinosaur!* (1995) and *Danny and the Dinosaur Go to Camp*, which was released

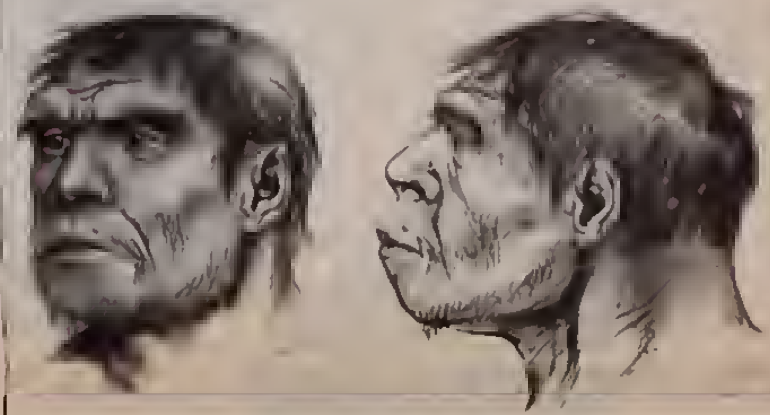
this spring (both published by HarperCollins). *Danny and the Dinosaur* has been translated into half a dozen languages and sold more than 10 million copies.

The creator of many other works in the well-known I Can Read series, Hoff made the preliminary sketches for *Danny and the Dinosaur* right here at the Museum. He relates that the idea came to him one day while he was drawing pictures for his daughter, who was stricken with a physically debilitating condition, to take her mind off

her physical therapy. Hoff's humorous designs are marked by simplicity, and he prefers to work in ink, washes, crayon, and watercolor, drawing on the New York neighborhoods in which he grew up for his cartoon characters.

Participants will have the opportunity during this chalk talk to see simple lines become funny pictures and to enjoy the animated film *Danny and the Dinosaur*, produced by Weston Woods. Hoff's newest books will be available for purchase at the event, and he will sign copies.

All children and adults attending the program must have tickets; **use the May Members' programs' coupon on page 3 to register for the event.**



## Education Department Lecture

# The Sixth Extinction: Collapsing Biodiversity?

**Thursday, June 13**  
**7:00-8:30 p.m.**  
**\$10**

Human actions resulting in the deforestation of the rain forests, for example, or the destruction of wild habitats are pushing species into extinction at a rate rapidly approaching one a minute. Early in the next century, fully half the world's species will have suffered this fate, qualifying this catastrophe as a mass

extinction. On five different occasions in the history of our planet existing biodiversity collapsed by more than 50 percent, followed by a rapid recovery.

The question to ask about this sixth extinction is, Does it matter? Surprising answers can be found by looking at the question within the historical

perspective gained from the fossil record. Roger Lewin, co-author with Richard Leakey of the new book *The Sixth Extinction*, discusses this and other related issues at this illustrated lecture.

Lewin and Leakey's book will be available for purchase at the program, and Lewin will sign copies for participants. To register, send your check payable to the American Museum of Natural History, together with a self-addressed, stamped envelope, to: *The Sixth Extinction*, Education Department, American Museum of Natural History, Central Park West at 79th St., New York, N.Y. 10024-5192. If you have any questions, call (212) 769-5310.

**Tours and Workshops.** Use this coupon to register for Time Travelers' Museum Theater — *Four Who Dared* (only May 18 is still available), *Fountainneering* (indicate a first and second choice of times), *Collecting and Identifying Insects*, *Discovering Washington Heights*, *Insects — Masters of the Earth*, *Tour of the 96th St. Mosque*, *Molding and Casting Fish Fossils*, and *Art of the Mask Tour*.

Name(s) of program(s): \_\_\_\_\_

Number of tickets and price (please indicate which program if more than one): \_\_\_\_\_

Total amount enclosed: \_\_\_\_\_

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Daytime telephone: \_\_\_\_\_

Membership category: \_\_\_\_\_

Please make check payable to the American Museum of Natural History and mail with a **self-addressed, stamped envelope** to: *Tours and Workshops*, Membership Office, American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192.



## Members' Guided Tour

# Art of the Mask

Friday, June 28  
7:00-8:30 p.m.

This tour will travel throughout the anthropology halls to consider the unifying theme of the Museum's rich collection of masks. With guide Susan Shackter, participants will view some of the oldest masks in the collections, several dating back as much as 2,500 years.

Tour members will also

view masks from New Guinea's Sepik River region, Japanese Noh masks, and Tibetan Buddhist masks, considering them not only from the aesthetic point of view but also in light of their cultural significance in individual societies. Shackter will talk about the relation of African masks to the work of Picasso, of

Northwest Coast Indian masks to the work of surrealist Max Ernst, and of Mexican masks to the work of Rufino Tamayo.

This tour is free of charge to Family/Dual and Higher Members, but please note that all attendees must have tickets. **Use the coupon on page 5 to register.**



AMNH/Lynette Gardiner

Three aspects of one of the most remarkable pieces in the museum's Northwest Coast collection, a Kwakiutl triple transformation mask. Transformation masks are among the most dramatic pieces made by the Kwakiutl. This example, in wood, could be snapped open during a dance to reveal beings entirely different from one another. When completely shut, it represents a smiling bullhead fish, when first opened a sea roven, and when fully opened the hera known as Siwidi, or "Born-to-be-the-Head-of-the-World."

## Endangered Africa

In January 1997, Discovery Tours will embark on its most in-depth exploration of Africa to date to examine some of the endangered cultures and habitats on this vast and fascinating continent.

Nowhere but in Africa, with its almost mystical allure, can travelers find great herds of big game roaming freely on the plains as they have for thousands of years, an abundance of extraordinary and complex cultures, and a diversity of terrain that includes vast deserts, snow-capped mountains, thundering waterfalls, and the world's most spectacular geological depression, the Great Rift Valley. Underlying Africa's timeless beauty and magnetism, however, is the fact that habitat destruction and the loss of biodiversity threaten its wildlife and traditional cultures as never before.

In addition to visiting places such as Victoria Falls and Marakech, participants will view areas that are normally restricted (the Museum has obtained special permission for these visits). Arrangements

have also been made to visit with field biologists and anthropologists to examine current conservation practices and explore complex problems and issues with those who are committed to protecting Africa's irreplaceable resources.

The tour focuses on natural history, prehistory, ecology, and ethnography and will be enhanced with a stimulating education program presented by some of Discovery Tours' most popular experts — Michael Novacek, Ian Tattersall, Melanie Stiassny, John Van Couvering, Enid Schildkrout, and Joel Cracraft.

On this Discovery Tour, participants will travel on a specially chartered, all-first-class Boeing 757, allowing for an itinerary that includes some of Africa's most remote and diverse areas in Tunisia, Ethiopia, South Africa, Namibia, and Mali. The price is \$25,950 per person, double occupancy. For more information, call Discovery Tours at (800) 462-8687, or at (212) 769-5700, Monday-Friday from 9:00 a.m. to 5:00 p.m.

## What's New at the Museum Shops

Visit the Museum Shops often to see changing displays of merchandise related not only to the Museum's exhibits but also to the changing seasons. The Main Shop on the first floor is currently featuring a selection of items related to the exhibition *Witness: Endangered Species of North America*, now in Gallery 77. The Amber Shop on the third floor continues to offer a fabulous assortment of amber jewelry, scientific specimens, books, and other amber-

related merchandise at all price points from fifty cents to \$10,000.

The Nature Shop on the second floor continues to carry a selection of products for bird enthusiasts for the spring birding season. Of course all of the shops in the Museum stock a wonderful array of T-shirts, posters, books, jewelry, cards, and decorative objects related to the Museum's permanent collections. Come — see what the Museum shops have in store for you.

SPRING IS HERE

## Celebrate

### Mother's Day

Sunday, May 12th, from 11am to 4 pm

Serving

Carved Leg of Lamb

• Whole Roast Chicken •

Specialty Pastas, prepared by our Chef

Spring Salads and a whole lot more!

Dessert and Beverages Included!

Adults \$17.95 Children under 10, \$8.95

Reservations suggested

Call the Garden Cafe at 212-769-5865

GARDEN CAFE  
AMERICAN MUSEUM OF NATURAL HISTORY



# Museum Notes



## Hours

Exhibition Halls  
Mon.-Thurs. & Sun. .... 10:00 a.m.-5:45 p.m.  
Fri. & Sat. .... 10:00 a.m.-8:45 p.m.  
The Museum Shop  
Mon.-Thurs. & Sun. .... 10:00 a.m.-5:45 p.m.  
Fri. & Sat. .... 10:00 a.m.-7:45 p.m.  
The Junior Shop  
Mon.-Fri. .... 10:00 a.m.-4:45 p.m.  
Sat. & Sun. .... 10:00 a.m.-5:45 p.m.  
The Museum Library  
Tues.-Fri. .... 11:00 a.m.-4:00 p.m.

## The Natural Science Center

There are many wild places in the New York City area, and the Natural Science Center features live plants and animals from these local habitats. Closed Mondays and holidays.  
Tues.-Fri. .... 2:00-4:30 p.m.  
Sat. & Sun. .... 1:00-4:30 p.m.

## The Discovery Room

A hands-on examination of artifacts and specimens awaits visitors to the Discovery Room. Children must be 5 or older and accompanied by an adult. Closed weekdays and holidays  
Sat. & Sun. .... Noon-4:30 p.m.

## Museum Dining

Diner Saurus Fast Service Eatery  
Daily .... 11:00 a.m.-4:45 p.m.  
Garden Cafe  
Reservations: (212) 769-5865  
Lunch: Mon.-Fri. .... 11:30 a.m.-3:30 p.m.  
Dinner: Fri. & Sat. .... 5:00-7:30 p.m.  
Brunch: Sat. & Sun. .... 11:00 a.m.-4:00 p.m.  
Whale's Lair  
Fri. .... 3:00-8:00 p.m.  
Sat. .... Noon-8:00 p.m.  
Sun. & most holidays .... Noon-5:00 p.m.  
Snack Carts  
Sat. & Sun. .... 11:00 a.m.-4:00 p.m.

## Entrances

During Museum hours visitors can enter the building through the 77th Street entrance, the Planetarium entrance (81st Street), the first- and second-floor Roosevelt Memorial Hall entrances (79th Street and Central Park West), or through the subway entrance. **Visitors attending programs after hours can enter the building at 79th Street and Central Park West or through the parking lot at 81st Street.**

## Phone Numbers

Museum information .... (212) 769-5100  
Planetarium information .... (212) 769-5900  
Education Department .... (212) 769-5310  
Discovery Tours .... (212) 769-5700  
..... toll-free outside NY State: (800) 462-8687  
IMAX\* .... (212) 769-5034  
Development .... (212) 769-5270  
Communications .... (212) 769-5800  
Volunteer Office .... (212) 769-5566  
Museum Shop .... (212) 769-5150  
Library Services .... (212) 769-5400  
Natural History magazine .... (212) 769-5500  
Members' Choice Collection .... (212) 769-5530  
Members' Birthday Parties .... (212) 769-5542  
Planned Giving Office .... (212) 769-5119  
..... toll-free outside NY State: (800) 453-5734

## Parking

Paid parking is available for those attending Museum programs. The parking lot is open every day from 7:00 a.m. till 11:30 p.m. The parking lot has a capacity of 100 vehicles and is open on a first-come, first-served basis.  
Call the Membership Office at (212) 769-5606 for information about additional parking.

# Happenings at the Hayden

## Lectures

### Frontiers in Astronomy and Astrophysics

On Monday, May 20, Richard Binzel, professor of earth and planetary sciences at M.I.T., will present an illustrated talk, "Near Earth Asteroids — Friends or Foes?"  
This lecture is part of the *Frontiers in Astronomy and Astrophysics* series. Tickets are \$6 for Family/Dual and Higher Members and \$8 for non-Members. For more information about ticket availability and upcoming lectures, call (212) 769-5900. Use the coupon on this page to order tickets for the May lecture.

## Sky Show

### Cosmic Mind Bogglers: A Tour of Astronomical Extremes

From the recent explosive comet impact on the planet Jupiter to what happens to your body as you fall into a black hole to the first few moments after the Big Bang origin of the universe, this Sky Show takes you on a romp through the most exotic and mind-boggling phenomena in the universe.

Showtimes:  
Mon.-Fri.: ... 1:30, 2:30, 3:30, & 4:30 p.m.  
Sat.: ... 1:00, 2:00, 3:00, 4:00, & 5:00 p.m.  
Sun.: ... 1:00, 2:00, 3:00, & 4:00 p.m.  
Admission (Family/Dual and Higher Members)  
Adults: \$5  
Children (2-12): \$3  
Call (212) 769-5100 for non-Members' prices.

## Exhibit

### Interpretations of the Cosmos: A Retrospective of Art Used in Planetarium Sky Shows and Exhibits

For nearly every show and exhibit in the 60-year history of the Hayden Planetarium, art was created in the cause of science. Sketches, paintings, models, and photographs have been selected from the Hayden archives and put on display for this retrospective of space art. From renditions of the sun, moon, and planets to portrayals of galaxies and the distant universe, the art has always captured the most exciting science of the times.

## Children's Shows

Special shows for children and their families are offered every Saturday and Sunday at 11:00 a.m.  
*Teddy's Quest*, for ages 3 to 9, tells the story of a teddy bear who travels through space and discovers the answers to such questions as how stars are formed, how to identify constellations, and what it's like on the moon. Every Sunday at 11:00 a.m.  
*Wonderful Sky* is a special Sky Show for preschoolers. Children sing along with images of their favorite Sesame Street Muppets as they learn about rainbows, the phases of the moon, sunsets, and stars. Sat., May 4, at 11:00 a.m.  
*The Secret of the Cardboard Rocket*, for ages 6 to 9, explores all of the major objects in our solar system, including the sun, moon, all nine planets, and some of their satellites. Saturdays, May 11 and 18, at 11:00 a.m.  
*Robots in Space* features Lucasfilm's R2D2 and C-3PO and has been created especially for children ages 7 to 12. Together with a live host, these famous space robots take children on a journey from the earth to other planets and distant black holes. Sat., May 25, at 11:00 a.m.  
Tickets can be purchased the day of the show. Admission for Family/Dual and Higher Members is \$5 for adults and \$3 for children. Members can purchase up to four tickets at the Members' price. For additional information, call (212) 769-5900

## Laser Light Shows

Journey into another dimension where laser visuals and rock music combine to create a dazzling 3-D experience of sight and sound. Shows are presented on Friday and Saturday at 7:00, 8:30, and 10:00 p.m. For prices and show schedule, telephone (212) 769-5100.

**It's always a good idea to call before visiting the Planetarium, since prices, programs, and showtimes are subject to change without notice. For general Planetarium information, call (212) 769-5100.**

Lecture: "Near Earth Asteroids — Friends or Foes?" Monday, May 20, 7:30 p.m.  
Number of Members' tickets at \$6 (no more than 4, please): \_\_\_\_  
Number of non-Members' tickets at \$8: \_\_\_\_  
Total amount enclosed for program: \_\_\_\_  
  
Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_ Zip: \_\_\_\_  
Daytime telephone: \_\_\_\_\_  
Membership category: \_\_\_\_\_  
  
Please make check payable to the Hayden Planetarium and mail with a **self-addressed, stamped envelope** to: Lecture, Hayden Planetarium, Central Park West at 81st Street, New York, NY 10024-5192  
  
Please note that ticket orders are subject to availability and cannot be processed without telephone number and stamped, self-addressed envelope. **Do not include ticket requests or checks for American Museum programs.**



**Sun** **Mon** **Tue** **Wed** **Thu** **Fri** **Sat**

**May 1996**

**American Museum of Natural History**



**Leonhardt People Center**

May is Asian/Pacific American Heritage Month at the Center. Programs will take place there on three weekends, May 4 and 5, 18 and 19, and 25 and 26. The Center will be closed on Mother's Day weekend. For information on programs and events, call (212) 769-5315.

**1 7:30 p.m.** Amateur Astronomers Association of New York. Galactic Archaeology with the Hubble Space Telescope. Speaker, Michael Rich, Columbia University. Kaufmann Theater. Free.

**2**

**Carry the Card!**

Please help us serve you more efficiently by bringing your membership card with you each time you visit. Your entry into the Museum is easier when you do. Thanks!

**3 7:00 p.m.** Time Travelers' Museum-Theater. *Four Who Dared*. Tickets sold out.

**4 9:00 a.m.** Spring Flowers and Trees in Central Park. Education Dept. guided walk. Call 769-5310 for information.

**7:00 p.m.** Time Travelers' Museum-Theater. *Four Who Dared*. Tickets sold out.

**11 7:00 p.m.** Time Travelers' Museum-Theater. *Four Who Dared*. Tickets sold out.

Leonhardt People Center closed this weekend.

**Renewing Your Membership?**

The Membership Desk in the Roosevelt Rotunda is now open every day, from 10:00 a.m. to 4:45 p.m. Just bring your renewal notice and a check or major credit card.

**18 2:00 p.m.** Discovering Washington Heights. Members walking tour. Tour guide, Joyce Gold. \$25. Family/Dual and Higher Members only.

**7:00 p.m.** Time Travelers' Museum-Theater. *Four Who Dared*. Tickets still available. \$25 for Members, \$30 for non-Members.

**14**

**15 7:00 p.m.** *The Mind's Eye: Optical Illusion and Mental Deception*. Illustrated lecture. Speaker, Howard Topoff. Kaufmann Theater. \$6 for Members; \$9 for non-Members.

**16 7:00 p.m.** *Tangible Visions: Shamanism and Northwest Coast Art*. Education Department lecture series, part one. Call 769-5310 for information.

**12** Mother's Day  
**2:00 p.m.** New York Shell Club. Room 319. Free.

**19 2:00 p.m.** New York Paleontological Society. Room 319. Free.

**20 7:30 p.m.** *Near Earth Asteroids — Friends or Foes?* Illustrated talk. Speaker, Richard Binzel, professor of earth and planetary sciences at M.I.T. Planetarium Sky Theater. \$6 for Members; \$8 for non-Members.

**21 7:00 p.m.** New York Entomological Society. Room 319. Free.

**22 5:30 p.m.** Workshop: Collecting and Identifying Insects, first session. Conducted by Caroline Chaboo. Room 319. \$40. Family/Dual and Higher Members only.

**23 7:00 p.m.** New York Microscopical Society. Room 319. Free.

**7:00 p.m.** *Tangible Visions: Shamanism and Northwest Coast Art*. Education Dept. lecture series, part two. Call 769-5310 for information.

**26** Last chance to see *Powwow* Now in the Akeley Gallery.

**27** Memorial Day (observed)

**28 7:30 p.m.** Linnaean Society. *JD Workshop*. Some of the society's best field experts prepare participants for summer Linnaean Theater. Free.

**29 5:30 p.m.** Workshop: Collecting and Identifying Insects, second session. Conducted by Caroline Chaboo. Room 319. \$40. Family/Dual and Higher Members only.

**30**

**31 6:30 p.m.** Members' tour: *Insects — Masters of the Earth*. Guide, Robert Campanile. Free. Family/Dual and Higher Members only.





# ROTUNDA

For Family/Dual and Higher Members of the American Museum of Natural History

Vol. 23, No. 6 June 1996

## A Nineteenth-Century Naturalist Revisited

**Purposeful Traveler:  
Titian Ramsay Peale**

**Library Gallery, Fourth Floor  
Opens May 31**



Left, self-portrait, oil on canvas, circa 1835; right, a lithograph by Peale.



An exhibition tracing the life work of a passionate field observer and collector, a skilled artist, and an intrepid explorer is now on view in the Library Gallery. Titian Ramsay Peale (1799–1885), termed a “forgotten naturalist” by Frederic Lucas (Museum director, 1911 to 1923), began his career at the age of eighteen, first on an expedition to collect flora and fauna in Florida and the Sea Islands of Georgia and later accompanying the Long expedition to the Rocky Mountains as assistant naturalist.

Peale inherited a legacy of both artistic talent and passion for natural history from his father, founder of the Peale Museum in Philadelphia, often called the first science museum in America. From 1822 to 1838, apart from holding administrative positions in his father’s museum, he collected specimens and made drawings for Charles Lucien Bonaparte’s four-volume *American Ornithology*, drew some of the plates for Thomas Say’s three-volume *American Entomology*, and traveled to the interior of Colombia to collect specimens. During this period he was also represented at exhibitions of the Pennsylvania Academy of the Fine Arts with watercolor drawings of animals.

The most promising assignment of his career came when he was appointed as naturalist on the U.S. South Seas Surveying and Exploring Expedition, known as the Charles Wilkes expedition. Peale spent four years on this assignment, circling the globe collecting specimens and artifacts and later contributing illustrations

to the atlas of the expedition report on mammalogy and ornithology. The controversy surrounding the reception of this volume, however, was a major disappointment in Peale’s life.

Later Peale worked as an examiner in the U.S. Patent Office, dabbled in the emerging techniques of photography, and continued painting and working on his manuscript of butterflies. He died at the age of 85, leaving his magnum opus unpublished.

On display at the Library Gallery will be many Peale materials that have not been previously exhibited elsewhere. Four years ago the Library received a substantial gift of some items and a long-term loan of others from the descendants of Peale’s second wife, the Shehadi family.

The exhibition will include a selection of Peale’s natural history illustrations, oil paintings, and original photographs, including salt prints, as well as memorabilia he collected from the South Seas. A selection of color illustrations from his unpublished “The Butterflies of North America, Diurnal Lepidoptera, Whence They Come; Where They Go; and What They Do,” and the prospectus for Peale’s *Lepidoptera Americana* will also be on view.

## Okavango: Africa’s Last Eden

was published to great acclaim two years ago. The book of photographs and text by Frans Lanting, one of the world’s leading wildlife and wilderness photographers, emerged from Lanting’s voyage to the bleak Kalahari Desert of northern Botswana. George Schaller, writing in *The New York Times*, said the photographs “take creatures that have become ordinary and familiar and transform them into haunting new visions.” The exhibit of the same name, which has already toured Europe and elsewhere, will open August 2 in the Museum’s Akeley Gallery. See next month’s issue of *Rotunda* for more details. Shown here: a yellow-billed stork with nesting material.



Frans Lanting ©



## Second Notices

The following programs were announced in last month's *Rotunda*. Unless otherwise specified, a limited number of tickets are still available. For detailed information on these listings, see the May issue of *Rotunda*. These programs are open only to Family/Dual or Higher Members unless a non-Members' price is specified.



Use the Tours and Workshops Coupon on page 5 to register for the programs below:

### The 96th St. Mosque

Members' walking tour of the mosque at the Islamic Cultural Center, led by Mustafa

Abadan. Saturday, June 15; 11:00 a.m.-12:30 p.m. \$20.

### Molding and Casting Fish Fossils

Members' workshop, conducted by Pamela Popeson. Saturday, June 22; 10:00 a.m.-1:00 p.m. \$50.

### Art of the Mask

Members' guided tour, led by Susan Shackter. Friday, June 28; 7:00-8:30 p.m. Free of charge to Family/Dual and Higher Members.

Use the June Members' programs coupon on page 3 to register for the programs below:

### Flagging Blennies

Slide-illustrated lecture by Museum ichthyologist C. Lavett Smith. Wednesday, June 5; 7:00-8:30 p.m. \$6 for Members, \$9 for non-Members.

### Lecture Series: Hall of Vertebrate Origins

"The World of Vertebrate Fossils." Speaker, Eugene S. Gaffney. Wednesday, June 12.

"Fossil Fishes: So Much Diversity, So Little Change." Speaker, John G. Maisey. Wednesday, June 19. Both lectures, 7:00-8:30 p.m. \$6 for Members (\$10 for the series) and \$9 for non-Members (\$16 for the series).

### Danny and the Dinosaur Go to Camp

We regret that Syd Hoff's "chalk talk" program has been canceled.



Rocky outcrops are often hidden delights in Central Park.

### Education Department Program

### Exploring Urban Geology and Nature

Tuesdays and Thursdays, July 16, 18, 23, and 25  
5:30-8:30 p.m.  
\$35, limited to 30 people

Using maps as a basic tool of discovery, explore the geology and nature of New York's Central Park through a combination workshop, field trip, and lecture.

This unusual four-session series directed by Sidney Horenstein, coordinator of environmental public programs, begins with a tour of the Museum's exhibits that pertain to our own New York area.

With this background information the group will then visit Central Park, breaking up into small teams who will make their own topographic maps of sections of the park, learning how to plot rock outcrops, plants, lampposts, and other features.

In the third and fourth sessions, participants will be shown how to use and interpret the maps they have created. There will also be an introduction to geologic maps. The program concludes with a detailed exploration of several additional rock outcrops in Central Park to see how they are related to one another.

To register, send your check payable to the American Museum of Natural History, Central Reservations Department, American Museum of Natural History, Central Park West at 79th St., New York, N.Y. 10024-5192.

## From the Volunteer Department

### The Earth as a Peppercorn: A Planet Walk

Sunday, June 16  
1:00-2:30 p.m.

It's difficult to picture the dimensions of the solar system — the planets are relatively small and distances between them almost absurdly great. A model whose scale is true to size and distances, however, was devised in 1969 by astronomer/teacher Guy Ottewill.

The planet walk is a 1,000-yard model scaled to the sun and laid out by participants pacing out the distances, using natural objects to stand in the place of the planets. In this scale model the earth, in fact, is a peppercorn.

Join guides Robert Campanile and Phil Sollecito on this journey of discovery around the grounds of the Museum, beginning on the front steps of the Planetarium at 81st Street and Central Park West. **The tour is free and no registration is necessary. Call the Volunteer Office at (212) 769-5566 if you have any questions.**

## IMPORTANT NOTICE

### New Date for Members' Preview — Hall of Vertebrate Origins

The Museum has decided to move up the date for the opening of the Hall of Vertebrate Origins and the Miram and Ira D. Wallach Orientation Center on the fourth floor. The new date for the opening to the public is June 8. We regret that we were unable to inform our readers of this change before our May issue of *Rotunda* went to press. For those who look forward to our Members' Previews, however, we have been able to reschedule that

event for Friday, June 7, from 4:00 to 9:00 p.m.

As always, Volunteer Explainers will be on hand to answer questions and point out items of particular interest. No reservations are necessary; your valid membership card is your ticket of admission.

We sincerely regret any inconvenience this change in schedule presents to Members, and we look forward to seeing you at the Preview of the new fourth-floor halls.

## ROTUNDA

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June 1996

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## Members' Memo

# New Program Reservation and Ticketing Process Goes On-line

The Museum's new computerized Central Reservations Department (see the May issue of *Rotunda*) is on-line and ready to handle every aspect of program reservations and ticketing for all Museum departments — including our own Membership Office.

This is the last time that separate coupons from our office, the Education Department, or the Planetarium will appear in the pages of *Rotunda*. Instead, beginning in July, the newsletter will carry a Central Reservations Department unified coupon listing the programs and courses advertised each month. Members will send their checks or money orders together with

the new coupon directly to Central Reservations, which will also answer all telephone requests for ticket confirmation or information.

The most convenient aspect of the new system for our Members, however, will be eliminating the need for sending separate checks and using coupons — if they wish. Members can use their credit cards for instant phone reservations instead.

Our office will continue receiving and processing coupon ticket requests for Membership programs until the changeover. We will always be available during business hours to answer calls for information about our programs. Look for more detailed instructions on how to use the new Central Reservations system and the coupon that will appear in the July/August issue of *Rotunda*.

## Membership Services Information

For Museum events

only ..... (212) 769-5606

For Family/Dual membership

inquiries ..... (800) 283-AMNH

## Exhibit of the Month

### Skull of an Herbivore, Feet of a Carnivore

One of the most mysterious of extinct mammals was the chalicothere (pronounced kal'-ik-o-theer). *Moropus elatus*, the species shown here, is a specimen on display in the perissodactyl section of the Museum's fourth-floor fossil mammal halls.

In the division of animals, the order Perissodactyla refers to hooved mammals such as horses, which have an uneven number of toes on each foot and simple stomachs. When you take a look at the feet of this specimen, you'll notice that there are three toes on each foot and that, instead of hoofs, this animal has claws. A unique feature of chalicotheres, the claws have inspired much speculation about how they were used. The most



common theories revolve around digging, defense, or feeding, the latter favored most by recent research. Chalicotheres have flat, grinding cheek teeth (molars) that indicate they were plant eaters. Perhaps *Moropus elatus* reared up on its sturdy hind limbs and used its long forelimbs and claws to grasp for high tree branches, bringing them within reach of the mouth.

*Moropus* lived 22 million years ago. Among the first

*Moropus* finds were a skull that was disassociated from the rest of the skeleton, with teeth resembling those of the herbivorous horse and feet with claws resembling the appendages of a carnivore. Scientists assumed they had evidence from two different animals. Only after an integral skeleton was found with both skull and feet did they realize that both these features belonged to one and the same animal.

— Erica Okone

## At the Museum Shops

The Museum Shops are celebrating the opening of the Hall of Vertebrate Origins on the fourth floor with the introduction of a new line of products decorated with extinct marine and flying reptiles and fossil fishes.

Our 100 percent cotton polo shirt features an embroidered pteranodon and is offered in plum, sage green, and blue (\$35; Members

\$31.50). The shirt coordinates with our new baseball cap, which features the same embroidered pteranodon (\$19.50; Members \$17.55).

A new silk tie will be offered (\$35; Members \$31.50) with an all-over pattern of extinct fish, both in their skeletal forms and as they may have looked in life, rendered by one of our scientific illustrators. Another silk

item is a colorful thirty-six-inch-square fossil fish scarf (\$75; Members \$67.50).

In children's wear, new T-shirts will feature the image of a pteranodon in Day-Glo colors. Other new additions include adult T-shirts, glassware, and jewelry. All of these new items will be featured in both of our fourth-floor shops, Dinostore and Shop on 4.

## June Members' Programs Coupon

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Daytime telephone: \_\_\_\_\_

Membership category: \_\_\_\_\_

Total amount enclosed: \_\_\_\_\_

Please make all checks payable to the American Museum of Natural History and mail with a **self-addressed, stamped envelope** to: June Members' Programs, Membership Office, American Museum of Natural History, Central Park W. at 79th Street, New York, NY 10024-5192. **Telephone reservations are not accepted.**

**Unless otherwise indicated, no more than eight tickets may be ordered for a program. Family/Dual Members are entitled to four tickets per program at the Members' price. Higher Members are entitled to six tickets, and Associate/Individual Members are entitled to one ticket.**

### Flagging Blennies

Wednesday, June 5, at 7:00 p.m.

Number of Members' tickets at \$6: \_\_\_\_\_

Number of additional tickets at \$9: \_\_\_\_\_

Total amount enclosed for program: \_\_\_\_\_

### Lecture Series

#### The World of Vertebrate Fossils

Wednesday, June 12, at 7:00 p.m.

Number of Members' tickets at \$6: \_\_\_\_\_

Number of additional tickets at \$9: \_\_\_\_\_

#### Fossil Fishes: So Much Diversity, So Little Change

Wednesday, June 19, at 7:00 p.m.

Number of Members' tickets at \$6: \_\_\_\_\_

Number of additional tickets at \$9: \_\_\_\_\_

Number of Members' tickets for both lectures at \$10: \_\_\_\_\_

Number of additional tickets for both lectures at \$16: \_\_\_\_\_

Total amount enclosed for program: \_\_\_\_\_

#### The Piltdown Affair

Monday, July 8, at 7:00 p.m.

Number of Members' tickets at \$7: \_\_\_\_\_

Number of additional tickets at \$10: \_\_\_\_\_

Total amount enclosed for program: \_\_\_\_\_

#### The Empire State Building:

##### The Making of a Landmark

Wednesday, July 24, at 7:00 p.m.

Number of Members' tickets at \$7: \_\_\_\_\_

Number of additional tickets at \$10: \_\_\_\_\_

Total amount enclosed for program: \_\_\_\_\_

**NOTE: No refunds/exchanges. Allow two weeks for your mail order. Call (212) 769-5606 for ticket availability or to verify receipt of your order. If less than two weeks remain, tickets can be purchased at the 77th St. entrance Members' Desk on weekends and holidays.**



## Members' Day Trip

### Liberty Science Center

**Saturday, July 20**  
**8:30 a.m.-4:30 p.m.**  
**\$50, and open only to Family/Dual and Higher Members**

Plan a family trip to the Liberty Science Center, where you can challenge your imagination in an atmosphere of relaxation and fun.

Participants will be taken by bus from the Museum to the center, which is located in Jersey City, and tickets will be made available for the Kodak Omni Theater — at 125 feet high, the world's largest domed IMAX theater — and the laser-show Joseph D. Williams Theater. The Omni Theater will be showing *Special Effects*, a film journey accompanying George Lucas' Industrial Light and Magic Team as they produce special effects for the twentieth-anniversary edition of *Star Wars*. The Williams Theater is presenting *Brain Trek: A 3-D Laser Journey*.

Visitors can create their own animation at the center, make a laser beam dance, and

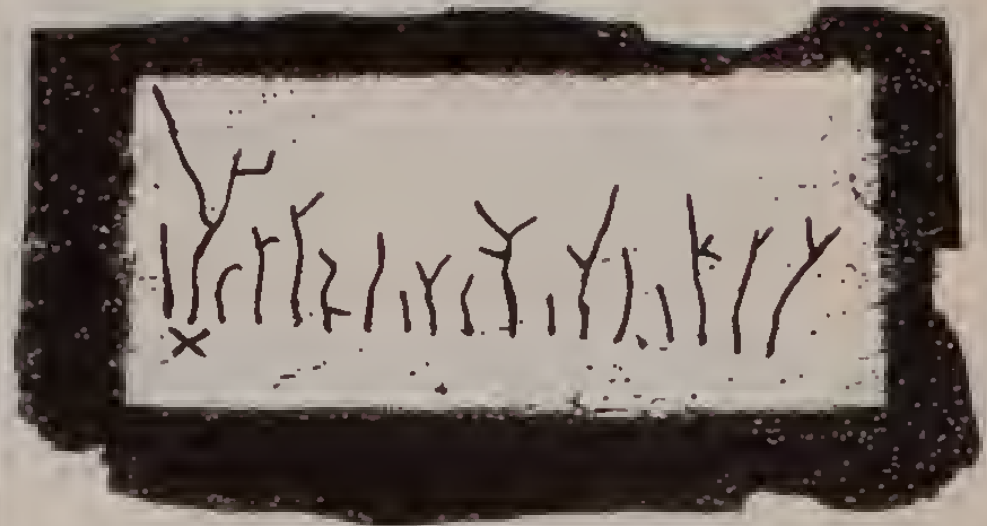
view more than 250 dazzling science and technology exhibits. Staff members present live shows and demonstrations throughout the building all day long.

The Health Floor features a demonstration of thermography that transforms faces into a mysterious collage of colors, and on the Invention Floor a special show entitled "Bats: Masters of the Night" will be on display. In addition to its Bug Zoo, where participants can see and handle giant insects (the handling is strictly optional), the Environment Floor will be hosting a new show beginning July 4, "Fangs: Poisonous Snakes of North America."

**Use the coupon on page 5 to register for this day trip, and please note that all children under 16 must be accompanied by an adult.**

## The Piltdown Affair: A Mystery Solved

**Monday, July 8**  
**7:00 p.m., Kaufmann Theater**  
**\$7 for Members, \$10 for non-Members**



*The puzzle as it originally appeared in the 1912 serialization of The Lost World in Strand magazine.*

Join Robert Anderson, earth science editor at *Natural History* magazine, for a slide-illustrated lecture on the solution to one of the greatest hoaxes ever perpetrated in the world of science.

In the beginning of this century, fragments of a human skull with a prominent apelike jaw were found in East Sussex, England. The find, which came to be known as the Piltdown man, provided scientists with a long-awaited missing link in the evolutionary progression of primitive man. Forty years later the skull was shown to be a fraud. Scientists and science writers have been fascinated

with the hoax ever since — who planted the skull and jawbone, and why?

The lecture will reveal that the creator of the master detective Sherlock Holmes, Sir Arthur Conan Doyle, was the perpetrator. Anderson's solution, published this spring by the California Academy of Sciences, builds on the separate work of two amateur detectives. In 1983 American anthropologist John Winslow became the first to make a serious case against the famous British author.

Winslow, however, overlooked a crucial piece of evidence hidden in Doyle's 1912

novel, *The Lost World*. It comes in the form of a puzzle identified by Richard Milner, also an editor at *Natural History* magazine. Anderson's solution to the puzzle provides the smoking gun.

Participants will be provided with the pertinent pages of the book's text and the puzzle as it appeared in its first published form. As members of the audience follow along, they can see for themselves how the clues left by Conan Doyle come together to solve the mystery. Copies of a recent edition of *The Lost World* will also be on sale. **Use the coupon on page 3 to register.**

## Members' Guided Tour

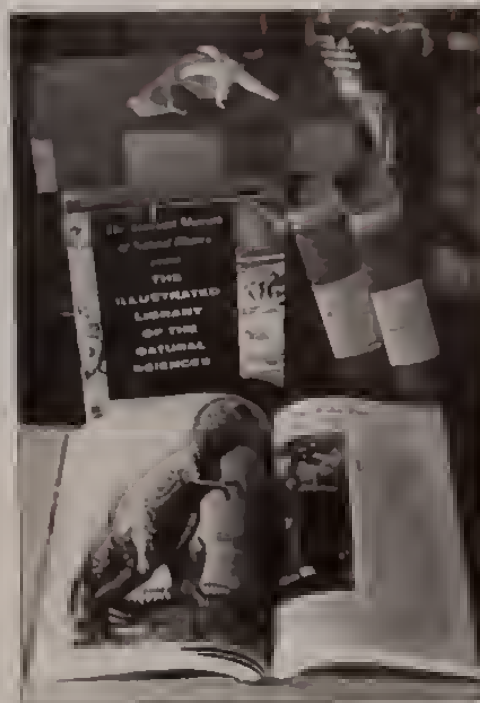
### The Illustrated Library of the Natural Sciences

**Two Fridays, July 12 and 19**  
**6:00 p.m.**  
**Free, and open only to Family/Dual and Higher Members**

In 1958 the Museum sponsored and published a four-volume, hardback set of books called *The Illustrated Library of the Natural Sciences*. Magnificently illustrated with more than three thousand pictures, the volumes drew on the artifacts, specimens, and dioramas that fill the halls of the Museum. Every field of natural science was represented in categories arranged from A through Z. Some of these sets, a real treasure for book lovers, can still be found in bookshops around the city.

In a two-evening tour series, divided into subjects from A through M and from N through Z, guide Robert Campanile celebrates this all-but-forgotten work, now long out of print, by leading participants through the Museum's halls in search of highlights from its pages. The entry on the giant sequoia tree trunk, for example, which can be seen in the first-floor Hall of North American Forests, also includes information on the Cherokee because the genus was named after Sequoia, a member of that Native American group.

The tours will emphasize the fascinating ways in which science can be illustrated in books and, in particular, how



the material included in these volumes makes it possible to look at the Museum's exhibits in a totally new way.

**Use the coupon on page 5 to register for this two-part tour.**

## Provide For Your Future. . .



### . . . And Enrich The Lives Of Others.

Through a gift to the American Museum of Natural History that provides lifetime income, you promote preservation and extend understanding of the natural world for generations to come and, at the same time, provide for your own retirement. If you are age 55 or older, you can:

- receive income for life, for yourself and/or a loved one;
- enjoy an immediate income tax deduction;
- decrease or eliminate capital gains tax when low-yield, highly appreciated stocks are sold to re-invest for higher income;
- reduce the cost — through the combined benefits of an income stream and an immediate income tax deduction — of a gift important to the Museum's future.

For more information, please call toll-free 1 (800) 453-5734 or complete and return this confidential reply form to Jane C. Palmer, Director of Planned Giving, Office of Development, American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192.

Please send me information on gifts that provide lifetime income, tax savings, and other benefits, while enriching the lives of others:

Name: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
 Phone (home): \_\_\_\_\_ (office): \_\_\_\_\_

Tax and other financial benefits may depend on age.

My (our) age(s): \_\_\_\_\_

Your reply is confidential and implies no obligation.

6/96



Members' Walking Tour

Stanford White's New York

Saturday, July 13  
11:00 a.m.-1:00 p.m.  
\$20, and open only to Family/Dual and Higher Members

Join architectural historian David Garrard Lowe for a walking tour of buildings, monuments, and sites in Greenwich Village associated with the life and work of architect Stanford White. White's building design embodies the peak of Beaux-Arts elegance in the New York of the late nineteenth century. His greatest gift was adapting the best of European classical architecture as a design base for modern buildings. Surviving examples of his work include the Washington Square Arch, the old Tiffany Building, and the Payne Whitney mansion. Participants in this tour will meet at the Washington

Square Arch and explore the Greenwich Village area, visiting White's birthplace, Judson Church, and the Peter Cooper monument. Lowe is a lecturer, broadcaster, and writer in the fields of architecture, cultural history, and urban planning. His many books include *Stanford White's New York*. He is also president of the Beaux Arts Alliance, an organization dedicated to the celebration of the cultural links between the United States and France.

Use the coupon on this page to register, and please note that tickets are available only by mail.

Members' Day Trip

The Raptor Trust

Wednesday, July 10  
9:00 a.m.-2:00 p.m.  
\$40, and open only to Family/Dual and Higher Members  
Appropriate for ages 8 and older

Visit one of the nation's most comprehensive privately funded avian facilities, located on a 14-acre wooded tract of land adjacent to the 6,700-acre Great Swamp Wildlife Refuge in Morris County, New Jersey.

The Raptor Trust, founded close to three decades ago by Len and Diane Soucy, is run by a dedicated staff of five and more than eighty volunteers who care for and rehabilitate orphaned and injured birds and return them to the wild whenever possible. Although their name is "raptor," the trust, which has been used as a model throughout the nation, accepts all wild birds in need of help. But they hope people might become more tolerant of predatory birds by becoming familiar with them. "We want people to see these birds," their prospectus says, "to ask questions about them, to learn about them, and ultimately to understand that they are important parts of the living world."

The Members' guided tour of the center's aviaries and facilities will show how its residents, especially orphaned songbirds who need almost



Red-tailed hawk, drawn by Louis Agassiz Fierres

constant care to stay healthy, are raised with techniques designed to avoid dependence on humans and assure the young a reasonable chance of survival on release.

The tour includes a slide-illustrated talk by one of the

Raptor Trust staff. Transportation between the Museum and the site at Millington, New Jersey, will be by bus. Participants should dress comfortably and bring a bag lunch. Use the coupon below to register.

Members' Day Trip

How Water Works

Wednesday, July 17  
8:30 a.m.-5:30 p.m.  
\$50, and open only to Family/Dual and Higher Members

Members can explore the city's water-supply system, a marvel of modern-day engineering that provides the best-quality municipal drinking water in the world.

Led by Sidney Horenstein, the Museum's coordinator of environmental public programs, this day-long program will begin with an extensive tour of the Ward's Island Pollution Control Plant, where the water we've used ends up for cleaning. This will be followed by a look at the Jerome Park Reservoir in the Bronx and its Pilot Filtration Plant.

The second part of the tour takes participants to the place where the water originates — the Croton Reservoir and Dam in Westchester County — to admire the dam's structure and architectural beauty and take a look at the reservoir's brand new control chamber. Horenstein, who leads the tours from start to finish, will discuss the ecology of reservoirs and explain Croton's importance to New York



A view of the Croton Reservoir

City's water-supply system. Here is an opportunity to learn firsthand about the issues surrounding the proposal to improve the quality of Croton Reservoir water by constructing a full-scale filtration plant at Jerome Park.

Representatives from the Department of Environmental Protection will be on hand at all the sites to explain aspects of the system. The fee for this

program includes transportation and educational presentations only; there is no admission charge for tours of the sites. No food will be available, so be sure to bring a bag lunch and beverages.

Use the coupon on this page to register for the trip, which is appropriate for participants ages 16 and older.

**Tours and Workshops.** Use this coupon to register for *Tour of the 96th St. Mosque*, *Molding and Casting Fish Fossils*, *Art of the Mask Tour*, *The Illustrated Library of the Natural Sciences*, Members' day trip to the *Liberty Science Center*, Members' day trip to the *Raptor Trust*, *Stanford White's New York* walking tour, *How Water Works* Members' day trip, and *The Empire State Building* Members' walking tour.

Name(s) of program(s): \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Number of tickets and price (please indicate which program if more than one): \_\_\_\_\_

\_\_\_\_\_

Total amount enclosed: \_\_\_\_\_

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Daytime telephone: \_\_\_\_\_

Membership category: \_\_\_\_\_

Please make check payable to the American Museum of Natural History and mail with a **self-addressed, stamped envelope** to: **Tours and Workshops**, Membership Office, American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192.



## Divine Magic: Lecture and Performance Series

### Film and Performance Conclude Year-Long Series

The Education Department will wind up its *Divine Magic* series on the first two Sundays in June with a film screening and performances of spirit dances from different cultures — "Spirits in Sacred Dance."

People throughout history have attempted to communicate with the spirit world. Every society and culture, no matter how diverse their religious system, professes some belief in life after death, and it was from these beliefs that the idea of ghosts evolved.

The movie *Ghosts: The Restless Dead* delves into this great eternal mystery. From classical Greece to contemporary Ireland, with stops along the way in England, Japan, and at Abraham Lincoln's White House, it traces the influence of these ephemeral

creatures on people's lives. Narrated by Stephen Rea, *Ghosts: The Restless Dead* relates some of the world's most remarkable ghost stories, delves into ghost traditions the world over, both real and literary, and explores the many devices used to communicate with the other side, from Ouija boards to spirit photographs.

This free film series has been supported by a grant from Non Fiction Films, Inc. and is a presentation of Cafe/Little Bird Production, with the support of Eurimages.

*Divine Magic: Lecture and Performance Series* will close with "Spirits in Sacred Dance," a performance illustrating how Asian, African, and Native American cultural

traditions relate to spirits and ghosts through ritual worship and shamanism. This dance program is produced by the World Institute for Cultural Diversity through Sacred Art and Practices.

Both the film and the performance are free and no registration is necessary but seating availability is limited; admission is on a first-come-first-served basis.

**Both programs will be held in the Kaufmann Theater. The film screening will take place on Sunday, June 2, with shows at 2:00 and 4:00 p.m., "Spirits in Sacred Dance" on Sunday, June 9, with performances at 2:00 and 4:00 p.m. If you have any questions, call (212) 769-5310.**

## Members' Birthday Parties at the Museum



Craig Chesak

Children can celebrate their birthdays at the Museum, where we are celebrating a birthday of our own — it's the first anniversary of the return of the dinosaurs to the fourth floor. With a dinosaur theme party, the children are given a special guided tour of the exhibits, and in the party room they can handle fossil casts, play dinosaur games, learn how fossils are formed, and make one of their own. To avoid the crowds, the best times to celebrate a dinosaur party are Wednesday and Friday afternoons from 3:30 to 5:30 p.m. and on Saturday and Sunday mornings from 11:00 a.m. to 1:00 p.m.

Members' birthday parties are geared to children between the ages of five and ten, and families can choose fossil mammals, African mammals, ocean dwellers, or Native Americans for their party theme.

The parties are available only to Members at the Contributor (\$100) level and higher and last two hours. The group should be no fewer than 10 and no more than 20. The fee is \$525 for

groups from 10 to 15 and \$600 for groups from 16 to 20. It covers all materials and the services of Museum party coordinators, who help organize the party to suit the individual tastes of each child and handle everything from candles to party favors — parents need only bring the cake and help escort the guests.

**For more information, call (212) 769-5542 or fax (212) 769-5427.**

The Membership Office would like to thank the following young Members who celebrated their birthdays here recently: James Berry, Ross Klein, Daniel Radwoner, Augie LaSala, Kolbe Handal, David and Daniel Robi, Kaukala Chaudhry, Sarah Stengel, Brett Weiss, Benjamin Nissan

## Lecture and Members' Walking Tour

### The Empire State Building: The Making of a Landmark

**Lecture — Wednesday, July 24  
7:00 p.m., Kaufmann Theater  
\$7 for Members, \$10 for non-Members**

The culture and politics of New York City in the 1920s fostered the right environment for envisioning the construction of the world's tallest building in the heart of the city. General Motors' financial wizard John J. Raskob teamed up with state governor Al Smith to accomplish its construction, and the Empire State took less than a year to rise — at the astonishing rate of four and a half floors per week.

Planned during the boom years of the twenties, the new skyscraper opened in the bust of the thirties and soon became known as the "Empty State Building." Despite all odds, the building has endured and even flourished. Now, sixty-five years later, the Empire State Building is nothing less than a local and national icon.

John Tauranac, a New York City historian,

mapmaker, and tour guide, will delve into these and other details of the building's design, construction, and history in a slide-illustrated talk. Tauranac, the author of the recently published *The Empire State Building: The Making of a Landmark*, has lectured on New York history and architecture at NYU's School of Continuing Education, where he is adjunct associate professor of art, and has led numerous tours of the city for groups including the Municipal Art Society and the 92nd Street Y. He is perhaps best known as the chief designer of the New York City subway map, published in 1979 and still in use.

Copies of his new book will be on sale at the lecture, which will conclude with a book signing. **Use the June Members' Coupon on page 3 to register for this lecture.**

**Walking Tour —  
Wednesday,  
July 31  
6:00-8:30 p.m.  
\$20, and open only  
to Family/Dual and  
Higher Members**

Members can combine a lecture on the Empire State Building with a walk around the building's neighborhood and a tour of its public spaces and special features.

This walking tour will culminate with a view from the top.

where participants can experience the sensation of the city opening like a map at their feet. Tauranac, a recognized authority on the city's architecture and buildings, will point out natural and man-made features of the metropolitan landscape and the other distinguished buildings that one by one held the laurel as the world's tallest: the Metropolitan Life, Woolworth, and Chrysler buildings and the World Trade Towers.

**Use the coupon on page 5 to register for this tour.**

## Kids eat free!

Present this ad to receive one free Junior Meal per child under 10 for every adult dinner entree purchase.

Each Junior Meal includes one entree and a beverage.

### Junior Menu

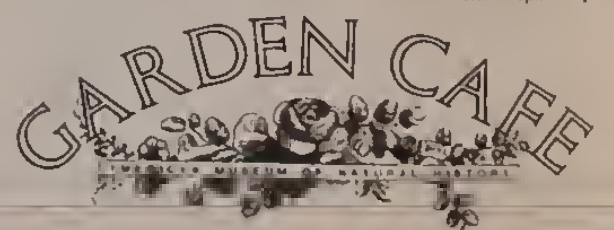
Choice of Soft Drink, Juice, Milk or Chocolate Milk

<b>Dino Pizza</b> An individual Cheese Pizza	<b>"Moo"-seum Classic</b> Grilled American Cheese, French Fries	<b>Chicken Dino</b> Nuggets, French Fries
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**Foot Long  
Hot Dog**  
French Fries

**"Meal-o-saurus"**  
1/4 lb. Hamburger,  
French Fries

\*Offer expires September 3, 1996





# Museum Notes

<b>Hours</b>	
<b>Exhibition Halls</b>	
Mon.-Thurs. & Sun.	10:00 a.m.-5:45 p.m.
Fri. & Sat.	10:00 a.m.-8:45 p.m.
<b>The Museum Shop</b>	
Mon.-Thurs. & Sun.	10:00 a.m.-5:45 p.m.
Fri. & Sat.	10:00 a.m.-7:45 p.m.
<b>The Junior Shop</b>	
Mon.-Fri.	10:00 a.m.-4:45 p.m.
Sat. & Sun.	10:00 a.m.-5:45 p.m.
<b>The Museum Library</b>	
Tues.-Fri.	11:00 a.m.-4:00 p.m.

**The Natural Science Center**  
There are many wild places in the New York City area, and the Natural Science Center features live plants and animals from these local habitats. Closed Mondays and holidays.  
Tues.-Fri. 2:00-4:30 p.m.  
Sat. & Sun. 1:00-4:30 p.m.

**The Discovery Room**  
A hands-on examination of artifacts and specimens awaits visitors to the Discovery Room. Children must be 5 or older and accompanied by an adult. Closed weekdays and holidays.  
Sat. & Sun. Noon-4:30 p.m.

**Museum Dining**  
Diner Saurus Fast Service Eatery  
Daily 11:00 a.m.-4:45 p.m.  
Garden Cafe  
Reservations: (212) 769-5865  
Lunch: Mon.-Fri. 11:30 a.m.-3:30 p.m.  
Dinner: Fri. & Sat. 5:00-7:30 p.m.  
Brunch: Sat. & Sun. 11:00 a.m.-4:00 p.m.

**Whale's Lair**  
Fri. 3:00-8:00 p.m.  
Sat. Noon-8:00 p.m.  
Sun. & most holidays Noon-5:00 p.m.  
**Snack Carts**  
Sat. & Sun. 11:00 a.m.-4:00 p.m.

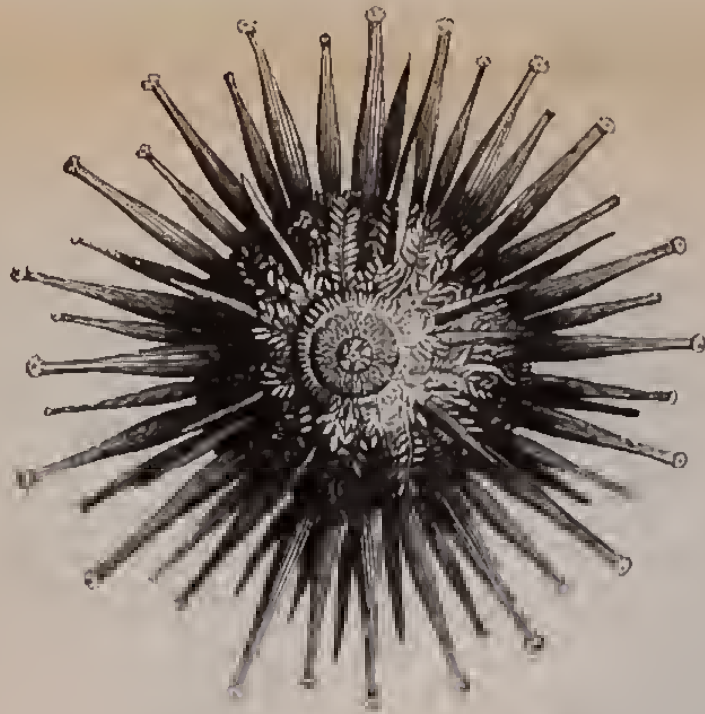
**Entrances**  
During Museum hours visitors can enter the building through the 77th Street entrance, the Planetarium entrance (81st Street), the first- and second-floor Roosevelt Memorial Hall entrances (79th Street and Central Park West), or through the subway entrance. **Visitors attending programs after hours can enter the building at 79th Street and Central Park West or through the parking lot at 81st Street.**

**Phone Numbers**  
Museum information (212) 769-5100  
Planetarium information (212) 769-5900  
Education Department (212) 769-5310  
Discovery Tours (212) 769-5700  
.....toll-free outside NY State: (800) 462-8687  
IMAX® (212) 769-5034  
Development (212) 769-5270  
Communications (212) 769-5800  
Volunteer Office (212) 769-5566  
Museum Shop (212) 769-5150  
Library Services (212) 769-5400  
Natural History magazine (212) 769-5500  
Members' Choice Collection (212) 769-5530  
Members' Birthday Parties (212) 769-5542  
Planned Giving Office (212) 769-5119  
.....toll-free outside NY State: (800) 453-5734  
Central Reservations (212) 769-5200



**Parking**  
Paid parking is available for those attending Museum programs. The parking lot is open every day from 7:00 a.m. till 11:30 p.m. The parking lot has a capacity of 100 vehicles and is open on a first-come, first-served basis.  
Call the Membership Office at (212) 769-5606 for information about additional parking.

## Happenings at the Hayden



### Sky Show

**Cosmic Mind Bogglers:  
A Tour of Astronomical Extremes**

**On View Through June 23**  
From the recent explosive comet impact on the planet Jupiter to what happens to your body as you fall into a black hole to the first few moments after the Big Bang origin of the universe, this Sky Show takes you on a romp through the most exotic and mind-boggling phenomena in the universe.

**Windows to the Universe**

**Beginning June 26**  
This sky show illustrates how astronomers use not only visible light but also gamma rays, X-rays, microwaves, and radio waves to unlock the secrets of the universe.

Admission (Family/Dual and Higher Members):  
Adults: \$5  
Children (2-12): \$3

Call (212) 769-5100 for non-Members' prices.

### Exhibits

#### Comet Rendevous

In conjunction with the appearance of Comet Hyakutake, the Planetarium is presenting a special exhibition illustrating what the core of a comet looks like. The exhibition features a working model of a comet nucleus that releases jets of gas in the same way an actual comet does as it approaches the sun.

**Interpretations of the Cosmos:  
A Retrospective of Art Used in  
Planetarium Sky Shows and Exhibits**

For nearly every show and exhibit in the 60-year history of the Hayden Planetarium, art was created in the cause of science. Sketches, paintings, models, and photographs have been selected from the

Hayden archives and put on display for this retrospective of space art. From renditions of the sun, moon, and planets to portrayals of galaxies and the distant universe, the art has always captured the most exciting science of the times.

### Children's Shows

Special shows for children and their families are offered every Saturday and Sunday at 11:00 a.m.  
**Teddy's Quest**, for ages 3 to 9, tells the story of a teddy bear who travels through space and discovers the answers to such questions as how stars are formed, how to identify constellations, and what it's like on the moon. Every Sunday at 11:00 a.m.  
**Wonderful Sky** is a special Sky Show for preschoolers. Children sing along with images of their favorite Sesame Street Muppets as they learn about rainbows, the phases of the moon, sunsets, and stars. Sat., June 1, at 11:00 a.m.  
**The Secret of the Cardboard Rocket**, for ages 6 to 9, explores all of the major objects in our solar system, including the sun, moon, all nine planets, and some of their satellites. Saturdays, June 8, 15 and 22, at 11:00 a.m.  
**Robots in Space** features Lucasfilm's R2D2 and C-3PO® and has been created especially for children ages 7 to 12. Together with a live host, these famous space robots take children on a journey from the earth to other planets and distant black holes. Sat., June 29, at 11:00 a.m.  
Tickets can be purchased the day of the show. Admission for Family/Dual and Higher Members is \$5 for adults and \$3 for children. Members can purchase up to four tickets at the Members' price. For additional information, call (212) 769-5900

### Laser Light Shows

Journey into another dimension where laser visuals and rock music combine to create a dazzling 3-D experience of sight and sound. Shows are presented on Friday and Saturday at 7:00, 8:30, and 10:00 p.m. For prices and show schedule, telephone (212) 769-5100.

It's always a good idea to call before visiting the Planetarium, since prices, programs, and showtimes are subject to change without notice. For general Planetarium information, call (212) 769-5100.



June 1996

American Museum of Natural History



**2:00 p.m.** *Divine Magic* series. *Ghosts: The Restless Dead*, film screening. Page 6.

**4:00 p.m.** *Geology* Cruise up the Hudson. Education Department program. Call (212) 769-5310 for information.

**5:00 p.m.** *Flagging Blennies*. Speaker, C. Lavett Smith. Kaufmann Theater. Tickets required.

**Temporarily Closed for Repairs**  
The Hall of Minerals and Gems will be closed for recarpeting and other repairs until June 30.

**7:00-9:00 p.m.** Members' Preview of the Hall of Vertebrate Origins and Miriam and Ira D. Wallach Orientation Center.

**8** The Hall of Vertebrate Origins and the Miriam and Ira D. Wallach Orientation Center open to the public.  
**11:00 a.m.** *The Nooks and Crannies of Staten Island*. Guide, Sidney Horenstein. Education Department program. Call (212) 769-5310 for information.

**9:00 p.m.** New York Shell Club. Room 319. Free.

**2:00 p.m.** *Divine Magic* series. "Spirits in Sacred Dance," performances of spirit dances from different cultures. Page 6.

Renewing Your Membership?

The Membership Desk in the Roosevelt Rotunda is now open every day, from 10:00 a.m. to 4:45 p.m. Just bring your renewal notice and a check or major credit card.

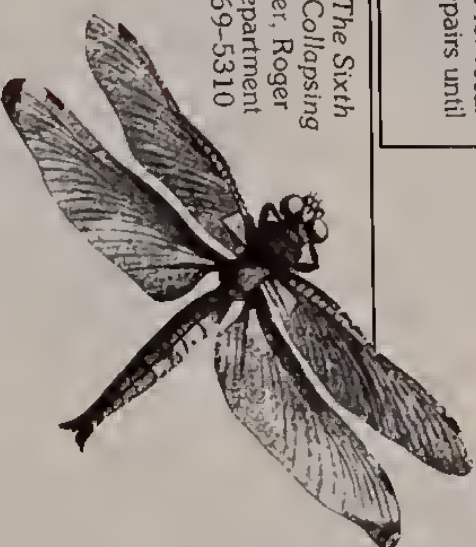
Can't Find Your Membership Card?

Please bring the mailing label from the current issue of *Natural History* or Rotunda to the Membership Desk and our staff will issue a temporary card.

**11:00 p.m.** *The Nooks and Crannies of Brooklyn and Queens*. Guide, Sidney Horenstein. Education Department program. Call (212) 769-5310 for information.

**12:30 p.m.** New York Mineralogical Club. Room 319. Free.  
**7:00 p.m.** *The World of Vertebrate Fossils*. Speaker, Eugene S. Gaffney. Kaufmann Theater. Tickets required.

**13:00 p.m.** *The Sixth Extinction: Collapsing Biodiversity?* Speaker, Roger Lewin. Education Department lecture. Call (212) 769-5310 for information.



**15:00 a.m.** *The 96th Street Mosque*. Members' Walking Tour. Guide, Mustafa Abadan. Tickets required.

**16** Father's Day

**1:00 p.m.** *The Earth as a Peppercorn: A Planet Walk*. Page 2.

**18:00 p.m.** *Wonders of Metropolitan New York*. Education Department lecture series. Part one. Call (212) 769-5310 for information.  
**7:30 p.m.** *Linnaean Society*. Leonhardt People Center. Free.

**19:00 p.m.** *Fossil Fishes: So Much Diversity, So Little Change*. Speaker, John G. Maisey. Kaufmann Theater. Tickets required.

**20** Summer begins (10:24 p.m., EDT)  
**7:00 p.m.** *Wonders of Metropolitan New York*. Education Department lecture series. Part two. Call (212) 769-5310 for information.

**Carry the Card!**  
Please help us serve you more efficiently by bringing your membership card with you each time you visit. Your entry into the Museum is easier when you do. Thanks!

**22:00 a.m.** *Molding and Casting Fish Fossils*. Members' workshop with Pamela Popeson. Tickets required.  
**1:30 p.m.** *Bridging the Harlem River on Foot*. Education Department walking tour. Call (212) 769-5310 for information.

**23** Last chance to see the Hayden Planetarium Sky Show, *Cosmic Mind Boggles: A Tour of Astronomical Extremes*.

Children's Summer Workshops Are Coming

June Myles is back this August with her wonderful children's workshops, which will range from learning how to catch a dream to finding out what's in a tooth. Save the first full week of the month, from August 5 to 9 — and see next month's issue of *Rotunda* for all the details.

**26** *Scientists and Journalists: One Story, Two Voices*, an exhibit on science writing, opens to the public.  
New Sky Show opens at the Hayden Planetarium: *Windows to the Universe*.



**28:00 p.m.** *Art of the Mask*. Members' guided tour, with Susan Shacker. Free; registration required.

**29**

30



# NOTUNDA

For Family/Dual and Higher Members of the American Museum of Natural History

Vol. 24, No. 7 July/August 1996

## Behind the Scenes

### An Exhibition Piece Goes Down at Put-In Bay



VW danatar Martin Shenkman (right), his campanian Linda Schmider, and mammalogy department curatar Ross MacPhee with the gutted car in the Museum yards, before its transfer ta Lake Erie

The beat-up shell of a white 1969 Volkswagen "bug" lies submerged at the bottom of Lake Erie, off the Ohio coastline, and mammalogy department curator Ross MacPhee is hoping that thousands of zebra mussels are making it their home.

The Museum is organizing an exhibition on endangered species and habitats, slated to open in March of 1997 (entitled *Endangered!*), and the invasion of zebra mussels into the Great Lakes region is considered by some an environmental disaster on the scale of the Alaska oil spill. If all goes as planned, the gutted Volkswagen will emerge from the lake in October with a complete mussel coating as much as one and a half inches thick and provide the exhibition with an extraordinary and dramatic example of what can happen when a species is introduced into a non-native habitat.

Although the idea seems straightforward enough, creating an exhibit piece like this called for more than the usual inventiveness. MacPhee and the staff of the mammalogy and exhibition departments had been considering various possibilities for their presentation — utilizing one of the many mussel-covered objects reportedly found at the bottom of the Great Lakes by locals or having a collaborator in the area dump a small object into the lake on their behalf. They even contemplated — but not for long — the task of gluing thousands and thousands of the tiny shells onto a chair. But MacPhee, who had heard a story about a VW bug found coated in zebra mussels, was persistent.

Transporting a gutted vehicle to Lake Erie, submerging it at the right depth, and retrieving it in a way that would leave its mussel coating intact were some of the major technical problems the organizers faced, espe-

cially under the economic constraints all Museums encounter. But the idea would never even have gotten off the ground if they hadn't found someone, somewhere, willing to donate the car. That job fell to a ten-year volunteer at the Museum, Wally Elvers. After a number of fruitless attempts to enlist the parent company in the venture, he began calling local Volkswagen sales and service representatives. The responses were unenthusiastic — until he dialed Martin Shenkman of Marty's VW Service in New Milford, New Jersey. A long time fan of the Museum, where he has visited regularly over the years with his children, Marty immediately latched onto the project, not only offering to donate the car but also to gut it and to bang out old dents on the fenders to ensure an overall smooth surface on which the mussels could adhere. With Shenkman's help, the project's first challenge was overcome.

The next phase of the project involved generous contributions of time and energy as significant as Elvers' and Shenkman's. Earlier in the summer organizers had enlisted the collaboration of John Hageman from Ohio State University. Hageman, lab manager of the school's F.T. Stone Laboratory, works at an island research station three miles offshore, midway between Toledo and Cleveland in a location called Put-In Bay. He will be the Museum's point man in Lake Erie, arranging for the car to be shipped from the mainland to his island and for a barge and derrick to tow it and lower it into the lake. Divers associated with the university's School of Natural Resources will keep track of the VW and the mussel-coating progress and be on hand when the next greatest challenge gets underway — lifting the vehicle out of the lake.

(continued on page 5)

## New Akeley Gallery Exhibit Opens August 2

### Okavango: Africa's Last Eden

Wildlife and wilderness captured with "distinctive style and thoughtful approach" is the hallmark of the highly acclaimed photographer Frans Lanting. A selection of pictures from his recently published book, *Okavango: Africa's Last Eden* (Chronicle Books), will be on display in the Museum's second-floor Akeley Gallery from August 2 to January 5, 1997.

The show, a traveling exhibit from the National Museum of Wildlife Art in Jackson Hole, Wyoming, consists of

(continued on page 4)



Elephants at twilight



## Members' Children's Programs

### Summer Workshops for Children

Monday, August 5 through Friday, August 9

Choice of session: 10:30-12:00 noon or 1:30-3:00 p.m.

\$18 per session, and open only to Family/Dual and Higher Members

Appropriate for ages 6-9

Program Code MM1

Young people can enjoy a summer session at the Museum with naturalist June Myles, who will conduct them on a walk through exhibits, introduce them to some fascinating facts, and help them make an arts-and-crafts item to take home. Descriptions of the workshops, in order from Monday through Friday, are listed below.

#### What's in a Tooth?

Quite a story! Children will examine the teeth of a variety of animals to find clues to

their life styles. How do various animals make their living? The teeth provide us with a lot of information. Teeth have been used to tell human stories too. Think of the adventures told by scrimshaw, those careful carvings on shell, bone — and teeth — made by the whalers who spent months on end at sea.

#### 50 States, 100 Faces

An endangered species can be big, but it can also be small, even tiny. It can be an

animal like us, a vertebrate, or it can have an exoskeleton like a snail. A plant can be as endangered as an animal; endangerment happens everywhere, even in our own backyards, and in every state in the United States. In this workshop children will go eye to eye with some of these creatures via their larger-than-life portraits in the *Witness* exhibit, see some endangered species in the Museum's collections, and make a mask representing the species that is our national symbol, sadly now also endangered.

#### Before T. rex and Its Kind

In the beginning of the evolutionary history of animals, before the age of the dinosaurs, there once lived many species with backbones. We'll put the first piece of the evolutionary puzzle in place by visiting the recently opened Hall of Vertebrate Origins on the fourth floor. We'll meet the creatures that lived in the seas, then those that first ven-

tered out on land some 370 million years ago.

All in all, they are an odd-looking lot, but prepare for surprises! Some actually outlasted the dinosaurs and are still living among us. Afterward, we'll work on a mobile of a primitive animal to take home.

#### King of the Pad

What has many tales but no tail at all? Or has it simply lost this feature? Children can explore the double lives of amphibians, looking at what science can teach us about them as well as at the history and superstition that surrounds the frog — the hero of so many adventure and

fairy tales. We'll go to the Hall of Reptiles and Amphibians to see frogs and toads in all their amazing variety and to learn about their habitats. We'll also fashion some of our own to pocket for the trip home.

#### Dreamcatcher

Just as spiders spin webs to catch a meal, Native Americans in their traditional cultures weave webs to catch the good dreams and filter out the bad. It sounds like such a good idea we want to try it. We'll find out how Native Americans lived, and then try our hand at constructing a net that will keep out the bad dreams and catch only sweet summer dreams instead.

Use the Central Reservations Coupon on page 5, under the Membership Programs heading, to register for one or more of these workshops. Be sure to indicate your choice of session and include the program code when you fill out the coupon.

## Members' Adult/Child Workshop

### The World of the Polar Bear

Saturday, September 28

10:30 a.m. or 12:30 p.m. or 2:30 p.m.

\$20, and open only to Family/Dual and Higher Members

For ages 6-9; limited to 15 couples per session

Program Code MM2

A polar bear can jump 20-foot crevices, kill a seal with a single swipe of its 25-pound paw, and swim 100

miles in icy water — and it does all these things in one of the least accommodating habitats in the world.

In this 75-minute workshop conducted by Christine Economos, well-known author of children's books, young naturalists can learn about the ice bear and the way it has adapted to life in its Arctic kingdom at the top of the world. Through informative discussion, examination of specimens, and hands-on activities children can extend and expand their understanding of this awesome creature, learning such facts as how the polar bear's coat comprises a downy underlayer and a water-resistant outer layer of six-inch-long guard hairs, how

it hunts its prey, and how its broad feet are suited to swimming and walking across the ice and snow.

The program will include craft activities like sculpting and mask making, and children will learn how to create a naturalist's diary in which they can record their observations and discoveries during the workshop and include samples of various materials reminiscent of the polar bear and its environment.

At the end of the workshop, each child will be given a copy of the American Museum of Natural History's

*Polar Bear Book & Diorama*, written by Economos. This new 64-page full-color book features two removable, hand-painted vinyl polar bears representing a mother and baby and is one of a new series of children's books published by the Museum.

The price includes admission for one child and an accompanying adult. Use the Central Reservations Coupon on page 5 to register for this program, under the Membership Programs heading, and be sure to write in the program code.

## Second Notices

The following programs were announced in last month's *Rotunda*. Unless otherwise specified, a limited number of tickets are still available. For detailed information on these listings, see the June issue of *Rotunda*. These programs are open only to Family/Dual or Higher Members unless a non-Members' price is specified. Use the Central Reservations Coupon on page 5 to register, and be sure to include the code number on our new coupon.

#### The Piltdown Affair: A Mystery Solved

Lecture by Robert Anderson. Monday, July 8; 7:00 p.m. \$7 for Members, \$10 for non-Members. Code: MM12

#### Liberty Science Center

Members' day trip. Saturday, July 20; 8:30 a.m.-4:30 p.m. \$50. Code: MM13

#### The Illustrated Library of the Natural Sciences

Members' guided tour. Two Fridays, July 12 and 19; 6:00 p.m. Free and open only to Family/Dual and Higher Members. Code: MM14

#### How Water Works

Members' day trip. Wednesday, July 17; 8:30 a.m.-5:30 p.m. \$50. Code: MM15

#### Stanford White's New York

Members' walking tour. Saturday, July 13; 11:00 a.m.-1:00 p.m. \$20. Code: MM16

#### The Raptor Trust

Members' day trip. Wednesday, July 10; 9:00 a.m.-2:00 p.m. \$40. Code: MM17

#### The Empire State Building: The Making of a Landmark

Lecture, Wednesday, July 24; 7:00 p.m. \$7 for Members, \$10 for non-Members. Code: MM18  
Members' walking tour, Wednesday, July 31; 6:00-8:30 p.m. \$20. Code: MM19

## ROTUNDA

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## Members' Walking Tour

### The Hidden Charms of Chelsea

**Saturday, August 17**  
**10:00 a.m.-12:00 noon**  
**\$25, and open only to Family/Dual and Higher Members**  
**Program Code MM10**

It began as one large farm, the property of an eighteenth-century gentleman, and over a century and a half it was transformed into one of New York's first great theater districts. Now known as the neighborhood called Chelsea, it underwent various incarnations over the decades: it was Manhattan's "tenderloin" district (a choice assignment for police seeking graft because of the area's vice and corruption), the center of the silent film industry, and home to the garment industry and the great department store palaces.

Today's Chelsea is an area of charming nineteenth-century homes encompassing a fascinating mix of residences and new, upscale commercial enterprises. Highlights of this walking tour, led by Joyce

Gold, will include landmarks of the silent film era, a Chelsea building that became a co-op in 1884, a chapel furnished with more choir stalls than pews, the story of Lily Langtry, the Prince of Wales, and a famous icecube, and much more.

Gold, who has been leading history tours of New York for two decades, teaches New York history at New York University and the New School for Social Research. This tour will meet at the General Theological Seminary on 9th Avenue, between 20th and 21st streets.

**Use the Central Reservations Coupon on page 5 to register for this tour, under the Membership Programs heading, and be sure to write in the program code.**

## Members' Day Trip

### The Barnes Foundation

**Sunday, August 18**  
**8:30 a.m.-7:00 p.m.**  
**\$65, and open only to Family/Dual and Higher Members**  
**Program Code MM11**

Anyone interested in impressionist and postimpressionist art will not want to miss an opportunity to see the unique collection of Dr. Albert C. Barnes, which is installed in his French Renaissance-style mansion in the lovely town of Merion, outside of Philadelphia.

While Barnes was alive, visits to his collection were highly restricted, and in fact the public was allowed entry only in 1961, after the outcome of legal proceedings. The collection consists of 175 paintings by Renoir, 66 by Cezanne, 65 by Matisse, and numerous others by Degas, Gauguin, Picasso, Van Gogh, and Italian painters such as Tintoretto.

The mansion and grounds, which include an arboretum surrounding the main building, were closed two years ago for renovation and re-opened last winter. The artwork has been re-installed according to Barnes' original arrangement: art covers every inch of the mansion's walls, interspersed with household tools, antique keys and door latches, Amish chests, and New Mexican folk art.

Barnes, who made his fortune on a patented medicine, believed in art as an educational tool and directed his own school within the mansion. His emphasis was on the formal, aesthetic aspects of art, and among his eccentricities was an abhorrence of color photography, which he saw as too divergent from the original. This meant that the works of this superb collection have been unavailable in color for study in books and slides until recently, when the trustees of Lincoln University took charge of the Barnes Foundation.

Transportation will be provided by bus to and from Merion. The tour of the mansion will be conducted by Leslie Bussis Tait, an expert in French art who has lectured on impressionist and postimpressionist painting at the Metropolitan Museum of Art.

**To register for this tour, use the Central Reservations Coupon on page 5, under the Membership Programs heading, and be sure to write in the program code.**

## Members' Memo

### Central Reservations Reminder

We would like to remind Members that, beginning with this month's *Rotunda*, the coupons needed to make reservations and purchase tickets for all programs advertised in *Rotunda* — including Membership, Education Department, Planetarium, and Environmental Public Programs — will be condensed into one.

To reserve tickets, fill out the new coupon that appears on page 5, using the code you will find in each program announcement and under each program description in Second Notices. Send the coupon and your check or money order to the Museum's Central Reservations office. If you wish, you can call the Central Reservations office with your credit card number and the code of the program/programs you wish to reserve.

All inquiries concerning ticket availability and receipt of coupon requests, as well as questions regarding the receipt of tickets you have ordered, should likewise be directed to Central Reservations.

**Call (212) 769-5200.**  
**The office is open on weekdays from 8:00 a.m. to 6:00 p.m. and on Saturdays from 10:00 a.m. to 6:00 p.m. to process credit card purchases and to answer all your inquiries.**

Although Central Reservations will now be handling all program ticketing and ticket information requests for all

the Museum departments, the Membership Office will continue to handle general inquiries about Museum membership and requests for general information about programs advertised in the pages of *Rotunda*.

### Please Be Advised

The Post Office has been returning membership cards and renewal notices to us when they are mailed out without an apartment number listed in the address. Please be sure to include this information on all your correspondence with us so that we are better able to offer Members speedy service. Thanks!

### Membership Services Information

For Museum events only

..... (212) 769-5606

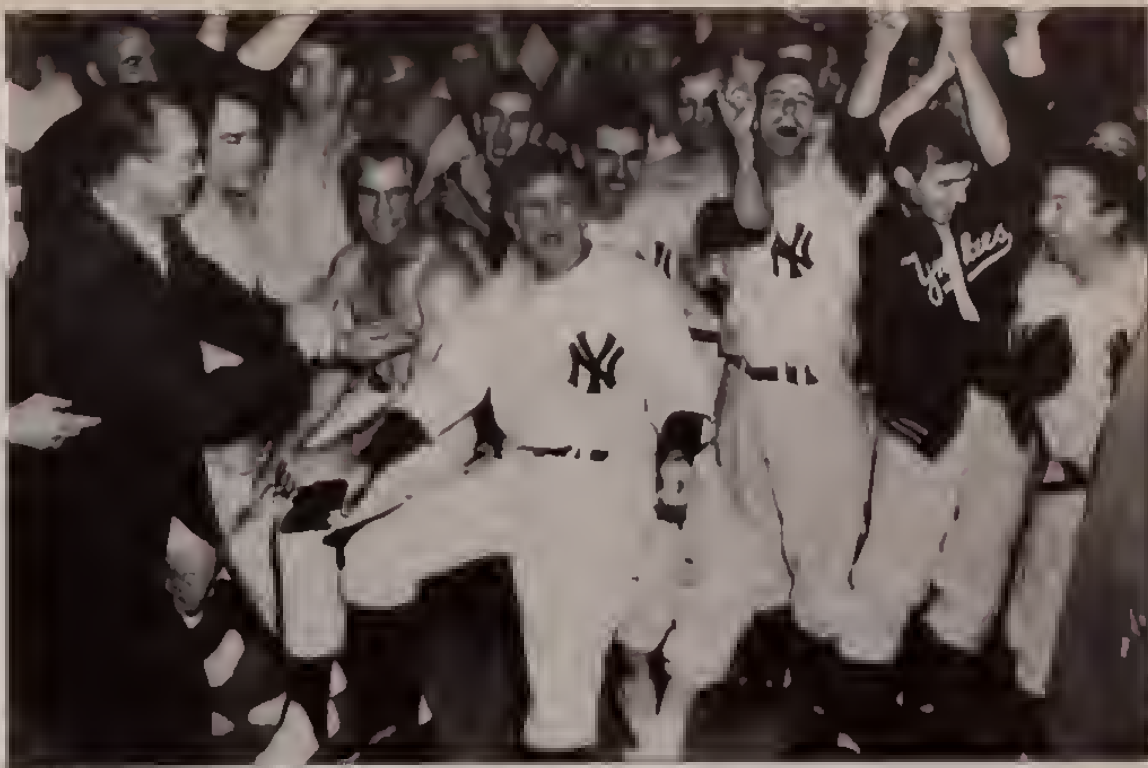
For Family/Dual membership inquiries

..... (800) 283-AMNH

## Members' Bus Tour

### The Natural History of New York City Baseball

**Wednesday, August 21**  
**9:00 a.m.-4:00 p.m.**  
**\$60, and open only to Family/Dual and Higher Members**  
**Program Code MM9**



**Casey Stengel and his triumphant New York Yankees after winning the 1949 American League pennant**

Baseball as we know it comes from New York City. The rising middle class of the 1840s, so heavily concentrated in New York through trade, transformed the game, with its hazy origins somewhere in Europe, into something fast, popular, and distinctly American.

Within fifteen years, four dozen baseball clubs were established in and around New York. Local soldiers then spread the game throughout much of the coun-

try during the Civil War. For decades thereafter, baseball was referred to as "the city game."

This bus tour, led by historian Peter Laskowich, focuses on the connections between both the features of baseball and the history of New York's major league ballparks (past and present) with the very land of this city. Learn how the pristine New York waterfront led to the invention of the curve ball. See how the Manhattan street grid may

have determined the shape of the baseball diamond. Understand the enduring legacy of Brooklyn and its Dodgers.

The tour will conclude at Yankee Stadium for an afternoon game between the Yankees and the California Angels.

**Use the Central Reservations Coupon on page 5 to register for this tour, under the Membership Programs heading, and be sure to write in the program code.**





Frons Lanting on location

(continued from page 1)

forty large-format photographs and some of the accompanying text from his 168-page book of color reproductions, which is available for purchase from the Museum shops.

The pictures were shot during a year Lanting spent in the Okavango Delta in northern Botswana, a country of southern Africa dominated by the parched reaches of the Kalahari Desert. In the north, however, the water wilderness of the Okavango Delta spreads across 8,500 square miles of sand and bushland, forming the largest inland delta in the world.

Across this vast region, wildlife responds to the rhythms of water.

To achieve the atmosphere and the arresting effects in motion, form, and color he was looking for, Lanting took his cameras under water, spent hours on his belly at the edge of watering holes, and photographed at night, when "familiarity fades and another world emerges — one where everything seems less certain."

Born in Rotterdam, Lanting first earned a master's degree in environmental economics and went on to study environmental planning in the United States. He began his career as a photographer in 1980 and has since

won numerous awards and been featured regularly in leading magazines, including *National Geographic*, which first sent him to the Okavango Delta. At the heart of his work is his desire to portray wild creatures as ambassadors for the preservation of complete ecosystems.

The most crucial issue for wildlife in the arid land of the Okavango is unimpeded access to water and room to roam. Neither is assured. But many are beginning to view the Okavango as a place of global significance worthy of designation, through a special United Nations program, as a World Heritage Site.

#### Members' Lecture Program

### The Evolution and Extinction of the Dinosaurs

Thursday, Sept. 26

7:00-8:30 p.m.

Kaufmann Theater

\$7 for Members, \$10 for non-Members

Program Code MM3

Paleontologists David Fastovsky and David Weishampel are the authors of *Evolution and Extinction of the Dinosaurs*, a new book that lays to rest many myths and misconceptions. This book, aimed at nonspecialists, is a comprehensive treatment of dinosaurs as scientists see the group. Designed as a textbook suitable for first- or second-year-level college courses, it will also interest the general reader with its engaging, ac-

cessible manner and right-up-to-the-moment information.

The authors, authorities in the field, will share the podium for this evening lecture program. Both will also be on hand afterward to sign copies of their book.

Use the Central Reservations Coupon on page 5 to register for this lecture, under the Membership Programs heading, and be sure to write in the program code.

### Printer's Devil to Publisher: Adolph S. Ochs of The New York Times

Wednesday, August 14

7:00-8:30 p.m., Kaufmann Theater

\$7 for Members, \$10 for non-Members

Program Code MM5

Did you know that there is an Adolph S. Ochs Glacier in Antarctica? And that a mountain there is named Marujupu after Ochs' four grandchildren, Marian, Ruth, Judith, and Punch? The reason is that the barefoot boy from Tennessee who transformed a failing newspaper into *The New York Times* — one of the best and most respected newspapers in the world — demonstrated a keen curiosity about the latest advances in science and exploration. His

news sense told him that intelligent readers shared this eagerness to find out what was going on in remote places around the world and that *The New York Times* might perform an enormous public service by providing that information — and enhance its circulation and economic viability at the same time.

Ochs and his newspaper will be the subject of a talk by Doris Faber, a former *Times* reporter and the author of *Printer's Devil to Publisher*:

Adolph S. Ochs of The New York Times (*Black Dome*), reprinted in an updated version this year as part of the celebration of the centennial of the purchase of the newspaper by Ochs. Faber will also be available after the lecture to sign copies of her book.

Use the Central Reservations Coupon on page 5 to register for this lecture, under the Membership Programs heading, and be sure to write in the program code.

#### Members' Guided Tours of the Museum

### White Days, White Nights

Friday, August 2

Program Code MM8A

It's August and it's hot. Why not a summer cooler? Join Robert Campanile as he treks to the North and South Poles to discover what it

means to be "iced." Ice shelves, frozen oceans, a land of extremes — both the Arctic and the Antarctic are truly cool places to visit.

### Beyond Words

Friday, September 20

Program Code MM8B

Language and writing are the two qualities that distinguish humankind from other species. Without language, humankind would not have a history, and how writing came to be in each of its historic forms seems incomprehensible.

Writing is a physical, emotional, and intellectual pursuit and has been the essential

ingredient, whether put into practice with hands, simple tools, or sophisticated machines, for what we call civilization.

With a tour through the halls of the American Museum of Natural History, Robert Campanile will try to bring the words and symbols of past ages back to life.

Both tours begin at 6:30 p.m. These programs are free and open only to Family/Dual and Higher Members. Use the Central Reservations Coupon on page 5 to register for one or both of these tours, under the Membership Programs heading, and be sure to write in the program code.

### Island World of Indonesia



Borobudur temple, on Jowo

Join Discovery Tours in Indonesia this coming winter on a cruise from February fifth to twentieth. Indonesia comprises some 13,000 islands, which spread out like an emerald crescent between the Malay Peninsula and Australia. Created by powerful geologic processes, it is one of the most culturally diverse nations in the world; each of its remote and isolated islands developed its own distinctive arts, architecture, crafts, and customs.

This cruise will visit several of Indonesia's western islands, rich in archeological sites, temples, and fascinating villages set amid lush volcanic scenery, and will afford the opportunity to see how the cultures of each island grew

independently. The cruise begins on Bali, known for its dazzling green rice fields, towering volcanoes, and especially for its people and their religion, ceremonies, and arts and crafts.

Experience also the magnificent archeological sites of Java and an excursion to Borobudur, the magnificent temple that is the largest Buddhist monument in the world. Built between 778 and 856 A.D., this stepped pyramid is covered with 1,400 carved stone panels that depict the path to enlightenment as one climbs to the summit. Other highlights of the cruise will include Madura Island's bull races, a visit to the crater of Krakatau, which erupted in

1883, to Medan and the Borok Orangutan Rehabilitation Center, and to Sumatra and Nias Island.

To ensure a rewarding educational experience, an anthropologist and a volcanologist/geologist will present an in-depth lecture program on the region throughout the tour. In addition, there will be several naturalists aboard the *Caledonian Star* to further enhance the program.

Price: From \$6,990 per person, double occupancy, plus air fare to Indonesia.

For more information, call Discovery Tours at (800) 462-8687 or (212) 769-5700, Monday through Friday from 9:00 a.m. to 5:00 p.m.



(continued from page 1)

At the time of this writing, Elvers, whose long service at the Museum ranges from developing procedures for embedding vertebrate fossils to preparing computer inventories of specimen collections, was making contact with the U.S. Army to determine if a military helicopter might be used to haul the VW out in a sling.

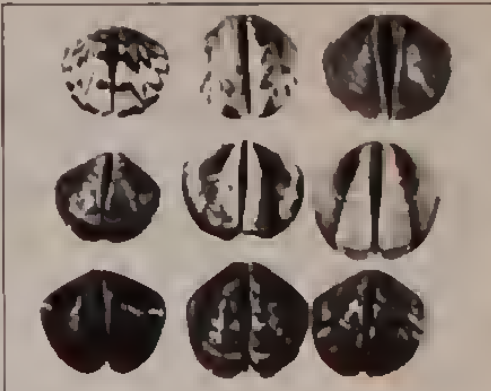
Once the car is safely on land, its new organic covering will pose another, this time olfactory problem

resulting from the strong smell of thousands of dying and decaying mussels, which will coat every crack and crevice of the vehicle. To seal off the living matter, a layer of polyurethane will be applied as soon as the VW is removed from the lake. The car will then be transported to New York and stored in the Museum yards (most likely in a specially built shed to protect it from the elements) until the exhibit is ready to assemble.

And that's not all. According to

another collaborator, the Museum's ichthyology curator emeritus C. Lavett Smith, the car, already almost one-half ton at its submersion, could weigh much more if populated by adult zebra mussels. When the exhibition is put together in the Museum's third-floor Gallery 3, says Elvers, just getting the VW in place may prove to be the biggest challenge of all.

Shell variations in the zebra mussel



J. Ellen Manderson/American Museum of Natural History Survey

Members' Day Trip

Sandy Hook  
— by Land  
and by Sea

Saturday, September 7  
8:30 a.m.–5:30 p.m.  
\$65 for Members, \$75  
for non-Members  
Program Code MM7

This tour combines a cruise through the beautiful and geologically fascinating New York Harbor with a visit to a unique landform located within the Gateway National Recreation Area. Sidney Horenstein, coordinator of the Museum's Environmental Public Programs, will provide the running narration on the *Amberjack* as it departs from the East River, sails into New York Harbor through the Upper Bay and the Narrows, and points toward Sandy Hook, on the New Jersey shoreline.

After debarking, your tour leaders will point out the geological and botanical highlights of this world-renowned sand spit. Participants will have the opportunity to watch a great variety of birds and to learn about the history of Sandy

Hook, especially its importance as a strategic military defense point for New York Harbor. The tour, which will travel by bus from site to site, will also take in some of the interesting trails developed there by the National Park Service.

Participants can bring their own lunch and enjoy a picnic or eat at Sandy Hook's Seagull's Nest restaurant.

Use the Central Reservations Coupon on page 5, under the Membership Programs heading, to register for this boat trip and tour. Be sure to write in the program code and to indicate on a separate piece of paper if you wish to eat at the Seagull's Nest — lunch will be available there by reservation only.

Enduring  
Harvests

Wednesday,  
September 11  
7:00 p.m.,  
Kaufmann Theater  
\$7 for Members, \$10  
for non-Members  
Program Code MM4

More than 75 percent of the foods we eat today originated in the Americas, developed by native peoples living and working in harmony with their environment. In this slide-illustrated lecture, E. Barrie Kavasch, an authority on Native American food and culture, looks at some modern Native American foods as they are celebrated and shared during rituals, dances, prayers, and other time-honored traditions.

Kavasch, whose specialty is ethnobotany, is the author of *Enduring Harvests: Native*

*American Foods and Festivals for Every Season* (The Globe Pequot Press, 1995). Her 150 recipes in this book are arranged month by month around a calendar year listing 75 different Native American powwows, homecomings, feast days, fairs and rodeos, harvest festivals, potlatches, and other ceremonies.

A research associate at the Institute for American Indian Studies in Connecticut, Kavasch is also the author of *Native Harvests* (Random House, 1979). She will be available after the lecture to sign copies of her books.

Use the Central Reservations Coupon on page 5 to register for this program, under the Membership Programs heading, and be sure to write in the program code.

Central Reservations Coupon



**By Phone.** Call (212) 769-5200 six days a week — Monday through Friday from 8:00 a.m. to 6:00 p.m. and Saturday from 10:00 a.m. to 6:00 p.m. Have your credit card and membership category ready when you call.

**By Mail.** Send the registration form below to Central Reservations, American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192. Make checks payable to the American Museum of Natural History.

Membership Programs

Program Title	Code	Date/Time

# of Membership Reservations	# of non-Membership Reservations	Total Amount Enclosed
		\$
		\$
		\$
		\$
		\$
		\$
		\$
		\$
		\$

Environmental Public Programs

Program Title	Code	Date/Time

# of Membership Reservations	# of non-Membership Reservations	Total Amount Enclosed
		\$
		\$
		\$
		\$

Total Amount Enclosed for All Programs  
\$

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_

State/Zip \_\_\_\_\_

Membership Category \_\_\_\_\_

Phone (day) \_\_\_\_\_

Phone (evening) \_\_\_\_\_

Charge my: American Ex. \_\_\_\_\_ Visa \_\_\_\_\_ Master Card \_\_\_\_\_

Card Number \_\_\_\_\_

Signature \_\_\_\_\_ Expiration Date \_\_\_\_\_



## Environmental Public Programs

### The World on a Shoe String

Friday, August 23

Three sessions: 4:00 p.m., 5:30 p.m., or 7:00 p.m.

\$12 for Members, \$15 for non-Members

Program Code EP1

Want to see the world? Need to get some exercise? Put on those walking shoes and trek with us on our "Around the World in 80 Minutes" tour. Discover one of our home planet's most precious treasures . . . DIVERSITY! What better way to

experience it than through our Museum's most precious treasure — the diorama. Geological diversity, biological diversity, cultural diversity, all seen and expressed through the diverse and unique perspectives of your worldly guides — Sidney Horenstein,

Laura Weinstein, and Robert Campanile.

Use the Central Reservations Coupon on page 5 to register for this tour, under the heading Environmental Public Programs, and be sure to write in the code.

### Members' Birthday Parties at the Museum

Children can celebrate their birthdays at the Museum, where we are celebrating a birthday of our own — it's the first anniversary of the return of the dinosaurs to the fourth floor. With a dinosaur theme party, the children are given a special guided tour of the exhibits, and in the party room they can handle fossil casts, play dinosaur games, learn how fossils are formed, and make one of their own. To avoid the crowds, the best times to celebrate a dinosaur birthday party are Wednesday and Friday afternoons from 3:30 to 5:30 p.m. and on Saturday and Sunday mornings from 11:00 a.m. to 1:00 p.m.

Members' birthday parties are geared to children between the ages of five and



Craig Chosik

ten, and families can choose fossil mammals, African mammals, ocean dwellers, or Native Americans for their theme.

The parties are available only to Members at the Contributor (\$100) level and higher and last two hours. The group should be no fewer than 10 and no more than 20. The fee is \$750 for groups from 10 to 15 and

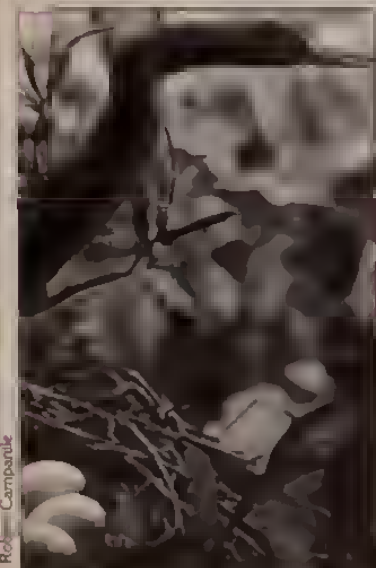
\$850 for groups from 16 to 20. It covers all materials and the services of Museum party coordinators, who help organize the party to suit the individual tastes of each child and handle everything from candles to party favors — parents need only bring the cake and help escort the guests.

For more information, call (212) 769-5542 or fax (212) 769-5427.

The Membership Office would like to thank the following young Members who celebrated their birthdays here recently: Madeleine Touroul, Reginald Moore, Alexander Lynn, David Vaino, Matthew Mirman.

### Exhibit of the Month

#### A Bird of Adaptable Feathers



Robert Campanile

Aninga, or snakebird

The aninga is known by many different names. It is sometimes called a snakebird because of its long, slender, snakelike neck, often held above the surface as the bird cruises the water in search of a meal. (The word *aninga* comes from the Portuguese term meaning "snaky.") Water turkey, another name it is known by, results from the appearance of its long, stiff tail, which when fanned looks like a turkey's tail.

Aningas have adapted to life in the water in several ways. They can swim slowly under water, their wings only partly folded, using the dark shadows their feathers create to attract their prey. A special hinge and muscular arrangement in the neck enables them to thrust the head rapidly forward so that their prey is stabbed and stunned. The sharp, pointed beak has fine serrations that help the

aninga to grasp slippery aquatic prey. Unlike ducks, which have only three toes united by membranes, the aninga has four webbed toes, making it a supreme swimmer and diver, and its water-permeable feathers allow it to submerge silently without attracting the attention either of its prey or of enemies.

Despite these useful adaptations to its aquatic environment, the aninga's feathers become saturated after prolonged submersion. Like cormorants, the bird must shake out its feathers after fishing and quickly find a resting place to spread its wings and dry out its plumage.

Aningas are found in North Carolina, Florida, Texas, parts of South America — and the Museum's Hall of North American Birds.

—Erica Okone

## Members' Walking Tour

### Two Views of the Harbor

Tuesday and Thursday, August 27 and 29

Choice of sessions, 4:30 p.m. or 6:30 p.m.

\$20 for one tour or \$35 for both

Open only to Family/Dual or Higher Members

Program Code MM6

Discover little-known facts, both geologic and historic, about New York Harbor, the Brooklyn Bridge, and the surrounding land areas by taking in the view from above and below in this two-day walking tour.

Led by Sidney Horenstein, coordinator of the Museum's Environmental Public Programs, participants will spend the first tour day, August 27, in a leisurely walk over the bridge from Manhattan to Brooklyn. Tour members can learn about the various features of waterways and landforms seen from the bridge, including the origins of the Upper Bay and the East River. Included will be information about the construction of the bridge, the

sources of the stone used in the towers, and the problems involved in laying the foundation for the bridge piers and anchors.

On the second tour day, August 29, participants will view the area from ground level. Battery Park will be the base for exploring the park itself and the vistas of the harbor it affords. Horenstein will explain where New York City had its start, tracing with tour members part of the original shoreline of Manhattan Island.

Use the Central Reservations Coupon on page 5 to register for this tour, under the Membership Programs heading, and be sure to write in the program code.

### At the Museum Shops

The Museum has adopted a new set of colorful icons to represent each of the curatorial departments: a bird for Ornithology, a butterfly for Entomology, a shell for Invertebrates, our familiar apatosaur for Vertebrate Paleontology, the planet Saturn for the Hayden Planetarium, a South American terra-cotta statue for Anthropology, a fish for Ichthyology, the Earth for Earth and Planetary Sciences, the bongo (a type of African antelope), for Mammalogy, and a tree frog for Herpetology.

At the Museum shops, we

have developed a new line of products using these beautiful images, including tote bags, T-shirts, patches, and knapsacks. Other new products include the fossil fish tie and scarf; the pteranodon T-shirt, polo shirt, baseball cap, and tote bag; and postcard books with images from the newly opened fossil halls.

At the Museum shops we strive to offer unusual items unlike the products you find elsewhere, and when you shop with us your purchase helps support the ongoing educational and scientific mission of the Museum.

## Kids eat free!

Present this ad to receive one free Junior Meal per child under 10 for every adult dinner entree purchase.\*

Each Junior Meal includes one entree and a beverage.

### Junior Menu

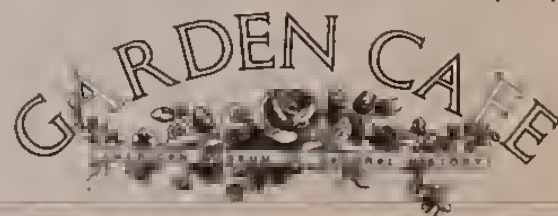
Choice of Soft Drink, Juice, Milk or Chocolate Milk

<b>Dino Pizza</b>	<b>"Moo"-seum Classic</b>	<b>Chicken Dino</b>
An individual Cheese Pizza	Grilled American Cheese, French Fries	Nuggets, French Fries

**Foot Long Hot Dog**  
French Fries

**"Meal-o-saurus"**  
1/4 lb. Hamburger, French Fries

\*Offer expires September 3, 1996





# Museum Notes



**Hours**  
Exhibition Halls  
Mon.-Thurs. & Sun. ....10:00 a.m.-5:45 p.m.  
Fri. & Sat. ....10:00 a.m.-8:45 p.m.  
The Museum Shop  
Mon.-Thurs. & Sun. ....10:00 a.m.-5:45 p.m.  
Fri. & Sat. ....10:00 a.m.-7:45 p.m.  
The Junior Shop  
Mon.-Fri. ....10:00 a.m.-4:45 p.m.  
Sat. & Sun. ....10:00 a.m.-5:45 p.m.  
The Museum Library  
Tues.-Fri. ....11:00 a.m.-4:00 p.m.

**The Natural Science Center**  
There are many wild places in the New York City area, and the Natural Science Center features live plants and animals from these local habitats. Closed Mondays and holidays.  
Tues.-Fri. ....2:00-4:30 p.m.  
Sat. & Sun. ....1:00-4:30 p.m.

**The Discovery Room**  
A hands-on examination of artifacts and specimens awaits visitors to the Discovery Room. Children must be 5 or older and accompanied by an adult. Closed weekdays and holidays.  
Sat. & Sun. ....Noon-4:30 p.m.

**Museum Dining**  
Diner Saurus Fast Service Eatery  
Daily ....11:00 a.m.-4:45 p.m.  
Garden Cafe  
Reservations: (212) 769-5865  
Lunch: Mon.-Fri. ....11:30 a.m.-3:30 p.m.  
Dinner: Fri. & Sat. ....5:00-7:30 p.m.  
Brunch: Sat. & Sun. ....11:00 a.m.-4:00 p.m.  
Whale's Lair  
Fri. ....3:00-8:00 p.m.  
Sat. ....Noon-8:00 p.m.  
Sun. & most holidays ....Noon-5:00 p.m.  
Snack Carts  
Sat. & Sun. ....11:00 a.m.-4:00 p.m.

**Entrances**  
During Museum hours visitors can enter the building through the 77th Street entrance, the Planetarium entrance (81st Street), the first- and second-floor Roosevelt Memorial Hall entrances (79th Street and Central Park West), or through the subway entrance. **Visitors attending programs after hours can enter the building at 79th Street and Central Park West or through the parking lot at 81st Street.**

**Phone Numbers**  
Museum information .....(212) 769-S100  
Planetarium information .....(212) 769-S900  
Education Department .....(212) 769-5310  
Discovery Tours .....(212) 769-S700  
.....toll-free outside NY State: (800) 462-8687  
IMAX® .....(212) 769-S034  
Development .....(212) 769-S270  
Communications .....(212) 769-5800  
Volunteer Office .....(212) 769-SS66  
Museum Shop .....(212) 769-S150  
Library Services .....(212) 769-5400  
Natural History magazine .....(212) 769-S500  
Members' Choice Collection .....(212) 769-SS30  
Members' Birthday Parties .....(212) 769-5542  
Planned Giving Office .....(212) 769-5119  
.....toll-free outside NY State: (800) 453-S734  
Central Reservations .....(212) 769-5200

**Parking**  
Paid parking is available for those attending Museum programs. The parking lot is open every day from 7:00 a.m. till 11:30 p.m. The parking lot has a capacity of 100 vehicles and is open on a first-come, first-served basis.  
Call the Membership Office at (212) 769-S606 for information about additional parking.

## Happenings at the Hayden



### Sky Show

**Seven Windows to the Universe**  
This sky show illustrates how astronomers use not only visible light but also gamma rays, X-rays, microwaves, and radio waves to unlock the secrets of the universe.  
**Showtimes:**  
Mon.-Fri.: . . .1:30, 2:30, 3:30, & 4:30 p.m.  
Sat.: . . .1:00, 2:00, 3:00, 4:00, & 5:00 p.m.  
Sun.: . . . . .1:00, 2:00, 3:00, & 4:00 p.m.  
**Admission (Family/Dual and Higher Members):**  
Adults: \$5  
Children (2-12): \$3  
Call (212) 769-5100 for non-Members' prices and additional information.

### Exhibits

**Comet Rendezvous**  
In conjunction with the appearance of Comet Hyakutake, the Planetarium is presenting a special exhibition illustrating what the core of a comet looks like. The exhibition features a working model of a comet nucleus that releases jets of gas in the same way an actual comet does as it approaches the sun.  
**Interpretations of the Cosmos: A Retrospective of Art Used in Planetarium Sky Shows and Exhibits**  
For nearly every show and exhibit in the 60-year history of the Hayden Planetarium, art was created in the cause of science. Sketches, paintings, models, and photographs have been selected from the Hayden archives and put on display for this retrospective of space art. From renditions of the sun, moon, and planets to portrayals of galaxies and the distant universe, the art has always captured the most exciting science of the times.

## Children's Shows

Special shows for children and their families are offered every Saturday and Sunday at 11:00 a.m.  
**Teddy's Quest**, for ages 3 to 9, tells the story of a teddy bear who travels through space and discovers the answers to such questions as how stars are formed, how to identify constellations, and what it's like on the moon. Every Sunday at 11:00 a.m.  
**Wonderful Sky** is a special sky show for preschoolers. Children sing along with images of their favorite Sesame Street Muppets as they learn about rainbows, the phases of the moon, sunsets, and stars. Presented on Saturdays, July 6 and August 3, at 11 a.m.  
**The Secret of the Cardboard Rocket**, for ages 6 to 9, explores all of the major objects in our solar system, including the sun, moon, all nine planets, and some of their satellites. Saturdays, July 13 and 20 and August 10, 17, and 24, at 11:00 a.m.  
**Robots in Space** features Lucasfilm's R2D2 and C-3PO and has been created especially for children ages 7 to 12. Together with a live host, these famous space robots take children on a journey from the earth to other planets and distant black holes. Presented on Saturdays, July 27 and August 31, at 11:00 a.m.  
Tickets can be purchased the day of the show. Admission for Family/Dual and Higher Members is \$5 for adults and \$3 for children. Members can purchase up to four tickets at the Members' price. For additional information, call (212) 769-5900.

## Laser Light Shows

Journey into another dimension where laser visuals and rock music combine to create a dazzling 3-D experience of sight and sound. Shows are presented on Friday and Saturday at 7:00, 8:30, and 10:00 p.m. For prices and show schedule, telephone (212) 769-5100.  
**It's always a good idea to call before visiting the Planetarium, since prices, programs, and showtimes are subject to change without notice. For general Planetarium information, call (212) 769-5100.**



Sun	Mon	Tues	Wed	Thur	Fri	Sat
<b>July</b> <b>1996</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b> Independence Day. The Museum is open.	<b>5</b>	<b>6</b>



**7**

**8** 7:00 p.m. *The Pill-down Affair: A Mystery Solved*. Speaker, Robert Anderson. Tickets required.

**9**

**10** 9:00 a.m. *The Raptor*. Trust Members' day trip. Registration required.

**12** 6:00 p.m. *The Illustrated Library of the Natural Sciences*. Tour guide, Robert Campanile. Part one. Free. Registration required.

**13** 11:00 a.m. *Stanford White's New York*. Members' walking tour. Guide, David Garard Lowe. Registration required.

## Invertebrates Hall Closing in July

The exhibition department is dismantling the Biology of Invertebrates Hall in preparation for the new Hall of Biodiversity, which will open in April 1998. Total closure will take place sometime in July, and in the meantime, visitors can have a last look at the invertebrates hall while individual exhibit cases are opened and then resealed as they are emptied.

A temporary entrance and exit for the Hall of Ocean Life will be provided through Gallery 77 during the construction of the new hall.

**16** 5:30 p.m. *Exploring Urban Geology and Nature*. Education Department program, part one. Call 769-5310 for information.  
7:30 p.m. Linnaean Society. Leonhardt People Center. Free.

**17** 8:30 a.m. *How Water Works*. Members' day trip. Guide, Sidney Horenstein. Registration required.

**18** 5:30 p.m. *Exploring Urban Geology and Nature*. Education Department program, part two. Call 769-5310 for information.

**19** 6:00 p.m. *The Illustrated Library of the Natural Sciences*. Tour guide, Robert Campanile. Part two. Free. Registration required.

**20** 8:30 a.m. *Liberty Science Center*. Members' day trip. Registration required.

**23** 5:30 p.m. *Exploring Urban Geology and Nature*. Education Department program, part three. Call 769-5310 for information.

**24** 7:00 p.m. *The Empire State Building: The Making of a Landmark*. Speaker, John Tauranac. Tickets required.

**25** 5:30 p.m. *Exploring Urban Geology and Nature*. Education Department program, part four. Call 769-5310 for information.

**26**

**30**

**31** 6:00 p.m. *The Empire State Building: The Making of a Landmark*. Members' walking tour. Guide, John Tauranac. Registration required.

## IMAX®

Beginning July 1, the Museum's IMAX® theater will be screening the film *Yellowstone*, a spectacular journey through America's oldest and largest national park. Through the IMAX® camera, journey down the powerful rushing water of the Yellowstone River and probe the depths of America's most famous geyser, Old Faithful. The film is produced by Keith Meril and Richard James, who brought *Grand Canyon: The Hidden Secrets* to the IMAX® screen.

Showtimes are 11:30 a.m. and 1:30 and 3:30 p.m. daily, and for the film *Stormchasers*, 10:30 a.m. and 12:30, 2:30, and 4:30 p.m. daily.

## Sun August 1996

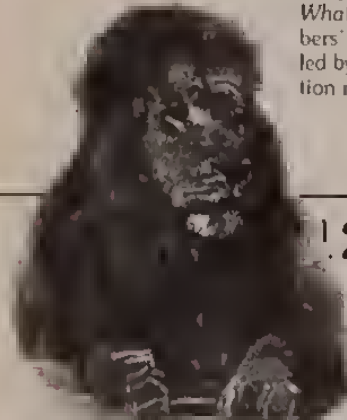


**Fri**

**2** *Okavango: Africa's Last Eden*. New photography exhibit opens in the second-floor Akeley Gallery.  
6:30 p.m. *White Days, White Nights*. Members' guided tour, led by Robert Campanile. Free. Registration required. Page 4.

**3**

**4**



**5** 10:30 a.m. or 1:30 p.m. — two sessions. *What's in a Tooth?* Members' Children's Workshop, led by June Myles. Registration required. Page 2.

**6** 10:30 a.m. or 1:30 p.m. — two sessions. *50 States, 100 Faces*. Members' Children's Workshop, led by June Myles. Registration required. Page 2.

**7** 10:30 a.m. or 1:30 p.m. — two sessions. *Before T. rex and Its Kind*. Members' Children's Workshop, led by June Myles. Registration required. Page 2.

**8** 10:30 a.m. or 1:30 p.m. — two sessions. *King of the Pad*. Members' Children's Workshop, led by June Myles. Registration required. Page 2.

**9** 10:30 a.m. or 1:30 p.m. — two sessions. *Dreamcatcher*. Members' Children's Workshop, led by June Myles. Registration required. Page 2.

**10**

**12**

**13**

**14** 7:00 p.m. *Printer's Devil to Publisher*. Adolph S. Ochs of The New York Times. Speaker, Doris Faber. Tickets required. Page 4.

**15**

**16**

**17** 10:00 a.m. *The Hidden Charms of Chelsea*. Members' walking tour, led by Joyce Gold. Registration required. Page 3.

**18** 8:30 a.m. *The Barnes Foundation*. Members' day trip, led by Leslie Bussis Tail. Registration required. Page 3.

**19**

**20** 7:30 p.m. Linnaean Society. Leonhardt People Center. Free.

**21** 9:00 a.m. *The Natural History of New York City Baseball*. Members' bus tour. Page 3.

**22**

**23** 4:00, 5:30, or 7:00 p.m. — three sessions. *The World on a Shoe String*. Environmental Public Programs guided tour. Registration required. Page 6.

**24**

**25**

**26**

**27** 4:30 or 6:30 p.m. — two sessions. *Two Views of the Harbor*. Members' walking tour, part one, led by Sidney Horenstein. Registration required. Page 6.

**28**

**29** 4:30 or 6:30 p.m. — two sessions. *Two Views of the Harbor*. Members' walking tour, part two, led by Sidney Horenstein. Registration required. Page 6.

## Carry the Card!

Please help us serve you more efficiently by bringing your membership card with you each time you visit. Your entry into the Museum is easier when you do. Thanks!

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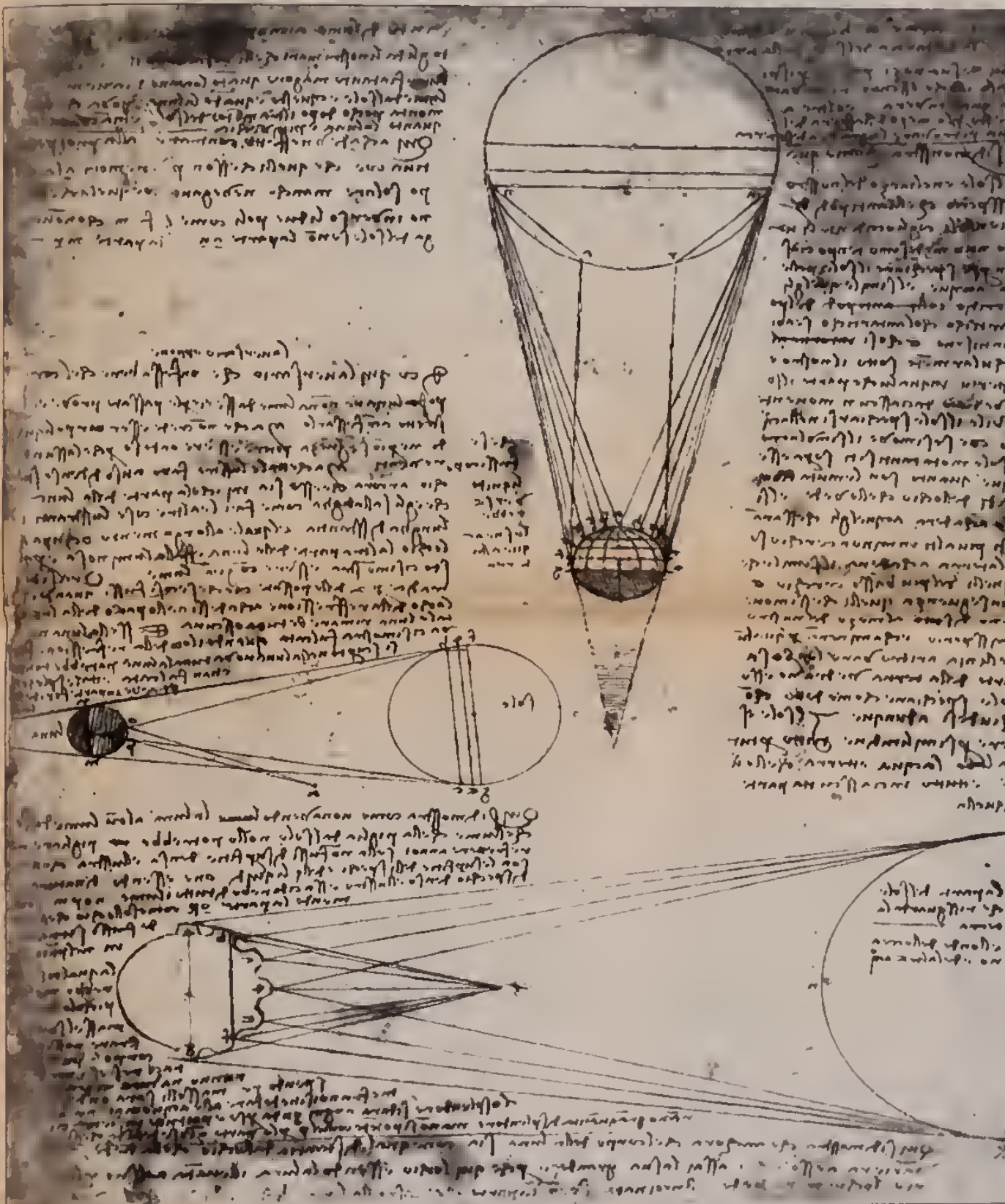
# American Museum of Natural History



# ROTUNDA

For Family/Dual and Higher Members of the American Museum of Natural History

Vol. 25, No. 8 September 1996



From Leonardo da Vinci's Codex Leicester: detail showing notes and diagrams of astronomical observations

## Leonardo's Codex Leicester: A Masterpiece of Science

The Codex Leicester, on loan from William H. Gates, will be on view for two months in the Museum's third-floor Gallery 3, beginning on October

26th. This special exhibition will feature the only manuscript by Leonardo da Vinci (1452-1519) still in private hands and the only one in America. A lively record of the thoughts of the great Renaissance artist and scientist, the Codex Leicester is one of the most famous and important of Leonardo's scientific notebooks. The manuscript features a wide variety of topics, from astronomy to hydrodynamics, and includes Leonardo's observations and theories related to rivers and seas, rocks and fossils, and air, fire, and celestial light. Composed of eighteen loose double sheets on which Leonardo wrote down observations as they occurred to him, the notebook

gives direct evidence of its author's relentless curiosity and his strong urge to understand physical causes and effects in nature.

Look for more details on this exceptional exhibition in next month's issue of Rotunda.

### Members' Viewing

A private viewing of the exhibition will be scheduled for Family/Dual and Higher Members. The viewing, although free of charge, will be ticketed in order to accommodate small groups in separate sessions. See next month's Rotunda for details on the date, times of sessions, and Program Codes.

## Fall Lecture Series

The Education Department has prepared a series of performances, workshops, walking tours, and field trips on subjects ranging from geomorphology to the language of birds.

Pages 5-7.

## Courses for Stargazers

Register with the Hayden Planetarium to study the life cycle of stars, the rudiments of the telescope, or celestial navigation. Page 8.

## Workshops for Children

Fossil drawing, a laboratory program on human origins, and lessons in kitchen chemistry highlight the new fall series, beginning next month. Page 7.

## Margaret Mead Film and Video Festival

From November 8 through 14 we will celebrate the twenty-year anniversary of the festival, which will feature over sixty films from around the world. Watch for details in next month's issue of Rotunda.



Film frame from Chastie ("Paradise"), by Sergey Duortsevov, an entry from Kazakhstan.



## Second Notices

The following programs were announced in last month's *Rotunda*. Unless otherwise specified, a limited number of tickets are still available. For detailed information on these listings, see the July/August issue of *Rotunda*. These programs are open only to Family/Dual or Higher Members unless a non-Members' price is specified.

### Sandy Hook — by Land and by Sea

Boat cruise and tour of Sandy Hook, guided by Sidney Horenstein. Sat., Sept. 7, 8:30 a.m. to 5:30 p.m. \$65 for Members and \$75 for non-Members. Code: MM14-09

### Enduring Harvests

Slide-illustrated lecture by E. Barrie Kavasch. Wed., Sept.

11, 7:00 p.m. \$7 for Members, \$10 for non-Members. Code: MM4-09

### The Evolution and Extinction of the Dinosaurs

Lecture program with David Fastovsky and David Weishampel. Thurs., Sept. 26, 7:00 p.m. \$7 for Members and \$10 for non-Members. Code: MM13-09



### The World of the Polar Bear

Adult/child workshop, conducted by Christine Economos. Sat., Sept. 28, 12:30 p.m. session still available \$20. Code: MM2-09

### Special Members' Dance Program

## Spanish Dance Society

Thursday, October 10  
8:00 p.m., Main Auditorium  
\$11 for Members, \$16 for non-Members  
Program Code: MM2-10



Company codirectors Lourdes Elias (left) and Jaime Coronado in a flamenco duet.

The Spanish Dance Society comes back to the Museum after a five-year hiatus. In the interim, members of this sumptuously costumed, scrupulously authentic, high-energy ensemble have toured extensively in the Washington D.C. area and in San Juan, London, and Tokyo.

The company, founded by artistic director emerita Dame Marina Keet, will perform a combination of exciting new pieces and old favorites, from fiery flamenco dances to the subtle classical works of the *escuela bolera*.

The show will feature two contrasting boleros from the eastern region of Valencia: a rare traditional piece called *mortitxol*, which enacts the mourning for the death of a child, and an elegant duet included in Dame Margot Fonteyn's 1980 TV series "The Magic of Dance."

As a highlight of this program, the company will be presenting a Lifetime Achievement Award to Matteo (Matteo Marcellus Vittucci), a long-time patron and mentor of the group well known to New Yorkers for his versatile dance performances and his popular series of "castanet concerts."

### Members' Guided Tours

## Spinal Tap: From Braincase to Brainstorm

Friday, September 27  
Program Code: MM15-09

The fourth-floor renovations are complete, and the Museum is now home to the most spectacular fossil exhibitions in the world. Six extraordinary halls, the world's largest display of vertebrate fossils, tell the remarkable story of the evolution of animals with backbones. After 500 million years in the making in nature — and 7 years in the making at the Museum

— the fossils on exhibit allow us to finally experience the entire progression of vertebrate history in one incredible journey. Join Robert Campanile and follow the path of vertebrates from their origins in the ocean through their journey onto land and eventually to the human species, and wonder at where we came from and perhaps even where we are going.

## The Telltale Tour: A Night of Edgar Allan Poe

Friday, October 18  
Program Code: MM1-10

Do you dare hear mysterious tales in the evening, in dimly lit halls with their shadowy walls? Do you dare to feel the wind suddenly chill you to the bone when there is no wind? Those who delight in sharing such tales can quench their eerie thirst with Robert Campanile and a night of Edgar Allan Poe at the Museum. Campanile will

guide you through the spirited halls engaging you with a collection of tales and poems you'll wish you hadn't heard. So come to listen; but do not come alone! For it's fall in the House of Bickmore, and the tombs and bones, and especially the shadows, are waiting to greet you, and anxious to tell their tales. Do you dare listen?

Please Note: because of limited space, tickets are available by mail only for these tours, on a first-come-first-served basis. Both tours begin at 6:00 p.m. These programs are free and open only to Family/Dual and Higher Members. Use the Central Reservations Coupon on page 9 under Membership Programs to register.

## ROTUNDA

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# Members' Memo

## Computerized Ticketing Is Here!

One of the goals of the Membership Department has always been to ensure that all Members receive personal attention — in addition to the high-quality museum experience they have come to expect — every time they visit. Now that a fully computerized ticketing system has been installed, Members can look forward to faster, more efficient personal service.

A Membership Department representative will be present at the 77th St. and Rotunda (Central Park West) computerized entrance desks seven days a week during most regular Museum hours, and at the Hayden Planetarium on weekends, from 10:00 a.m. to 4:45 p.m.

Membership staff are trained not only to furnish Members with admission tickets and discounted IMAX, Laser Show, Sky Show, and special exhibit tickets, but also to provide one-day passes for those who have lost or temporarily misplaced their Membership cards, to sell regular and special gift memberships, and to

answer questions about Membership categories, privileges, and programs. We welcome this upgrading of Museum facilities and, with our increased Membership sales staff, look forward to the improved service it will bring to Members.

## Central Reservations

We would like to remind Members that the Central Reservations Coupon on page 9 can be used to register for all your favorite programs — from Education Department to Hayden Planetarium, Environmental Public Programs, and Membership Department programs. Please remember to include the Program Code in your phone or mail reservation.

All inquiries concerning ticket availability and receipt of coupon requests or tickets should be directed to the Central Reservations telephone number. They can be reached weekdays from 8:00 a.m. to 6:00 p.m. and on Saturdays from 10:00 a.m. to 6:00 p.m.

And thank you, Members, for your patience while we work on ironing out the first creases in the Central Reservations system.

## Please Keep Writing

We are grateful to the many Members who took the time to send their ideas and suggestions in letters to the editor. A number of readers made the case for a list of current exhibits to appear each month, and Members can now find that list on the same page as Museum Notes, this month on page 11.

Please continue to send your comments and suggestions, and we will continue to respond to them.

## Take Note

- Construction is taking place in the former Hall of Invertebrates, where exhibits have been permanently dismantled to make room for the new Hall of Life's Diversity, scheduled to open in spring 1998. Access to the Hall of Ocean Life will be made possible through a temporary entrance located in Gallery 77. The Discovery Room will be relocated.
- Entrance to the Library and the Library Gallery is now possible through the fourth-floor Hall of Vertebrate Origins. As you enter the hall, look for the glass doors on your left.

## Members' Family Program

## Ghost Stories for Families and Adults

Friday, Oct. 25, Kaufmann Theater  
Family Session, Children 5-12, 6:00-7:30 p.m.  
\$6 for Members, \$9 for non-Members  
Program Code: MM6-10

Adults, 8:00-9:30 p.m.  
\$8 for Members, \$12 for non-Members  
Program Code: MM7-10



Laura Simms

Laura Simms, a leader in the revival of storytelling as an art form, will usher in the day of the dead with an evening of ghost and spirit tales from the visible and invisible worlds. Simms tells traditional stories

— full of classic wisdom, eerie symbolism, and humor — with a focus on their relevance to our modern culture, as well as "true life" adventure stories that reveal the magic and mystery of daily existence.

The children's program includes tales of marvelous monsters, talking ghosts, and the story of the opening of a forbidden door. Simms will also offer special instructions on what to do if you wake up and discover that you have been turned into a witch. Adults will hear a Zuni tale called "To Dance with the Dead," ghost stories from around the world, and an extraordinary tale from India.

This year marks the fifteenth anniversary of Simms' Halloween shows at the Museum. She has traveled across three continents to hear and tell the world's stories, and her teachers have included Margaret Mead and Joseph Campbell.

## Membership Services Information

For Museum events only . . . . . (212) 769-5606  
For Family/Dual membership inquiries . . . . . (800) 283-AMNH

### Central Reservations

For ticket information and coupon fulfillment information . . . . . (212) 769-5200

## Debut Performance of Traditional Korean Dance and Song

## In-Young Sohn Dance Company

Kaufmann Theater  
\$10 for Members, \$12 for non-Members

In-Young Sohn and her company of six dancers make their United States debut here in the Museum this month, demonstrating the inseparable nature of traditional dance and song. Two Korean performers, who have been given the title of National Living Treasures by their government, as well as an ensemble of Korea's finest musicians, will accompany Sohn and her dancers.

A former member of the Korean National Dance Company, Sohn is known in her country for her exquisite and rare quality of movement and for her mastery of the most difficult traditional pieces. The

program will include choreography seldom performed even in Korea, such as the *Su-ak Kim* style of *salp'uri*, said to preserve within it the essence of the country's historic dance traditions.

This special program of four performances is sponsored by the Museum's Education Department. Tickets are available through credit card reservation by phone or by mail with the Central Reservations Coupon on page 9, under Education Department. Please be sure to include the program code in your phone or mail reservation. If you have any questions, please call (212) 769-5315.

### Performances

Fri., Sept. 27, 7:00 p.m.  
Sat., Sept. 28, 2:00 p.m.  
Sat., Sept. 28, 7:00 p.m.  
Sun., Sept. 29, 2:00 p.m.

### Program Codes

ED96100M  
ED96101M  
ED96102M  
ED96103M

In-Young Sohn, who will perform with her ensemble in their New York debut at the museum.



Choi Young-mo



## Lecture on John Burroughs

Tuesday, October 22

7:00–8:30 p.m.

Linder Theater

\$6 for Members, \$9 for non-Members

Program Code: MM3-10

## Day Trip to Slabsides

Saturday, October 26

9:00 a.m.–5:00 p.m.

\$50 for Members, \$60 for non-Members

Program Code: MM4-10

The slide lecture will focus on the popularity and influence of John Burroughs (1837–1921), a leading literary critic in his day and a pioneer in the school of nature writing. The talk will range from his youth on a dairy farm to his rise as one of America's most notable public figures, sought out by presidents, industrialists, and prominent citizens. Harvey Firestone, Thomas Edison, and Henry Ford were his friends, and Walt Whitman and dozens of

other literary luminaries came to him for company and advice. Burroughs also traveled to Yellowstone with Theodore Roosevelt and to the Grand Canyon with John Muir, and he is known for popularizing the nature essay genre in this country by discovering a language for making others appreciate the small spectacles of nature.

Burroughs captured the beauty and wonder of native North American birds, animals, and plants for an enor-

mous readership and encouraged Americans to go out into nature and observe for themselves. Participants in this lecture will also be given a guided tour of the Museum's exhibits on Burroughs, Roosevelt, and the Hall of North American Forests.

Participants on the day trip will travel by bus to Slabsides National Historic Landmark in West Park, New York, on the Hudson River, ten miles south of Kingston. A video on the life of Burroughs and a talk focusing on the famous naturalist's Hudson River memoirs will be two of the highlights of this day trip. The talk will include details about the Slabsides swamp, the building of Slabsides and its yellow birch furniture, and prominent visitors to the cabin. After lunch, tour members will have the opportunity to walk the Catskill trails of the area and to birdwatch.

Members and others can register for one or both of these programs. Be sure to include the program code when registering.



Rough-hewn yellow birch furniture adorns the rooms at Slabsides (above), the celebrated home of naturalist John Burroughs. Right: Burroughs at his desk.



## From the Volunteer Department

What Museum department has a staff of over 950? The Volunteer Department! The volunteers, ages sixteen through eighty-five (and over), contribute to the ongoing research and education at the Museum as well as to their own personal satisfaction. They work in thirty-five departments on a wide range of tasks — from preserving specimens to filing letters and reports in archives and interpreting the results of fieldwork

from research stations. Volunteers also work with the public in various capacities: at the information desks and Expedition Field Stations, in the Education Department, and as Fossil Explainers and Museum Highlights Tour guides.

This diverse group of people come from the four corners of the earth and speak a total of 39 languages, including Bulgarian, Korean, Punjabi, and Turkish. A background in natural history is

not necessarily a prerequisite for volunteering at the Museum. There are oceanographers, doctors, zookeepers, and biochemists. And there are also teachers, editors, actors, air traffic controllers, and even an expert in kimono dressing. The volunteers generously contribute over 110,000 hours to the Museum annually. Most will tell you that *they* are the lucky ones, for the rewards far outweigh the efforts.



The Hudson and the Highlands

## Members' Boat Trip

## Hudson Valley Cruise

Sunday, October 20

Noon–4:00 p.m.

\$50 for Members, \$60 for non-Members

Program Code: MM5-10

Take advantage of an ideal opportunity to survey the autumn foliage through the historic Hudson Valley. This cruise will take participants from Wall Street to West Point and back on a high-speed catamaran that will carry tour members in comfort at the peak of the season's changing colors.

The trip's route will take in the entire length of the Palisades — into the Tappan Zee, past Croton Point and the

entrance to Haverstraw Bay, and then through the gateway of the Hudson Highlands. The route will follow the river through its most spectacular scenery to West Point and Storm King Mountain.

Sidney Horenstein, coordinator of the Museum's environmental public programs, will point out aspects of geologic interest and other features of the region, from its historic heritage to its rich forests.

## Magic Through the Ages

Wednesday, Oct. 30

7:00–8:30 p.m.

Kaufmann Theater

\$5 for Members

\$8 for non-Members

Program Code:

MM8-10



Anthony Aveni

Join Anthony F. Aveni for a discussion of his latest book, *Behind the Crystal Ball* (Times Books), in which he traces the ancestry of many of today's New Age beliefs and customs. Aveni, the Russell B. Colgate Professor of Astronomy and Anthropology at Colgate University, will explore the ways in which the occult arts developed alongside science as often conflicting, sometimes reinforcing ways of understanding the natural world.

Aveni's talk will take participants along the sinuous path-

ways of the occult, from the cult of the dead in ancient Egypt to disease cures in imperial Rome, the practice of reading the future in a sheep's liver, and the activities of the spiritists of the nineteenth-century American frontier who claimed to raise the dead.

Featured in *Rolling Stone* magazine's 1991 list of the ten best university professors, Aveni has lectured on astronomy-related subjects for the Learning Channel, and edited or authored more than a dozen books on ancient astronomy.



# Education Department Fall Programs

## Evening Lecture Series and Ticketed Performances

### Geomorphology: The Shape of the Earth

Two Tuesdays and Two Thursdays, starting Oct. 1  
7:00–8:30 p.m.

\$25; \$22.50 for Members

**Program Code: ED96200L**

The land has form — grassy plains, barren mountain ridges, deep valleys, and wave-battered cliffs. How did these landscapes form? This four-part, slide-illustrated series of lectures by Sidney S. Horenstein, geologist and Museum coordinator of Environmental Public Programs, describes why landscapes are found where they are and the forces that shape them. The subject is very rich and draws on many subdisciplines in the earth sciences. Lectures are combined with assigned readings.

### Dos Alas/Two Wings

Tuesday, October 8

8:00–10:00 p.m.

\$5; \$4.50 for Members

**Program Code: ED96104M**

Dos Alas/Two Wings recognizes the shared expressive cultures of Cubans and Puerto Ricans in a program in which members of AfroCuba de Matanzas, led by Francisco ("Minini") Zamora, and Los Hermanos Cepeda, led by Jesus Cepeda, will join some of New York City's finest practitioners of the sacred and secular African-based musical traditions of the two islands. AfroCuba de Matanzas is an internationally acclaimed group of expert musicians, and Los Hermanos Cepeda, from Santurce, represents three generations of the "patriarch" family of Puerto Rico's bomba and plena traditions.

### Alaska!

Four Thursdays, starting Oct. 17, and Fri., Nov. 15  
7:00–8:30 p.m.

\$30; \$27 for Members

**Program Code: ED96202L**

Discovery — gold — oil — wildlife! Alaska evolves, shaped by its vitality and diversity. Share our Alaskan heritage with Kenneth A. Chambers, Museum zoologist (ret.), polar exploration scholar, and an observer of the Alaskan scene for over two decades. The lectures will cover the following subjects: an introduction to Alaska and the native Alaskans, southwest Alaska, southeast Alaska, south-central Alaska, and arctic Alaska, including information about backpacking in the Brooks Range and in the Kongakut and Hulahula river valleys of the Arctic National Wildlife Refuge. There will also be a visit to the Museum's North American Mammal Hall to discuss caribou and musk oxen exhibits.

### Beginnings: Earth, Moon, Air, and Life

Three Thursdays, starting Oct. 24, and Fri., Nov. 15  
7:00–8:30 p.m.

\$25; \$22.50 for Members

**Program Code: ED96203L**

The Museum's Earth and Planetary Sciences Department will sponsor this lecture series featuring noted scientists in discussions of the origins of our planet and its geological and physical elements.  
Oct. 24 — "The Origin of the Earth." Speaker, David J. Stevenson, George Van Osdel Professor and former chair of the Geologic and Planetary Sciences Division of the California Institute of Technology.  
Oct. 31 — "The Origin of the Moon." Speaker, Michael J. Drake, head, Department of Planetary Sciences and director, Lunar and Planetary Laboratory, University of Arizona.  
Nov. 7 — "The Origin of the Atmosphere." Speaker, Joel S. Levine, Theoretical Studies Branch, Atmospheric Sciences Division, NASA Langley Research Center.  
Nov. 15 — "Early Life in the Geologic Record." Speaker, J. William Schopf, Center for the Study of Evolution and the Origin of Life and Department of Earth and Space Sciences, UCLA.

### The Language of Birds

Wednesday, Oct. 23

7:00–8:30 p.m.

\$10; \$9 for Members

**Program Code: ED96204L**

This illustrated talk by English ornithologist and radio broadcaster Jeffery Boswall features more than fifty sound recordings of birds brought together from six different continents. The first part of the talk will answer the question, Why do birds make noises at all? Boswall will offer "translations" of songs, alarm calls, hunger cries, and contact notes. The second part explores the learning ability of birds, with a series of examples of voluntary mimicry by wild birds and the talking ability displayed by parrots, budgerigars, and mynahs tutored by humans. The talk will conclude with a brief exploration of the musicality of birdsong.

### Native Ways of Psychophysical Health

Two Mondays, Oct. 21 and 28

7:00–8:30 p.m.

\$15; \$13.50 for Members

**Program Code: ED96205L**

In this engaging lecture, anthropologist and author Peter Gold, a member of the Social and Cultural Anthropology faculty of the California Institute of Integral Studies in San Francisco, explores the cultural wisdom, visionary arts, and ritual life of peoples that he has studied in the field: Tibetans, Balinese, Yupik Eskimo, and Navajo, Hopi, Apache, and Nahua Native Americans. Using slides and recordings, Gold explores these cultures' distinctive traditions for creating psychological stability, health, and spiritual balance. The first lecture, "Integrating Body and Mind," looks at how these cultures promote wholly integrated individuals. The second, "Maintaining Health and Holiness," explores native ways of maintaining psychophysical health and examines the nature of spiritual insights and procedures for creating sacredness of self, family, and community.

### Mushrooms and Conifers, Mosses and Ferns

Five Mondays, starting Oct. 7

2:30–4:00 p.m.

**Program Code: ED96206L**

Or five Thursdays, starting Oct. 10

7:00–8:30 p.m.

**Program Code: ED96207L**

\$30; \$27 for Members

This series of slide-illustrated talks by botany lecturer William Schiller introduces the mushrooms, mosses, and ferns of forest and meadow; the lichens of rocky and sandy places; algae at the edge of the sea; and conifers. Ranging in size from algae unicells to giant sequoias, they are the earth's most ancient vegetation, existing before flowering plants, and are an important part of biodiversity today. Identification and ecology of species from the Northeast will also be discussed. Topics covered include: getting to know and enjoy the nonflowering green things; seaweed diversity — the dawn of life; the world of mushrooms and lichens; mosses and ferns; and conifers and other living fossils from the age of dinosaurs.

### Eyewitness to Discovery: The World's Great Archeological Finds

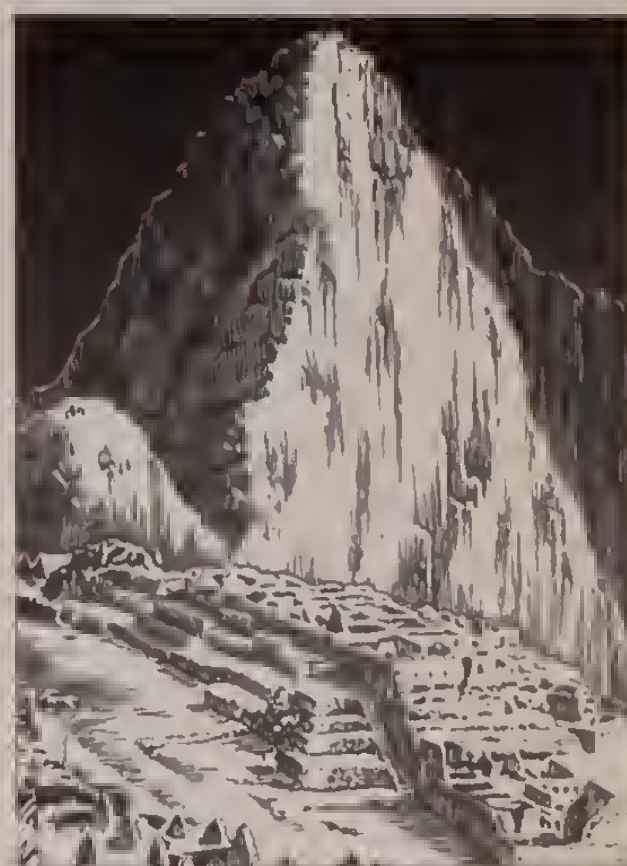
Tuesday, Dec. 5

7:00–8:30 p.m.

\$10; \$9 for Members

**Program Code: ED96208L**

In this lecture Brian M. Fagan, professor of archeology at the University of California, Santa Barbara, and the well-known author of *The Rape of the Nile* and *Time Detectives*, will discuss his newest book, *Eyewitness to Discovery*. In this work Fagan has gathered together vivid accounts of the world's greatest archeological discoveries, from the tomb of Tutankhamen to Orzi the Iceman and Machu Picchu. Fagan will also address developments in the field of archeology beginning with its origins in the early 1700s up to the latest twentieth-century discoveries that come, not from spectacular excavations, but from computer programs or the analysis of pollen grains invisible to the naked eye.



*Machu Picchu; a drawing by museum artist Steven Quinn*

## Workshops, Walking Tours, and Field Trips

### Introduction to Human Origins

Two Fridays and Two Saturdays

Oct. 25 & 26 and Nov. 15 & 16

6:30–8:30 p.m.

\$100 or \$30/session

Limited to 25 people

**Program Code: ED96300X**

Exhibits in the Hall of Human Biology and Evolution and examples from the Museum's collections of fossils and skeletal materials will serve as the tools for examining a number of important questions about human evolution.

Oct. 25 — *Evolutionary Theory*. If evolution is a fact, then why is there so much debate about it? The answer lies not in establishing the reality of evolution but in trying to figure out what makes it tick: What happened in the past? How did it happen? What's happening now? This workshop will investigate the different practical and theoretical components of evolutionary studies.

Oct. 26 — *The Human Skeleton*. This workshop will investigate such questions as: What features do all humans as a species share? What features vary from one individual to another? How do females and males differ from one another?

Nov. 15 — *Early Human Evolution*. In the past



*A representation of Cro-Magnon cave painters*



few years a virtual explosion of new fossil discoveries has forced us to reconsider exactly what it means to be a member of our own evolutionary group, the hominids. This workshop will address questions such as, What distinguishes a hominid from an ape? How were these species related to one another? Which species are most closely related to us?

Nov. 16 — *Later Human Evolution*. This workshop will examine new evidence of the diversity of now-extinct species of *Homo*, as well as researchers' recognition that many of these species probably were not very closely related to *Homo sapiens*. It will address the fundamental question of what constrains variation within a species, as opposed to diversity among species, and attempt to determine how many species of *Homo* there were, their evolutionary relationships to one another, and the definition of the genus *Homo*.

### Humanimal

Four Fridays, Nov. 1, 8, 22, and 29  
6:30–8:00 p.m.  
\$25 for the series, or \$10/session  
Limited to 25 people

**Program Code: ED96301X**

Robert Campanile, Museum docent and lecturer, will lead four lecture tours providing a perspective on the energetic and vital relationships between animals and humans and the interweaving of their existences. The four-part series will begin with an examination of their scientific relationships based on the fundamental drive for survival. Part two explores mutual connections relating to profound power in the spiritual, supernatural, and philosophical worlds. Part three focuses on individual animals, emphasizing their cultural and historical roles in the world of humans. The series concludes with a journey into the realm of monsters and an examination of how and why these animal myths evolved.

### Animal Drawing

Seven Thursdays, starting Oct. 3  
7:00–9:00 p.m.  
\$115 — limited to 25 people

**Program Code: ED96302X**

Join Museum artist Stephen C. Quinn to sketch subjects such as gazelles on the African plains and timber wolves in the snow. Participants will enter the Museum after hours and draw from the famed dioramas and mounted skeletons throughout the halls. Quinn, senior assistant manager in the Exhibition Department, will discuss drawing technique, animal anatomy, and the role of the artist at the Museum. Materials are not included in the cost of the program.

### Walking Tours with Karen Kane

Karen Kane, senior lecturer in the Museum's Education Department, has lived in China, assisted Southeast Asian immigrants resettling in New York,

and given lectures on herbs and food in Chinese medicine. This fall she presents three special walking tours.

### Walking Tour of New York's Chinatown

Saturday, Oct. 12  
10:30 a.m.–1:30 p.m.  
\$25 — limited to 25 people

**Program Code: ED96303X**

Investigate vegetable, meat, noodle, tea, and herb stores with Kane, who will explain Chinese specialties, regional cuisines, and the blend of seasonal, medicinal, and religious beliefs centered on food. The tour includes several tasting opportunities and concludes with a Chinese tea ceremony at Ten Ren Tea and Ginseng Store.

### The Other Chinatown

Saturday, Oct. 26  
10:30 a.m.–1:30 p.m.  
\$25 — limited to 25 people

**Program Code: ED96304X**

Explore the Pacific Basin communities of Chinatown, now the shopping area for the Cambodian, Vietnamese, Sino-Vietnamese, Indonesian, Thai, and Filipino immigrant communities of New York. Discover where to buy ingredients for and how to prepare the latest Asian-fusion cuisine featured in trendy restaurants today. On this tour Kane, joined by Ann Wright-Parsons from the Museum's Anthropology Department, will guide you through Chinatown's diverse Asian shopping areas and escort you on an exciting culinary adventure.

### Japan Is Just Across the River

Saturday, Nov. 9; 10:30 a.m.–1:30 p.m.  
\$50 — limited to 25 people

**Program Code: ED96305X**

A quick trip to Japan is just a bus ride away across the Hudson River. Discover Yaohan Plaza, developed by the biggest department store company in Japan and located in New Jersey. Kane will teach you how to say "it's delicious" in Japanese and introduce you to Japanese vegetables, tea, pastries, pickles, pancakes, and sushi. In addition, you will learn where the Japanese community stocks up on books, traditional clothing, pottery, gifts, and golf supplies. The tour includes several tasting opportunities.

### Fall Botany Walking Tours in Central Park

Choice of three sessions; 9:00–11:00 a.m.  
\$12, and limited to 25 people  
Saturday, Sept. 21 (**Program Code: ED96306X**)  
Saturday, Sept. 28 (**Program Code: ED96307X**)  
Wednesday, Oct. 9 (**Program Code: ED96308X**)

A two-hour morning walk in Central Park to ob-



serve signs of fall in the flowers and trees. The Shakespeare Garden, Henshead, and Strawberry Fields will be explored as they change with the season. Participants will learn about plant identification and ecology from William Schiller, lecturer in botany in the Department of Education.

### Fall Bird Walks in Central Park

Nine Tuesdays, Sept. 3–Oct. 29  
7:00–9:00 a.m. **Program Code: ED96309X**  
Nine Wednesdays, Sept. 4–Oct. 30  
7:00–9:00 a.m. **Program Code: ED96310X**  
Nine Thursdays, Sept. 5–Oct. 31  
9:00–11:00 a.m. **Program Code: ED96311X**  
\$50 per series — Limited to 25 people per series

Observe the fall migration of birds in Central Park with naturalists Stephen C. Quinn (Tuesdays), Joseph DiCostanzo (Wednesdays), and Harold Feinberg (Thursdays). Learn how to use field marks, habitat, behavior, and song as aids in bird identification.

### Cape Cod Whale Watch Weekend 1997

Friday to Sunday, May 16–18  
\$450 (per person, double occupancy)  
Limited to 45 adults

**Program Code: ED96313X**

This nature weekend offers diverse views and insights into Cape Cod's natural and cultural history. Events include three four-hour whale watch cruises by private charter, a lecture by leading whale expert Dr. Stormy Mayo, a guided birding walk along the trails of Wellfleet Bay Wildlife Sanctuary, a stop at Mystic Aquarium, and time to explore Provincetown or stroll along the beach. Fee includes transportation, two nights' lodging, meals, boat cruises, lectures, and admission to the bird sanctuary and aquarium. Uta Gore, a natural science instructor in the Museum's Education Department, and Stephen C. Quinn, naturalist and enthusiastic birder, lead this trip.

### Cape May Birding Weekend

Friday to Sunday, Oct. 18–20  
\$350 (per person, double occupancy)  
Limited to 45 adults

**Program Code: ED96314X**

Join Museum naturalists for a weekend of fall birding at Cape May, New Jersey, one of the world's bird-watching hot spots. The trip includes naturalist-led walks, informal lectures, a stop at the famed Brigantine National Wildlife Refuge, and two boat excursions to observe seabirds and possibly whales and dolphins. Fee includes accommodations, food, and transportation. Trip leaders are Lisa Bresl, senior natural science instructor and lecturer in the museum's Education Department, and Stephen C. Quinn, naturalist and experienced birder.

### A Delaware Valley Weekend: Fall Colors on the Old Mine Road

Saturday and Sunday, Oct. 12–13  
\$300 (per person, double occupancy)  
Limited to 45 adults

**Program Code: ED96315X**

Join Herbert Kraft, New Jersey's foremost archaeologist, and Robert Grumet, leading regional ethnographer, for a two-day trip during the height of the fall colors. Examine the facts and myths behind the origins of Old Mine Road, a transportation corridor paralleling the Kittatinny and Shawangunk Mountains that has linked the Upper Delaware Valley with the



Australian barrier reef habitat: Hall of Oceanic Birds



Hudson River for thousands of years. Spend the night at the picturesque Eddy Farm Inn vacation resort near Port Jervis, where Kraft will present a slide-illustrated lecture tying the two days' observations together. For an itinerary and more information about this tour, call the Education Department number listed below.

## Free Lectures

### One River: Explorations and Discoveries in the Amazon Rain Forest

Tuesday, Sept. 10  
7:00 p.m.  
Kaufmann Theater

Ethnobotanist and author Wade Davis offers a talk based on his new book *One River: Explorations and Discoveries in the Amazon Rain Forest*, illustrated with archival footage and slides. The book chronicles the explorations of legendary botanist Richard Evans Schultes and Davis himself, who was

his student. In 1941 Schultes took a leave from Harvard University and disappeared into the Amazon basin. He spent nearly all of the next fourteen years there, learning the secrets of medicinal and psychoactive plants from native shamans. Tim Plowman and Wade Davis followed in his footsteps and made their own discoveries but could see the signs of destruction of the rain forest and the loss of the vast knowledge of the Indians who live there.

### Dinosaurs of the Flaming Cliffs

Thursday Sept. 12  
7:00-8:30 p.m.  
Kaufmann Theater

Michael Novacek, Provost of Science and Curator of Vertebrate Paleontology at the Museum, recounts the adventures, struggles, and triumphs of the Mongolian-American Museum Expeditions to the incredibly rich fossil territory of the Gobi Desert. Several seasons of exploration by the first Western team since the legendary Museum expeditions under Roy Chapman Andrews in the 1920s culminated in the discovery of perhaps the richest site from the age of

the dinosaurs — an extraordinary assemblage of dinosaur eggs, embryos, and hundreds of skeletons of dinosaurs and mammals. The story of the expedition provides lessons about the fossil record and the evolution of life. There will be a book signing for Novacek's new publication, *Dinosaurs of the Flaming Cliffs*, published by Anchor/Doubleday.

Please note that Members' prices also apply to students and senior citizens, and that there is no discount for workshops, walking tours, or field trips. If you have any questions, or wish to receive a brochure with more detailed information on these programs, please call (212) 769-5310. To register, use the coupon on page 9, under the Education Department heading, or call Central Reservations with your credit card number. Be sure to include the program codes.

## Fall 1996 Children's Workshops

These workshops are presented by the Department of Education. Children should bring a bag lunch with them for the three-hour programs. To register for one or more workshops, fill out the Central Reservations Coupon on page 9, under Education Department, and don't forget to include the program code.



Children can reenact rituals of religion and daily life in a Fall Education Department workshop. Above: a ritual performance by Tibetan Buddhist monks

In this laboratory program, children study human origins. Museum casts of fossil ancestors help them trace our evolutionary lineage and that of other primates. Presented by Anita Steinhart, physical anthropology doctoral candidate.

### A Whale's Tale

Sunday, Nov. 3; 10:30-11:30 a.m.  
For children age 4, with one adult; \$20  
Program Code: ED96403C

As they help tell the tale of a humpback whale's migration from the warm waters of the south to the colder northern seas, children will learn about this fascinating whale and the other mammals that share its ocean. This exciting program also includes film, song, a take-home activity sheet, and a visit to the Hall of Ocean Life. Presented by Dayna Reist, early childhood instructor at Bank Street College of Education.

### All About Fish

Sunday, Nov. 17; 10:30 a.m.-noon  
For children age 5, with one adult; \$20  
Program Code: ED96404C

This hands-on program explains fish shapes and how fish breathe and swim. It includes making fish prints and visiting the Hall of Ocean Life. Presented by Judith Levy, who has taught at the Carnegie Museum of Art.

### How We Hear and How We See

Sunday, Nov. 24; 10:30 am-1:30 pm  
Appropriate for ages 7-8; \$25  
Program Code: ED96405C

Taking part in exciting experiences focused on vision and hearing, children make their own drums and kaleidoscopes. Presented by Dina Schlesinger, computer science teacher, New York City Public School 140.

### Drawing Fossils

Sunday, Nov. 17; 10:30 a.m.-1:30 p.m.  
Appropriate for age 8; \$25  
Program Code: ED96406C

Children learn the basics of drawing with pen and ink, watercolor techniques, and contour drawing as they observe animal anatomy and sketch in the fourth-floor Dinosaur and Vertebrate Origins halls. Presented by Angela Tripi-Weiss, art director at New York City Public School 87.

### Three Centuries of Thanksgiving

Saturday, Nov. 9; 10:30 a.m.-1:30 p.m.  
Appropriate for ages 8-9; \$25  
Program Code: ED96407C

Each November, Thanksgiving takes us back to an exciting time in our nation's history, in our minds we

form images of stately turkeys and the *Mayflower*. Thanksgiving is also the story of the harvest. Join us as we revisit olden times and rediscover the meaning of Thanksgiving. The halls of the Museum will provide the scenery — pumpkins, corn, Native Americans, and maybe even the *Mayflower*! Presented by Robert Campanile and Laura Weinstein, Museum volunteer and tour guide/lecturers.

### The Night Prowlers

Friday, Oct. 4; 4:30-5:30 p.m.  
Appropriate for ages 8-10; Fee: \$20  
Program Code: ED96408C

Sharpen your senses and uncover the everyday creatures under the night sky through a discovery tour of the magical and eerie world of natural history in the Museum's exhibitions. Presented by Robert Campanile and Laura Weinstein, Museum volunteer and tour guide/lecturers.

### Kitchen Chemistry

Sunday, Oct. 20; 10:30 a.m.-1:30 p.m.  
Appropriate for ages 7-8; \$25  
Program Code: ED96409C

Children will experiment with many different types of science. Some of the activities are making an exploding volcano, turning milk into glue, and making invisible ink from red cabbage. Presented by Jennifer Kahn, afterschool program instructor at New York City Public School 87

### Ritual and Daily Life

Sunday, Oct. 27; 10:30 a.m.-1:30 p.m.  
Appropriate for ages 8-9; \$25  
Program Code: ED96410C

Children reenact the rituals of religion and daily life from the Museum's dioramas. Costumes, props, and cultural objects are included. Presented by Heather Nielsen, senior Museum instructor, and Denise Thomas, education director of Pushcart Players.

### Storytelling for Children

Sunday, Oct. 6; 10:00 a.m.-1:30 p.m.  
Appropriate for ages 8-10; \$25  
Program Code: ED96411C

Join us for this wonderful event with a Native American storyteller from the Pacific Northwest. Children will hear about how day and night were created and about animals and trees that come to life and remind us of our friends and relatives. Presented by Johnny Moses, an oral historian of the Tullip and Nootka cultures.

### Puppets

Sunday, Nov. 3; 10:30 a.m.-1:30 p.m.  
Appropriate for ages 9-10; \$25  
Program Code: ED96412C

Puppets and masks have long been used to entertain and for ritual and religion. In a visit to the Museum's halls, children will discuss the uses and significance of masks and puppets in various cultures. They will make a hand puppet of their own design using natural materials and found objects and work on developing a character and voice for their creation. Presented by Deborah Van Wetering, costume and toy designer.

### Beautiful Swimmers

Sunday, Oct. 6; 10:30 a.m.-1:30 p.m.  
Appropriate for ages 8-9; \$25  
Program Code: ED96400C

Learn about sawfish, sharks, and angelfish in this discovery program. Fish adaptations are explored through games, fish printing, songs, film, and a visit to the Museum's Hall of Ocean Life. Presented by Meryl Kafka, assistant director of education at the New York Aquarium for Wildlife Conservation.

### Halloween Surprise

Sunday, Oct. 20; 10:30 am-1:30 pm  
Appropriate for ages 9-10; \$25  
Program Code: ED96401C

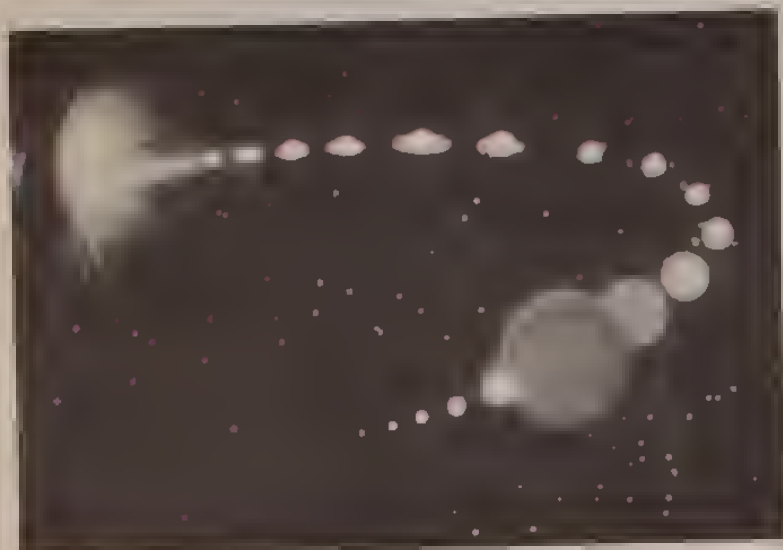
To get ready for Halloween festivities, children will create their own movable skeleton figure, inspired by the Museum's skeletons. Presented by Ross Lewis, artist and children's art educator.

### Human Origins

Two Sundays, Oct. 20 and 27; 10:30 am-1:30 pm  
Appropriate for ages 10-11; \$30  
Program Code: ED96402C



# Courses for Stargazers



Space art — Alpha-Omega

## Astronomy: Basic Courses

### Introduction to Astronomy

Eight Mondays, beginning Sept. 16  
**Program Code: HP1**  
or eight Tuesdays, beginning Sept. 17  
**Program Code: HP2**

6:30-8:40 p.m.  
\$95; \$85.50 for Members  
This is designed as a first course in astronomy to introduce the universe to those with no mathematics or physics background. The course explains common phenomena, such as planet motions, the rising and setting of the sun and moon, and so on, and serves as a prerequisite for the intermediate-level courses. No previous knowledge of astronomy is assumed. Instructors: Craig Small (Mondays); Francine Jackson (Tuesdays)

### Adventures in Astronomy

Seven Saturdays, beginning Sept. 28; 9:40-11:40 a.m.  
\$85; \$76.50 for Members  
**Program Code: HP5**  
Confused about the difference between a star and a planet? Can't tell astronomy from astrology? Don't know Aquarius from Sagittarius or a black hole from a brown dwarf? Join us for this Saturday course for the whole family (recommended for ages 10 and up). We will use the Sky Theater, laboratories, and astronomical equipment to explore the birth and death of stars, the origin of the universe, and much more. First hour of each session meets in the Sky Theater; second hour in Classroom 1. Instructor: Craig Small

### Celestial Highlights

Four selected Mondays: Sept. 16, Oct. 21, Nov. 18, Dec. 16; 6:30-7:40 p.m.  
\$50; \$45 for Members  
**Program Code: HP8**  
This special course illumi-

nates the most interesting and exciting aspects of the skies of the coming month. Using the Zeiss Planetarium Projector in the Sky Theater, students learn how to find the prominent constellations of the season, as well as where and when to see beautiful gatherings of the moon and planets. Each month students preview upcoming celestial events and learn about planets, current space missions, and how to hunt down special "deep space treasures." Instructors: Joseph Rao and Henry Bartol

### Stars, Constellations, and Legends

Four Wednesdays, beginning Oct. 2; 6:30-8:40 p.m.  
\$50; \$45 for Members  
**Program Code: HP9**  
This course introduces students to the lore of the sky. Using the Zeiss Planetarium Projector, the prominent stars, constellations, and other sky objects of both northern and southern hemispheres are identified, and the myths and legends of many cultures relating to the sky are explained. No prerequisites are necessary. Instructor: Steven Beyer

### How to Use a Telescope

Eight Mondays, beginning Sept. 16; 6:30-8:40 p.m.  
\$95; \$85.50 for Members  
**Program Code: HP10**  
An introduction to choosing and using a small amateur telescope, this class covers the basic optics of telescopes, equatorial and altazimuth mountings, eyepieces, collimating a telescope, setting up for observation, locating objects in the sky, and using charts and other aids for observation. No previous knowledge of astronomy is assumed. This course is recommended both for those considering the purchase of a telescope and for those who have one but aren't sure how to use it. Instructor: Samuel Storch

## Astronomy: Intermediate Courses

### The Hubble Space Telescope: Mission, Method, Results

Six Wednesdays, beginning Sept. 18; 6:30-8:40 p.m.  
\$70; \$63 for Members  
**Program Code: HP13**  
This course focuses on the Hubble as a complex vehicle designed and operated by skilled and dedicated scientists who are, in the words of Galileo, resolving many of the "wondrous things" in our richly endowed universe. With the help of models, the latest Hubble images available, and guest speakers who actually participated in HST activities, students learn about the advanced design, research projects, and capabilities of the Hubble, its imaging, its overall scientific mission, and so on. Instructor: William Dorsey

### Pioneering Space

Eight Thursdays, beginning Sept. 19; 6:30-8:10 p.m.  
\$70; \$63 for Members  
**Program Code: HP17**  
This course reviews the history, technical concepts, and future prospects for space-faring ventures. Selected topics will include spaceflight mechanics, planetary terraforming, orbital settlements, space resources, the interception of Earth-bound asteroids, and the feasibility of interstellar travel. Or — how to be your own rocket scientist in eight easy lessons. No specialized background is assumed. Instructor: Michael Allison

### The Life Cycles of Stars

Six Wednesdays, beginning Sept. 18; 6:30-8:40 p.m.  
\$60; \$54 for Members  
**Program Code: HP18**  
This course traces the past and future histories of the sun and other stars found in the dust lanes and gas clouds of the Milky Way. It probes beneath the glowing exteriors of the stars to examine their energy-producing cores. The course culminates with a discussion of the more massive stars that may become black holes, from which neither matter nor radiation can escape. Instructor: Sune Engelbrektson

## Ethno-astronomy

### An Anthropological View of the Sky

Six Tuesdays, beginning Sept. 17; 6:30-8:10 p.m.  
\$60; \$54 for Members  
**Program Code: HP23**  
Human culture has been intimately connected to the sky since early times. By observing the sun, moon, and stars and their impact on

Earth and life, people learned to keep time, create calendars, and navigate the oceans. Numerous societies developed stories relating to the heavens and built monuments corresponding to celestial positions. This new course offers a fascinating anthropological look at the historical interrelationship between human beings and the sky. Instructor: John Beatty

## Meteorology

### Weather and Climate

Eight Thursdays, beginning Sept. 19; 6:30-8:40 p.m.  
\$95; \$85.50 for Members  
**Program Code: HP24**  
Everyone talks about the weather. This course is for those who would like to know more about the atmosphere, including how it works and how it affects us. Topics covered include the structure and circulation of the atmosphere, as well as aspects of weather forecasting. No formal training is required. Instructor: Barry Grossman

## Aviation

### Ground School for Private and Commercial Pilots

Fifteen sessions, Tuesdays and Thursdays, beginning Sept. 17 and Sept. 19  
6:30-9:00 p.m.  
\$200; \$180 for Members  
**Program Code: HP28**  
This course primarily provides preparation for Private Pilot and Commercial Pilot FAA written examinations but can also help with Biennial Flight Review and fear of flying, along with aspects of flight training and aircraft ownership. Students plan cross-country trips and use the flight deck simulator. The instructor is FAA certified. Class meets twice a week, concurrently with Ground School for Instrument Pilots, and includes an optional trip to tower and center. Instructor: Ted Cone

### Ground School for Instrument Pilots

Fifteen sessions, Tuesdays and Thursdays, beginning Sept. 17  
6:30-9:00 p.m.  
\$200; \$180 for Members  
**Program Code: HP30**  
Intended primarily for those planning to take the FAA written examination for the instrument rating, this course also provides updated information for instrument competency check and familiarizes VFR pilots with instrument techniques. Included is extensive use of flight computers. Students also use the flight deck simulator. The instructor is FAA certified. Course meets twice a week concurrently with Ground School for Private and Commercial Pilots, and includes an optional trip to tower and center plus additional specialized sessions. Instructor: Ted Cone

## Navigation: Basic Course

### Navigation in Coastal Waters

Eight Mondays, beginning Sept. 16; 6:30-9:00 p.m.  
\$110; \$99 for Members  
**Program Code: HP32**  
This is an introduction to piloting and dead reckoning for present and prospective owners of small boats. It provides practical chart work and includes such topics as compass bearings, the running fix, current vectors and tides, and rules of the nautical road. Boating safety is emphasized. No prerequisites. Students are required to purchase an equipment kit. Instructor: Gregory Smith

## Navigation: Intermediate Courses

### Introduction to Celestial Navigation

Ten Thursdays, beginning Sept. 19; 6:30-8:40 p.m.  
\$110; \$99 for Members  
**Program Code: HP35**  
This class is for those who have completed Navigation in Coastal Waters or who have equivalent piloting experience. It covers the theory and practice of celestial navigation, the sextant and its use, and the complete solution for a line of position. Emphasis is placed on problem solving and chart work. Students are required to purchase a copy of *Sight Reduction Tables for Marine Navigation, Volume 3* (Pub. No. 229). Instructor: Gregory Smith

### Troubleshooting Celestial Navigation

Four Tuesdays, beginning Sept. 17; 6:30-8:40 p.m.  
\$50; \$45 for Members  
**Program Code: HP37**  
This short course is designed for students who are self-taught or merely familiar with techniques for navigating by the stars but need some practice to get jump-started. Sessions include a review of the basic theory of celestial navigation, precalculation of star sights, calculation of LAN and twilight for star sights, and use of celestial computers, sextants, and shooting technique. Time is allotted to address the particular trouble spots that students have encountered. No text is required; handouts are provided. Instructor: David Berson

**Note: Members' prices also apply to students and senior citizens. To register for these courses, use the Central Reservations Coupon on page 9, under Hayden Planetarium, or call Central Reservations with your credit card number. For more detailed information about these courses, call (212) 769-5200.**





## THIRD ANNUAL FAMILY PARTY

**Wednesday, October 9, 1996**  
**5:00—7:30 p.m.**

Arts and crafts, science and educational activities, treasure hunts, entertainment, music, buffet dinner

**For more information, please call: (212) 769-5149**

Please send me (indicate how many of each):

- \_\_\_\_\_ Children's ticket(s) at \$50 each
- \_\_\_\_\_ Adult ticket(s) at \$100 each
- \_\_\_\_\_ Family package(s) (any combination of 4 tickets) at \$250 each

Enclosed is my check for \$ \_\_\_\_\_

(Each ticket is tax-deductible less \$40)

— Please send me an invitation.

Please print:

Name: \_\_\_\_\_

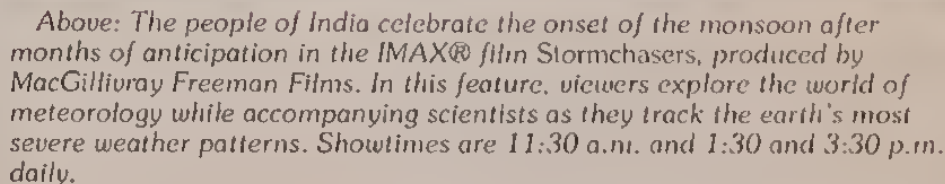
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Daytime telephone: \_\_\_\_\_

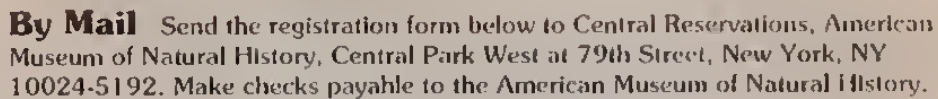
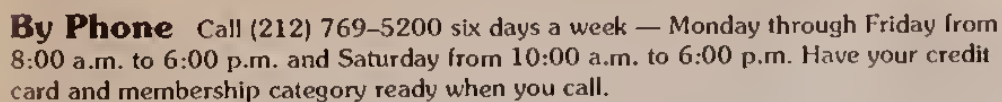
Please make checks payable to the American Museum of Natural History and mail with coupon to: *The Family Party*, American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192.

# The IMAX® Experience



Beginning in September, the IMAX® theater will also be screening *Cosmic Voyage*, presented by the Smithsonian's National Air and Space Museum and the Motorola Foundation. Using 3D computer-graphic images, *Cosmic Voyage* explores phenomenal events, such as the explosion of the Big Bang and the development of our own solar system. Showtimes are 10:30 a.m. and 12:30, 2:30, and 4:30 p.m. daily.

## Central Reservations Coupon



## Membership Programs

<b>Membership Programs</b>			<b># of Membership Reservations</b>	<b># of non-Membership Reservations</b>	<b>Total Amount Enclosed</b>
<i>Program Title</i>	<i>Code</i>	<i>Date/Time</i>			
					\$ _____
					\$ _____
					\$ _____
					\$ _____
					\$ _____
<b>Education Department</b>					\$ _____
					\$ _____
					\$ _____
					\$ _____
					\$ _____
					\$ _____
<b>Hayden Planetarium</b>					\$ _____
					\$ _____
					\$ _____
					\$ _____
					\$ _____
				<b>Total Amount Enclosed:</b>	\$ _____

**Total Amount Enclosed:** \$ \_\_\_\_\_

Name: \_\_\_\_\_

**Phone (day):** \_\_\_\_\_ **(eve.):** \_\_\_\_\_

Address: \_\_\_\_\_

Charge my: Amer. Ex. \_\_\_\_\_ Visa \_\_\_\_\_ Master Card \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Card Number: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_

**Membership Category:** \_\_\_\_\_

**Signature:** \_\_\_\_\_ **Expiration Date:** \_\_\_\_\_



## At the Museum Shops

Visit the Museum Shops to see our newest product line based on the painting *City of Stars* by Hayden Planetarium artist Brian P.M. Sullivan. This beautiful image presents a black city skyline silhouetted against a diaphanous spiral galaxy. Products based on the painting include an all around printed T-shirt, a set of desk boxes, and a mouse pad, as well as magnets and jewelry items. The image is also available as a postcard.

Although the exhibit *Amber: Window to the Past* closes September 2, the Amber Shop on the Museum's third floor will remain open through the end of the month. Watch for the opening of the new gems and mineral section of our Main Shop by October 1. This remodeled area of the Main Shop will carry a wide selection of specimens, jewelry, and art objects made from minerals, gems, and amber.

## Exhibit of the Month

### Sewing Cedar

by Erica Okone



A wood coffin made by Haida craftsmen

One of the world's largest temperate rainforests lies along the Pacific coast of North America, from southern Alaska to northern California. The mild, wet climate produces lush forests of spruce, cedar, hemlock, and fir trees. Taking advantage of the natural resources around them, the indigenous people of the Northwest Coast used these trees for practically everything; canoes, houses, clothing, totem poles, ceremonial masks, tools, fishing gear, and baskets were all made of wood. As you walk around the Hall of Northwest Coast Indians on the first floor, you will notice that it is dominated by wooden artifacts. One of the most inventive creations were boxes made of sewn cedar.

Boxes were made from trees felled during controlled fires. Each log was split using wedges and a stone maul, a tool similar to a hammer; red cedar naturally splits into straight planks. The planks were then smoothed with bone-bladed adzes, scored in three places, then steamed over boiling water and

bent into the shape of an open box. The two ends of each box were sewn together with spruce roots, and the bottom was sewn on in a similar fashion or attached with wooden pegs. Clam paste was applied to all the seams for waterproofing.

The boxes were used for storing goods such as oil and even as cooking pots. Those for everyday use were usually left undecorated, but others reserved for special occasions (the ones used as coffins, for example) were elaborately carved or painted with a family's crest design. These boxes illustrated important events in a family's history and included abstract depictions of such creatures as beavers, bears, or killer whales; figures that represent legendary encounters with spiritual beings in animal form.

Although modern carpenter's tools are now readily available, many artists working today in Native American communities on the Northwest Coast continue to make hand-sewn wooden boxes in the traditional way.



## Museum Employees Join the Fight Against AIDS

On May 19, eleven employees of the Museum joined together to participate in the city-wide 6.2-mile walk to raise money for people with AIDS. The group was able to contribute \$1,441 dollars to the campaign. They are hopeful that next year, even more employees will lend their time and energy to join in the fight against AIDS.

Pictured above, bottom, from left to right, Sheila Greenberg (Membership), Francine Oliver (Planetarium), Maria Diana (Building Services), Annie Duran (Volunteer), and Elaine Blance and Brenda Rivera (Budget); top row, left to right, Traci Buckner (Membership), Jerome Williams (Visitor Services), Jay Chakradorty (Payroll), Karen Kapp (Government Relations), and Michael Conroy, Wellington Houston, and F. Frances.

Additional walkers not pictured above were Kimberly Daniels (Maintenance), and Timothy Flynn (Building Services).

## Dino-Mite Senior Deal!

September is Senior Citizen month!

### 25% Off Food

to all Senior Citizens throughout the month.

Hours: Lunch, Mon. - Fri: 11:30 - 3:30

Saturday and Sunday: 11:00 - 4:00

Dinner seating, Fri. - Sat: 5:00 - 7:30

For Reservations call 212-874-3131

25%  
OFF

25% Discount Off Food  
for Senior Citizens

25%  
OFF

Coupon cannot be combined with any other offer.

Available in Garden Cafe only.

Expires September 30, 1996





# List of Exhibits

Exhibit	Location	On View Until
<i>Amber: Window to the Past</i> (separate admission)	Gallery 3, 3rd floor	9/2/96
<i>Scientists and Journalists — One Story, Two Voices</i>	1st floor, outside the Hall of Human Biology	9/29/96
<i>Witness: Endangered Species of North America</i>	Gallery 77, 1st floor	10/6/96
<i>Okavango: Africa's Last Eden</i>	Akeley Gallery, 2nd floor	1/5/97
<i>Purposeful Traveler: Titian Ramsey Peale</i>	Library Gallery, 4th floor	2/1/97

## Audio Expedition

The audio tour *Expedition: Treasures*, which tells the story behind fifty selected items from the Museum collections, now includes *Expedition: Fossils*, featuring the newly opened Hall of Vertebrate Origins. This CD audio player tour provides over five hours of random-access programming; visitors can select what is of special interest to them and chart their own course through the exhibits. The tour is available in English and Spanish.

## Special Notice

The Museum-wide exhibit *Expedition (I): Treasures from 125 Years of Discovery* continues on a reduced scale. The yellow banners marking the treasures will gradually be replaced with labels on the exhibit cases. The Field Stations will remain in place, and distribution of guidebooks to the treasures will continue while the supply lasts.

# Museum Notes

## Hours

Exhibition Halls  
Mon.–Thurs. & Sun. .... 10:00 a.m.–5:45 p.m.  
Fri. & Sat. .... 10:00 a.m.–8:45 p.m.  
The Museum Shop  
Mon.–Thurs. & Sun. .... 10:00 a.m.–5:45 p.m.  
Fri. & Sat. .... 10:00 a.m.–7:45 p.m.  
The Junior Shop  
Mon.–Fri. .... 10:00 a.m.–4:45 p.m.  
Sat. & Sun. .... 10:00 a.m.–5:45 p.m.  
The Museum Library  
Tues.–Fri. .... 11:00 a.m.–4:00 p.m.

## The Natural Science Center

There are many wild places in the New York City area, and the Natural Science Center features live plants and animals from these local habitats. Closed Mondays and holidays.  
Tues.–Fri. .... 2:00–4:30 p.m.  
Sat. & Sun. .... 1:00–4:30 p.m.

## The Discovery Room

A hands-on examination of artifacts and specimens awaits visitors to the Discovery Room. Due to renovation in the former Hall of Intertebrates, the

Discovery Room will be closed until further notice. Watch for an announcement in Rotunda about the reopening.

## Museum Dining

Diner Saurus Fast Service Eatery  
Daily .... 11:00 a.m.–4:45 p.m.  
Garden Cafe  
Reservations: (212) 769-5865  
Lunch: Mon.–Fri. .... 11:30 a.m.–3:30 p.m.  
Dinner: Fri. & Sat. .... 5:00–7:30 p.m.  
Brunch: Sat. & Sun. .... 11:00 a.m.–4:00 p.m.  
Whale's Lair  
Fri. .... 3:00–8:00 p.m.  
Sat. .... Noon–8:00 p.m.  
Sun. & most holidays .... Noon–5:00 p.m.  
Snack Carts  
Sat. & Sun. .... 11:00 a.m.–4:00 p.m.

## Entrances

During Museum hours visitors can enter the building through the 77th Street entrance, the Planetarium entrance (81st Street), the first- and second-floor Roosevelt Memorial Hall entrances (79th Street and Central Park West), or through the subway entrance. **Visitors attending programs after hours can enter the building at 79th Street and Central Park West or through the parking lot at 81st Street.**

## Phone Numbers

Museum information ..... (212) 769-5100  
Planetarium information ..... (212) 769-5900  
Education Department ..... (212) 769-5310  
Discovery Tours ..... (212) 769-5700  
..... toll-free outside NY State: (800) 462-8687  
IMAX® ..... (212) 769-5034  
Development ..... (212) 769-5151  
Communications ..... (212) 769-5800  
Volunteer Office ..... (212) 769-5566  
Museum Shop ..... (212) 769-5150  
Library Services ..... (212) 769-5400  
Natural History magazine ..... (212) 769-5500  
Members' Choice Collection ..... (212) 769-5530  
Members' Birthday Parties ..... (212) 769-5542  
Planned Giving Office ..... (212) 769-5119  
..... toll-free outside NY State: (800) 453-5734  
Central Reservations ..... (212) 769-5200

## Parking

Paid parking is available for those attending Museum programs. The parking lot is open every day from 7:00 a.m. till 11:30 p.m. The parking lot has a capacity of 100 vehicles and is open on a first-come, first-served basis.

Call the Membership Office at (212) 769-5606 for information about additional parking.

# Happenings at the Hayden

## Sky Show

### Seven Windows to the Universe

This Sky Show illustrates how astronomers use not only visible light but also gamma rays, X-rays, microwaves, and radio waves to unlock the secrets of the universe.

#### Showtimes:

Mon.–Fri.: . . . 1:30, 2:30, 3:30, & 4:30 p.m.  
Sat.: . . . 1:00, 2:00, 3:00, 4:00, & 5:00 p.m.  
Sun.: . . . . . 1:00, 2:00, 3:00, & 4:00 p.m.

#### Admission (Family/Dual and Higher Members):

Adults: \$6  
Children (2–12): \$3.50

Call (212) 769-5100 for non-Members' prices and additional information.

## Frontiers in Astrophysics

The Hayden Planetarium offers popular-level, illustrated talks in astronomy and space science by leading astrophysicists. For more information, call (212) 769-5200.

## Exhibits

### Comet Rendezvous

In conjunction with the appearance of Comet

Hyakutake, the Planetarium is presenting a special exhibition illustrating what the core of a comet looks like. The exhibition features a working model of a comet nucleus that releases jets of gas in the same way an actual comet does as it approaches the sun.

### Interpretations of the Cosmos: A Retrospective of Art Used in Planetarium Sky Shows and Exhibits

For nearly every show and exhibit in the sixty-year history of the Hayden Planetarium, art was created in the cause of science. Sketches, paintings, models, and photographs have been selected from the Hayden archives and put on display for this retrospective of space art. From renditions of the sun, moon, and planets to portrayals of galaxies and the distant universe, the art has always captured the most exciting science of the times.

## Children's Shows

Special shows for children and their families are offered every Saturday and Sunday at 11:00 a.m. *Teddy's Quest*, for ages 3 to 9, tells the story of a teddy bear who travels through space and discovers the answers to such questions as how stars are formed, how to identify constellations, and what it's like on the moon. Every Sunday at 11:00 a.m. *Wonderful Sky* is a special Sky Show for preschoolers. Children sing along with images of

their favorite Sesame Street Muppets as they learn about rainbows, the phases of the moon, sunsets, and stars. Presented on Saturday, September 7, at 11:00 a.m.

*The Secret of the Cardboard Rocket*, for ages 6 to 9, explores all of the major objects in our solar system, including the sun, moon, all nine planets, and some of their satellites. Saturdays, September 14 and 21, at 11:00 a.m.

*Robots in Space* features Lucasfilm's R2D2 and C-3PO® and has been created especially for children ages 7 to 12. Together with a live host, these famous space robots take children on a journey from the earth to other planets and distant black holes. Presented on Saturday, September 28, at 11:00 a.m.

Tickets can be purchased the day of the show. Admission for Family/Dual and Higher Members is \$6 for adults and \$3.50 for children. Members can purchase up to four tickets at the Members' price. For additional information, call (212) 769-5200.

## Laser Light Shows

Journey into another dimension where laser visuals and rock music combine to create a dazzling 3-D experience of sight and sound. Shows are presented on Friday and Saturday at 7:00, 8:30, and 10:00 p.m. For prices and show schedule, telephone (212) 769-5100.

**It's always a good idea to call before visiting the Planetarium, since prices, programs, and showtimes are subject to change without notice. For general Planetarium information, call (212) 769-5100.**



**1 2**

**3 4**

**6**

**7 8:30 a.m.** Sandy Hook — by Land and by Sea. Members' day trip, led by Sidney Horenstein. Page 2.

**September Is Senior Citizens' Month!**

For information on a special offer for a senior group tour package, call (212) 769-5252.

## Full House

**An Evening with Stephen Jay Gould**

October 15, 7:00 p.m.  
Main Auditorium  
**Program Code: MM9-10**

See next month's Rotunda for more details

**8 2:00 p.m.** New York Shell Club. Room 319. Free.

**10 7:00 p.m.** One River: Explorations and Discoveries in the Amazon Rain Forest. Speaker, Wade Davis. Kaufmann Theater. Education Department program. Page 7. Free.

**11 5:30 p.m.** New York Mineralogical Club. Room 319. Free.

**7:00 p.m.** Enduring Harvests. Speaker, E. Barrie Kavash. Kaufmann Theater. Page 2.

**12 7:00 p.m.** Dinosaurs of the Flaming Cliffs. Speaker, Michael Novacek. Kaufmann Theater. Education Department program. Page 7.

**15**

**17**

**19**

**20 6:30 p.m.** Beyond Words. Members' guided tour with Robert Campanile. **Sold Out.**

**21 11:00 a.m. to 1:00 p.m.** — morning and afternoon sessions. **Public Science Forum: Understanding Human Evolution.** Education Department symposium held in conjunction with the exhibit *Scientists and Journalists — One Story. Two Voices: A Century of Science Reporting in The New York Times.* Call 769-5310 for information.

**22 2:00 p.m.** New York Paleontological Society. Room 319. Free.



Indian dancer Ritha Devi

**24 7:30 p.m.** Linnaean Society. Linder Theater. Free.

### Carry the Card!

Please help us serve you more efficiently by bringing your membership card with you each time you visit. Your entry into the Museum is easier when you do. Thanks!

**26 7:00 p.m.** The Evolution and Extinction of the Dinosaurs. Speakers, David Fastovsky and David Weishampel. Kaufmann Theater. Tickets required. Page 2.

**27 6:00 p.m.** Spinal Tap: From Broincase to Brainstorm. Members' guided tour of the Museum, led by Robert Campanile. Page 2.

**7:00 p.m.** In-Young Sohn Dance Company. Performance of traditional Korean dance and song. Tickets required. Page 3.

**28 10:30 a.m., 12:30 p.m., or 2:30 p.m.** — three sessions. *The World of the Polar Bear.* Members' adult/child workshop, with Christine Economos. Tickets required. Page 2.

**2:00 p.m. and 7:00 p.m.** — two performances. In-Young Sohn Dance Company. Performance of traditional Korean dance and song. Tickets required. Page 3.

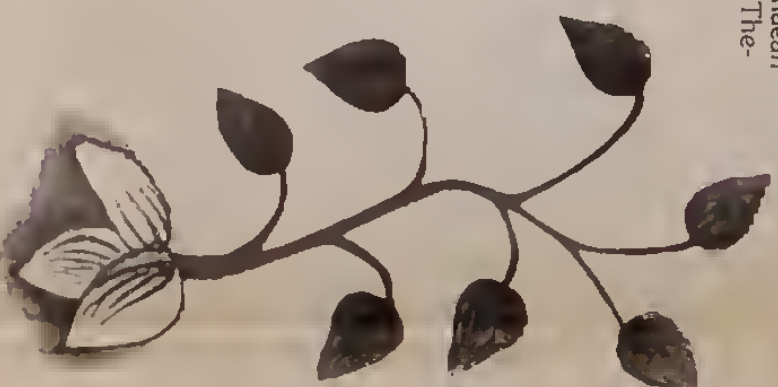
### Come to the Festival!

## Celebrate India

**Saturday, Sept. 14 — 11:00 a.m.-8:00 p.m.**  
**Sunday, Sept. 15 — 11:00 a.m.-5:00 p.m.**

Join a two-day celebration of India, ancient, modern, and cross-cultural. The festival honors the role of women in India and opens with a performance by internationally renowned dancer Ritha Devi. Highlights of the festival — which will take place in the Linder and Kaufmann theaters, the Blum Classroom, the Calder Laboratory, the Leonhardt People Center, and the Hall of Birds of the World — include craft demonstrations; classical, folk, and contemporary music and dance performances; storytelling; children's workshops; and lectures on health and yoga. For a full schedule of festival events, call (212) 769-5315.

**29 2:00 p.m.** In-Young Sohn Dance Company. Performance of traditional Korean dance and song. Tickets required. Page 3.



## September 1996 American Museum of Natural History

Printed on recycled paper



# ROTUNDA

For Family/Dual and Higher Members of the American Museum of Natural History

Vol. 26, No. 9 October 1996

## 20th Anniversary

### Margaret Mead Film and Video Festival

Friday, November 8  
to Thursday, November 14

#### Special Features

##### Peter Adair Retrospective

Peter Adair (1943-96) first began filming in the late 1960s, documenting southern folk culture in the United States. He became best known for his contribution to films about gay culture, bringing a human face to the AIDS crisis.

##### Paul Fejos Focus

A scientist by profession, the Hungarian-born Paul Fejos (1897-1963) produced films of all genres, from features to documentaries. The festival will present four of his works, including a tale of man against nature filmed in Thailand and a dramatic love story shot in an exotic setting closer to home — Coney Island, New York.

##### Pacific Island Cultures

Margaret Mead conducted much of her anthropological research among the cultures of the Pacific. On the occasion of its twentieth anniversary, the festival will present a special section of recent media productions about this region.

##### Fake Documentary

This year the festival will stand on the margins of the documentary genre to consider some of the classic as well as some of the new cross-cultural fake documentaries, or "mocumentaries."

#### Opening Night

Friday, November 8  
7:30 p.m.  
Main Auditorium

##### Goonna Goona (Love Powder) (Bali)

A classic tale, shot on location in 1932, of love, passion, and death. This melodrama, which captures the exotic representation of the "island paradise" as intended for Western audiences, is enhanced with a stellar sound track including the Royal Balinese Gamelan Gong Orchestra.

One of the dancers/performers in the film is featured in the Margaret Mead and Gregory Bateson *Trance and Dance in Bali* films. Extracts from the Mead/Bateson materials never before screened in public will be presented following the feature film. Patrick Loughney, Film Curator at the Library of Congress, will introduce and discuss the films.

(Festival listings continue on pages 5, 6, and 7.)

Friday: 7:30p.m.-10:00 p.m.  
Saturday: 12:00 p.m.-8:30 p.m.  
Sunday: 12:00 p.m.-5:30 p.m.  
Monday thru Thursday:  
6:30 pm-10:30 p.m.



Library of Congress



Library of Congress

Two scenes from the 1932 film *Goonna Goona*, by Andre Roosevelt and Armand Denis

### Family Halloween Party

Oct. 31; 4:00 p.m.-8:00 p.m.

Join us for a Family Halloween at the "American Museum of Natural History Mystery," a night of trick-or-treating, story-telling, mask-making, face-painting, and other special Halloween activities. There is a \$4 fee, including Museum admission. Advance tickets may be purchased by calling (212) 769-5200. The Diner Saurus will be open until 7:30 p.m. Come in costume!



© Rhonda Roland Shearer

### Full House

Evolutionary biologist Stephen Jay Gould will make a special appearance at the Museum to talk about his new book, which has already been called a "paradigm-shattering look at evolution." Story on page 2.

Call Monday  
Oct 14th 11am  
Say  
Thurs Oct 15



## Second Notice

The following programs were announced in last month's *Rotunda*. Unless otherwise specified, a limited number of tickets are still available. For detailed information on these listings, see the September issue of *Rotunda*. These programs are open only to Family/Dual or Higher Members unless a non-Members' price is specified.

### Spanish Dance Society

An internationally acclaimed ensemble performs bolero and flamenco dances. Thursday, October 10, 8:00 p.m. \$11 for Members; \$16 for non-Members. Code: MM2-10

### The Telltale Tour: A Night of Edgar Allan Poe

Museum hall tour with guide Robert Campanile. Friday, October 18, 6:00 p.m. Free; registration — by mail only — required. Code: MM1-10

### Hudson Valley Cruise

Boat cruise and survey of the autumn foliage through the Hudson River Valley. Guide, Sidney Horenstein. Sunday, October 20, noon to 4:00 p.m. \$50 for Members; \$60 for non-Members. Code: MM5-10

### Lecture on John Burroughs

Slide-lecture focusing on the influence of the famous American naturalist. Tuesday, October 22, 7:00 p.m., Linder Theater. \$6 for Members; \$9 for non-Members. Code: MM3-10

### Ghost Stories for Families and Adults

A two-session program of storytelling with Laura Simms; Friday, October 25. Family session for children ages 5 to 12, 6:00 p.m. \$6 for Members; \$9 for non-Members. Code: MM6-10. Adult session, 8:00 p.m. \$8 for Members; \$12 for non-Members. Code: MM7-10

### Day Trip to Slabsides

Bus trip, with a talk and tour, to the Hudson River home of John Burroughs in upstate New York. Saturday, October 26, 9:00 a.m. to 5:00 p.m. \$50 for Members; \$60 for non-Members. Code: MM4-10

### Magic Through the Ages

Lecture on the derivations of New Age beliefs and customs. Speaker, Anthony Aveni. Wednesday, October 30, 7:00 p.m. \$5 for Members; \$8 for non-Members. Code: MM8-10.

### Members' Lecture Program

## Women of India: From the Oppressed to the Empowered

Friday, November 1  
6:30-8:00 p.m.  
Linder Theater  
Admission free



Participants in a ceremony enacted for pregnant women

In this lecture program, Chantal Boulanger, a social anthropologist who specializes in Dravidian India, will discuss the social and political position of women in India today by examining the lives of several individuals very different in their social status, ranging from the oppressed to the empowered.

The destinies of Indian women can be extremely diverse. Some have freedom and power, enjoying the respect of their menfolk and their status in society, while others only survive.

What Indian women have in common, however, is an awakening sense of their potential political influence. Men have traditionally been partisan voters in India, casting their ballots along strict party lines, but women's votes often go to the candidates who best address the issues that concern them, like

education and poverty. Politicians have understood the message and now include these and other issues — such as laws guaranteeing a quota of elected women officials — in their campaigns for public office.

Recent political gains have encouraged the development of an Indian-style feminism independent of the Western model, with an emphasis on gaining self-respect and the respect of men within traditional family structures. The movement also fights for legal protections for women.

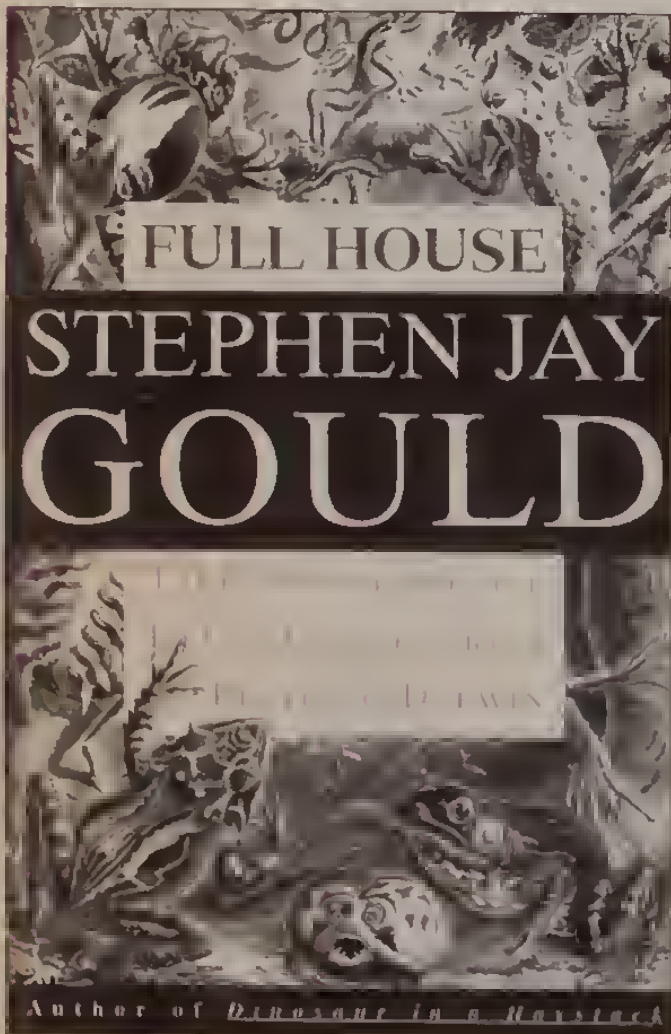
Chantal Boulanger, who completed social science studies in Paris, has been examining Indian cultures since 1981. For her research on Indian drapes, the subject of her slide-lecture at the Museum in 1992, she traveled all over the country meeting hundreds of women of all castes and social status.

Make your reservations by phone (769-5200) with your Visa, Master Card, or American Express credit cards, or use the Central Reservations Coupon on page 9. Be sure to include the program code number in your call or coupon reservation.

### Special Members' Program

## Full House: An Evening with Stephen Jay Gould

Tuesday, October 15  
7:00 p.m.  
Main Auditorium  
\$7 for Members  
\$10 for non-Members  
Program Code: MM9-10



Evolutionary biologist Stephen Jay Gould will make a special appearance at the Museum to talk to Members about his new book, *Full House: The Spread of Excellence from Plato to Darwin* (Harmony, September 1996), which has already been called "a paradigm-shattering look at evolution."

In addition to his positions as research associate and honorary curator in the American Museum of Natural History's Department of Invertebrates, Gould teaches geology, biology, and the history of science at Harvard University. He is also curator of invertebrate paleontology at Harvard's Museum of Comparative Zoology. A regular columnist for *Natural History* magazine, Gould is the author of numerous best-selling books. *Full House* can be purchased on the evening of the talk, and Gould will be available to sign copies afterward.

Call Central Reservations about ticket availability or to purchase tickets by credit card. You can also register by using the coupon on page 9, under the Membership Programs heading.

## ROTUNDA

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Members' Guided Tour

The Late Show

Friday, November 15  
6:30 p.m.  
Free, and open only to Family/Dual and  
Higher Members  
Program Code: MM4-11

Life is both miraculous and bewildering, full of mystery and secrets that science continually seeks to unravel. However, life is brief — everything dies. Death, ironically, is essential if life is to continue. Most humans find this fact of life hard to accept and have looked for spiritual comfort in religion, with its concepts of the soul and the quest for eternal life, as well as in spirits and the spirit world.

Using the halls of the Museum and the sciences of biology, cosmology, and anthropology — spiced with a little bit of philosophy — Robert Campanile will take participants on a tour that delicately confronts our fear of death and our hope for resurrection and immortality.

Please Note: because of limited space tickets are available **by mail only** for this tour, on a first-come-first-served basis. Use the Central Reservations Coupon on page 9 to register, under the Membership Programs heading.



Adah Isaacs Menken, circa 1866, dressed for her role in *Mazeppa*.

Members' Lecture Program

Adah Isaacs Menken — America's First Superstar

Thursday, November 7  
7:00-8:30 p.m.  
\$6 for Members; \$9 for non-Members  
Kaufmann Theater  
Program Code: MM2-11

Adah Isaacs Menken (1835-68) was a beautiful, innovative American performer and poet, much celebrated in her time. Barbara and Michael Foster, a husband-and-wife writing team, will present a slide lecture on Menken, a dazzling star whose iconoclastic style anticipated Harlow and Monroe.

The Fosters are writing a biography of the actress and early musical comedy star whom Twain, Swinburne, and Whitman admired. Menken was America's first authentic superstar and a pioneer in media hype. A singer and dancer with

an unusually fine physique, Menken's famous act involved being strapped to a horse and riding it up a stage "mountain" four stories high wearing only a body stocking, which earned her the epithet "naked lady." She broke records in Paris with her fabulous show *Mazeppa*, which ran one hundred nights. Her career fortunately coincided with that of one of the first theater photographers, Napoleon Sarony, who took hundreds of glass-plate negatives of Menken.

The lecture will detail the life of a woman who was part Irish and French, avowedly Jewish

by religion, and also part black. The Fosters' research shows that Menken, born in New Orleans, died at the age of thirty-three in Paris with a rabbi at her bedside to administer the final prayers.

Barbara Foster, a writer and associate professor in Hunter College's library department, and Michael Foster, a novelist and historian, also co-authored the book *Forbidden Journey: The Life of Alexandra David-Neel* (Harper Collins, 1989). They have located over one hundred photos of Menken to help bring to life her extraordinary personality and career.

From the Volunteer Office

Halloween: The Tour

Come celebrate the most ancient of all holidays at the "American Museum of Unnatural History." The ages-old history of Halloween has its roots in natural history, and participants on this tour will seek out the very symbols attached to this eerie holiday.

So bring your brave soul and "Icharob" Campanile will provide the ghosts. If you do, then you are in for a treat or a fright as Campanile leads participants through the largest haunted house in the city,

closely pursued by its many spirits. Warning — do not take this tour alone!

Tour Sessions

Friday, October 25, and Saturday, October 26, at 6:45 p.m. Telephone reservations are required for these two popular sessions. Call (212) 769-5566. A third session is scheduled for Thursday, October 31, at 3:45 p.m. All three sessions are free.

Leonardo's Codex Leicester

A Masterpiece of Science

On view October 26 through January 1, this special exhibition of the only manuscript in the United States by Leonardo da Vinci (1452-1519) offers in-depth contact with Leonardo's scientific thinking. The Codex Leicester (c. 1506-10) opens a window onto the awe-inspiring mind of the Renaissance artist, engineer, and thinker, while illuminating both the scientific process itself and the creativity of that process.

In order to conserve this precious manuscript, its pages are displayed in special cases, in a climate-controlled atmosphere. While the Codex is the heart of the exhibition, the installation also includes interactive computer stations offering translations and scientific interpretations of the notebook; fossils, scientific instruments, and other materials selected from the Museum's collections; a video focusing on the life and science of Leonardo and the history and importance of the Codex Leicester; a special study and resource area where visitors can explore the Codex in greater depth; and a demonstration room where there will be live demonstrations of some of Leonardo's experiments.

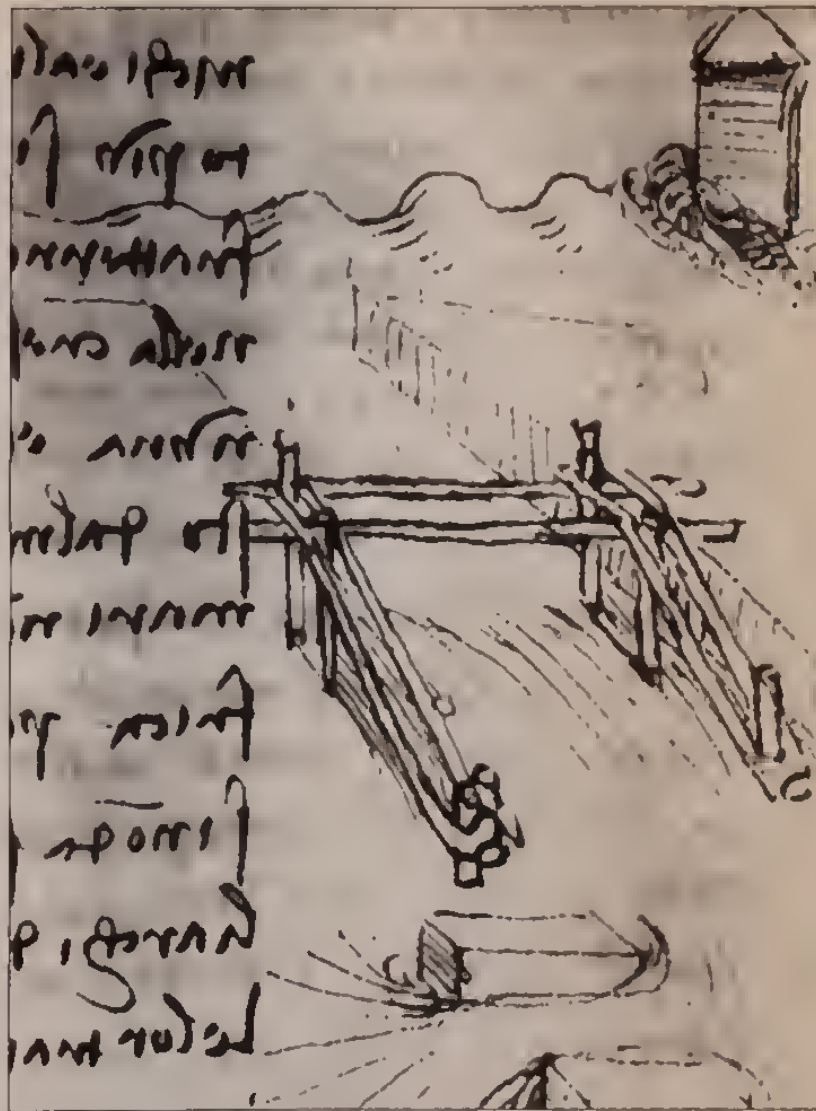


Detail showing notes and diagrams of observations on siphans and centers in the sphere of water

Members' Private Viewing

Tuesday, Nov. 12  
Wednesday, Nov. 13  
6:00-8:30 p.m.  
Code: MM3-11

Family/Dual and Higher Members can see the exhibition at a private viewing, which will be ticketed to accommodate Members in small groups. To reserve a place, call Central Reservations and leave your name, the Program Code, and your date of choice.



Detail showing notes and diagrams of observations on the movement of water through narrow passages and under bridges

Principal sponsorship of this exhibition is provided by Merrill Lynch. Additional support is provided by Compaq Computer Corporation. Interpretive software and in-kind support have been provided by Corbis Corporation.



# Education Department Programs

## Special Features

### Lakota Sioux Indian Dance Theatre

Wednesday, October 23  
7:00 p.m.  
Main Auditorium  
\$10; \$9 for Members

**Code: ED96105M**

The American Museum of Natural History and Solaris present the Lakota Sioux Indian Dance Theatre in *Cokata Upo!* (Come to the Center!), a cultural celebration of the Lakota people of the Plains. The program includes the Grass, Jingle Dress, Fancy, Traditional, Horse, Buffalo, Eagle, Round, and Inter-tribal dances and dance interpretations of the Lakota warrior tradition.

A backdrop of spectacular video imagery and traditional, sacred, and courting songs complement the performance. Narratives and creation stories introduce each segment. It is through the telling of stories in song and dance that the Lakota wisdom is passed on and rekindled for the coming generations.

Solaris/The Lakota Sioux Indian Dance Theatre began in 1978 on the Rosebud Reservation in South Dakota with the support of traditional Lakota Indian educators, healers, community leaders, championship powwow dancers, singers, and storytellers. For more information on this program, call 769-5315.

### Beginnings: Earth, Moon, Air, and Life

Three Thursdays, starting Oct. 24, and Friday, Nov. 15  
7:00-8:30 p.m.  
\$25; \$22.50 for Members

**Code: ED96203L**

The Museum's Earth and Planetary Sciences Department will sponsor this lecture series featuring noted scientists in discussions of the origins of our own planet and of its geological and physical elements.

Oct. 24 — "The Origin of the Earth." Speaker, David J. Stevenson.

Oct. 31 — "The Origin of the Moon." Speaker, Michael J. Drake.

Nov. 7 — "The Origin of the Atmosphere." Speaker, Joel S. Levine.

Nov. 15 — "Early Life in the Geologic Record." Speaker, J. William Schopf.

### Eyewitness to Discovery: The World's Great Archeological Finds

Thursday, Dec. 5  
7:00-8:30 p.m.  
\$10; \$9 for Members  
**Code: ED96208L**

In this lecture Brian M. Fagan, professor of archeology at the University of California, Santa Barbara, and the author of *The Rape of the Nile* and *Time Detectives*, will discuss his newest book, *Eyewitness to Discovery*. Fagan will also address developments in the field of archeology, beginning with its origins in the early 1700s up to the latest twentieth-century discoveries that come, not from spectacular excavations, but from computer programs or the analysis of pollen grains invisible to the naked eye.

### Geology of the Planets

Three Tuesdays and three Thursdays  
Starting January 14, 1997  
7:00-8:30 p.m.  
\$35; \$31.50 for Members  
**Code: ED97202L**

A new chapter in the science of planetology began on August 27, 1962, when the *Mariner II* space probe was launched to explore Venus. An enormous amount of information has been amassed since then, greatly expanding our knowledge of the solar system. Geologist Sidney Horenstein, coordinator of the Museum's Environmental Public Programs, will present a six-part minicourse that uses slides and videos to take participants on a tour of the planets and their salient features.

The lectures will begin with the earth and moon, illustrating some of the basic geological concepts and setting the stage for the exploration of the rest of the solar system. Horenstein will explain why the moon has no atmosphere or folded mountains and why Mars instead has huge shield

volcanoes and an immense canyon. He'll take a look at Venus and its atmosphere (which creates a greenhouse effect), the cratered surface of Mercury, and the amazing differences among the moons of Jupiter, including the origin of Io's sulfur lava flows.

### Free Lectures and Programs

#### From Lucy to Language

Wednesday, November 6  
7:00-8:30 p.m.

Donald Johanson, one of the world's foremost paleontologists, explains the tantalizing clues left behind by recent fossil finds that continue to clarify how we became human. Johanson uses photographs from his recent book, *From Lucy to Language: The Record of Human Evolution* (taken by David Brill, chief staff photographer for *National Geographic*) to support his often contentious theories about race, sexual selection, behavior, and human diversity.

#### Kwanzaa Celebration

Friday, December 27  
12:00-6:00 p.m.

Kwanzaa, "the first fruits of the harvest," is a holiday that celebrates the richness and diversity of African and African-derived cultures. The Museum's Kwanzaa festivities will include performances reenacting the African diaspora and the re-creation of an African marketplace in the Museum's Halls of Ocean Life and Invertebrates.

#### Second Notice

More detailed descriptions of the following programs can be found in the September issue of *Rotunda*.

#### Geomorphology — The Shape of the Earth

Four-part slide-illustrated lecture series with Sidney Horenstein. Two Tuesdays and two Thursdays, starting Oct. 1, 7:00 p.m. \$25; \$22.50 for Members.  
**Code: ED96200L**

### Dos Alas/Two Wings

Afro-Cuban and Afro-Puerto Rican Music and Dance Performance. Tuesday, Oct. 8, 8:00 p.m. \$5; \$4.50 for Members.

**Code: ED96104M**

### Mushrooms and Conifers, Mosses and Ferns

Slide-illustrated lecture series with William Schiller. Five Mondays starting Oct. 7, 2:30 p.m. **Code: ED96206L**  
Or five Thursdays starting Oct. 10, 7:00 p.m.

**Code: ED96207L**  
\$30; \$27 for Members.

### Alaska!

Five-part combined lecture series and Museum hall tours, with Kenneth A. Chambers. Starting Oct. 17, 7:00 p.m. \$30; \$27 for Members.

**Code: ED96202L**

### Native Ways of Psychophysical Health

Lecture with Peter Gold. Two Mondays, Oct. 21 and 28, 7:00 p.m. \$15; \$13.50 for Members.

**Code: ED96205L**

### The Language of Birds

Illustrated talk with Jeffery Boswall. Wednesday, Oct. 23, 7:00 p.m. \$10; \$9 for Members.

**Code: ED96204L**

### Children's Workshops

#### A Whale's Tale

A program on ocean mammals, with Dayna Reist. Sunday, November 10, 10:30-11:30 a.m. For children age 4, with one adult; \$20.

**Code: ED96403C**

Please note that Members' prices also apply to students and senior citizens. If you have any questions about these programs, call (212) 769-5310. To register and purchase tickets, use the Central Reservations Coupon on page 9, under the Education Department heading, or call Central Reservations with your credit card number. Be sure to include the program code in your coupon or credit card reservation.

### All About Fish

Presented by Judith Levy. Sunday, Nov. 17, 10:30 a.m.-1:30 p.m. For children age 5, with one adult; \$20.  
**Code: ED96404C**

### How We Hear and How We See

A program about the senses, presented by Dina Schlesinger. Sunday, Nov. 24, 10:30 a.m.-1:30 p.m. For children age 7-8; \$25.  
**Code: ED96405C**

### Drawing Fossils

A program of drawing from vertebrate fossils, presented by Angela Tripi-Weiss. Sunday, Nov. 17, 10:30 a.m.-1:30 p.m. Appropriate for age 8; \$25.  
**Code: ED96406C**

### Three Centuries of Thanksgiving

A guided hall tour, presented by R. Campanile and L. Weinstein. Saturday, Nov. 9, 10:30 a.m.-1:30 p.m. For children age 8-9; \$25.  
**Code: ED96407C**

### Puppets

Masks and puppets program presented by Deborah Van Wetering. Sunday, Nov. 3, 10:30 a.m.-1:30 p.m. For children age 9-10; \$25.  
**Code: ED96412C**



## Members' Walking Tour

### Inwood Hill Park

Saturday, Nov. 23  
Three sessions  
10:00 a.m., or  
12:00, or 2:00 p.m.  
\$18 for Members;  
\$22 for non-Members  
Ages 13 and higher  
**Code: MM6-11**

Explore the last remaining woodlands on Manhattan Island on a walking tour of Inwood Hill Park. Sidney Horenstein, coordinator of the Museum's Environmental Public Programs, will lead these tours of the park, which is situated at one of the best vantage points in the New York City area for an overview of local geology.

Participants will see Indian shell middens, the park's cele-

brated Indian caves, and other remnants of the island's long-distant past. Horenstein will point out the area called Marble Hill, where the northern tip of Manhattan was severed and eventually became attached to the Bronx. He'll also reveal how Spuyten Dyvil, the confluence of the Hudson and Harlem rivers, got its name, and other points of historical, geological, and geographical interest.

## At the Museum Shops

The Museum Shops are proud to announce the opening of the new gem and mineral boutique in the Main Shop. This newly renovated area is devoted to providing a beautiful assortment of scientific specimens, jewelry, and art objects made with minerals, semiprecious stones, and amber. Many items featured in this area will be one-of-a-kind craft items produced by artists from all over the country. The new gem and mineral area is scheduled to open in October, and we hope you will come discover this exciting new source for unusual gift items.

The Shop on Three, adjacent to the Special Exhibitions Gallery on the Museum's third floor, will reopen in October, featuring merchandise related to the exhibition of Leonardo da Vinci's *Codex Leicester*, on view in Gallery 3. Items available will include a catalog to the exhibition and a wide assortment of books about Leonardo and his times, as well as a beautiful selection of gemstone and amber jewelry inspired by the Italian Renaissance.



# 20th-Anniversary Margaret Mead Film and Video Festival



Death in El Valle: November 12, Linder Theater, 7:05 p.m.

## Partial Festival Schedule

### Saturday November 9

#### Kaufmann Theater

12:00 noon  
**La Pirogue de ma  
Memoire (Senegal)**

A poetic commentary on the passing of a way of life in Dakar. Set on Soumbédioune Beach, this film explores the daily activities of merchants and fishermen to reveal that the community works only to satisfy the consumer appetites of the Western world.

1:00 p.m.  
**Yakwa: The Banquet of  
the Spirits (Amazon)**

The Yakwa is the most important ritual of the

Eñawene-Nawe Indians of Mato Grosso State, Brazil. With elaborate ceremonial costumes, rhythmic chanting, and offerings of food the Eñawene enact a seven-month ritual to maintain the harmony of their world.

2:40 p.m.  
**Fake Documentary: Parody  
Baba Kiueria (Australia)**

This "mocumentary" highlights the absurdity and trauma of racism. Presented as part of the Australian Bicentenary Celebrations (1987) by the Baba Kiueria Film Commission, the film explores the Aborigines' "discovery" of Australia, its white inhabitants, and the simplistic judgments that are made about the middle-class white Australians and their culture.

3:25 p.m.  
**Fake Documentary: Parody  
Born in a Wrong Body  
(Holland)**

Offensive? Perhaps — but a provocative, irreverent look at sexuality, identity, race, and the Dutch welfare system at the end of the twentieth century. A Dutch farmer recognizes that he is an African trapped in a European body, and his sympathetic doctor helps him to finally realize his true identity.

5:00 p.m.  
**Pacific Island Cultures  
My Crazy Life!  
(Samoa/U.S.)**

Young Samoan gang members living in Los Angeles reveal some of the realities of the Pacific Island diaspora. While being Samoan remains

an important part of their identity, their experience of urban American life is far removed both from their grandparents' lives in the Samoan islands and from the dominant myth of the Samoan paradise. (Repeat: Monday, Nov. 11, 8:30 p.m., Kaufmann.)

6:45 p.m.  
**Pacific Island Cultures  
Then There Were None  
(Hawaii)**

Through both the filmmaker's memories of her family's own struggles and archival material, this film poignantly traces the colonization of the islands, the American military overthrow of the nation in 1893, and the impact of disease, land loss, and disenfranchisement. Central to this story is the development of the Hawaiian sovereignty movement and the successes of the Hawaiian people in overcoming this history. (Repeat: Monday, Nov. 11, 7:45 p.m., Kaufmann)

#### Linder Theater

12:00 noon  
**Hopes Soaring High  
(India)**

Bravely defying their subservient role in society, the women of Bhangadh and Mingalpu villages in Gujarat, India, actively changed their economic and social opportunities by creating their own savings and loan program.

1:20 p.m.  
**Evelyn Williams  
(United States)**

Evelyn Williams is a woman whose awareness of class and race oppression has led to a lifetime of activism. Now in her eighties, she is battling to save her land in eastern Kentucky from destruction by a large oil company.

2:00 p.m.  
**Amrit Beeja: The Eternal  
Seed (India)**

This film uses traditional texts and documentary footage to explore the origin and place of the seed in Indian cosmology.

3:00 p.m.  
**Stretchmark  
(United States)**

A short, lyrical film exploring the love and sacrifice of a woman raising a son by herself.

3:20 p.m.  
**Camp Arirang (Korea)**

This video explores the lives of Korean sex workers and their fatherless Amerasian children living in U.S. camps throughout South Korea.

4:20 p.m.  
**Margaret Mead: An Observer Observed  
(United States)**

A fascinating portrait of one of the most influential women of our time.

(Repeat: Wed., Nov. 13, 9:10 p.m., Kaufmann, including a discussion with the director.)

6:00 p.m.  
**Appropriating Native  
Religion  
White Shamans and  
Plastic Medicine Men  
(United States)**

In recent years, Native American spiritual traditions have been commercialized and popularized. Those who are vested with safeguarding sacred ways speak out.

6:50 p.m.  
**Appropriating Native  
Religion  
If Only I Were an Indian  
(Canada/Czech Republic)**  
A Cree and Ojibwe couple from Canada travel to the Czech Republic to learn how a community there has adapted their traditions.

### Sunday November 10

#### Kaufmann Theater

12:00 noon  
**Manipulating Media  
Moses of Oxford  
(U.K./U.S.)**

An American-born rabbi based at Great Britain's Oxford University applies innovative techniques to reach out to new audiences. (Repeat: Tuesday, Nov. 12, 7:50 p.m., Kaufmann)

1:30 p.m.  
**Manipulating Media  
Amazon Journal  
(Brazilian Amazon)**

The director's first-person account of his experiences filming the turbulent political events in the Brazilian Amazon.

3:45 p.m.  
**Paul Fejos Focus  
The Yagua (Peru)**

In 1940, Paul Fejos spent a season with the Yagua tribe of the Peruvian Amazon. This film is the result of his collaboration with the tribe's shaman. The film focuses on the forces of nature that threaten the rhythm of daily life in this small village.

5:00 p.m.  
**Paul Fejos Focus  
Dance Contest in Esira  
(Madagascar)**

A brief look at a dance contest and dance performances by men and women in the Indian Ocean island-nation of Madagascar.





Shinjuku Boys; November 11, Main Auditorium, 7:50 p.m.

## Linder Theater

Music:  
*Cultural Synthesis/  
Cultural Resistance*

(The following four films will be shown as part of the above Festival section.)

12:00 noon  
**Africa I Remember: A Musical Synthesis of Two Cultures (Mali/U.K.)**

Tunde Jegede, a musician and composer, bridges the musical traditions of West Africa and Europe.

12:40 p.m.  
**Abraham et les Petits Métiers (Senegal)**

Abraham Ba is a Renaissance man. Though he makes his living by doing odd jobs, he sings opera, has studied music for twelve years, and shares his passion for music throughout the streets of Dakar. (Repeat: Sunday, Nov. 10, 5:00 p.m., Linder)

1:30 p.m.  
**Sworn to the Drum: A Tribute to Francisco Aguabella (United States)**

A lively film celebrating the Afro-Cuban rhythms of Francisco Aguabella, a master performer who blends religious and cultural elements in his music. (Repeat: Sunday, Nov. 10, 4:15 p.m., Linder)

2:15 p.m.  
**Sivas — Home of Poets (Turkey)**

The Alevis are Shiite Muslims living among the lower economic strata of Turkey and oppressed because they practice a form of Islam perceived as too liberal and unorthodox by the Sunni majority. The challenges and struggles among this population are expressed through their ashiks, whose music and poetry contain messages of resistance to the oppressors. The tension between the Alevis' political protests and the growing fundamentalism within Turkey results in tragedy in this stunning film.

## Monday November 11

### Main Auditorium

6:30 p.m.  
**Paul Fejos Focus Jungle of Chang (Thailand)**

This Flaherty-like drama pits man against nature in a visually stunning story filmed with nonprofessional actors on location in northern Thailand. It includes in its cast nearly 200 elephants.

7:50 p.m.  
**Shinjuku Boys (Japan)**

This film offers a fascinating and seductive view of the lives of three *annabe* (women who choose to live as men) in Japan. The women candidly disclose aspects of their sexuality and gender identity. Psychological and emotional aspects of their personal lives are seen through relationships with family and lovers, aspects

often at odds with their professional demands at work. (Repeat: Wednesday, Nov. 13, 9:15 p.m., Orientation Center, fourth floor)

9:10 p.m.  
**Me & My Matchmaker (United States)**

It's about love; it's about mating; it's about kosher chicken. A photojournalist turned videomaker tries to understand the nature of matchmaking in Jewish-American culture by following one of the country's finest, Irene Nathan, a traditional *schakham*. In the process, the filmmaker gets closer to the matchmaker and his subjects than he ever expected, blurring the line between documentary and his own life. (Repeat: Wednesday, Nov. 13, 8:05 p.m., Miriam and Ira D. Wallach Orientation Center — fourth floor.)

### Kaufmann Theater

6:30 p.m.  
**Pacific Island Cultures Colonists for a Day (Papua New Guinea)**

The Australian administration of Papua New Guinea (1906-1975) constituted Australia's first and only attempt at colonization. This film incorporates extensive archival documents of this period and interviews with both colonizers and colonized.

### Linder Theater

*Fake Documentary:  
Biography/Autobiography*

(The following four films will be shown as part of the above Festival section.)

6:30 p.m.  
**Some of These Stories Are True (United States)**

Five individuals share their life story; as the title states, some are real, some not. Can you tell the difference? Does it matter? This video questions the nature of truth and fiction in documentary filmmaking.

7:15 p.m.  
**My Life as a Poster (U.S./India)**

Using images of film stars from popular films, this video explores stereotypical notions about Indian culture, the marginalizing aspects of identity politics, and the "First World's" expectations from a "Third World" filmmaker.

8:00 p.m.  
**Bontoc Eulogy (U.S./Philippines)**

A tale of trauma about the filmmaker's Filipino grandfather, one of the eleven hundred tribal natives displayed as anthropological "specimens" at the 1904 World's Fair.

9:30 p.m.  
**David Holtzman's Diary (United States)**

Mock *cinéma vérité* that documents a few days in the life of an earnest young filmmaker who decides to film his life to understand it, and unfortunately only succeeds in ruining it.

## Tuesday November 12

### Main Auditorium

6:30 p.m.  
**In Harm's Way (United States)**

A random violent event changes the filmmaker's life and challenges forever after what she now considers to be a false sense of security.

7:15 p.m.  
**Healthy Baby Girl (United States)**

This film uses the intimacy of a video diary to explore the personal and political dimensions of cancer caused by the use of DES to prevent miscarriages and pregnancies. Reproductive technology, toxic exposure, and corporate accountability are all called into question.

8:45 p.m.  
**Carpati: 50 Miles/50 Years (Ukraine)**

A moving portrait of a remnant Jewish community in the Carpathian region of Eastern Europe.

### Kaufmann Theater

6:30 p.m.  
**Peter Adair Retrospective Holy Ghost People (United States)**

Festival namesake Margaret Mead called this "one of the best ethnographic films ever made." A sympathetic and sensitive portrayal of a West Virginia fundamentalist snake-handling sect.

8:00 p.m.  
**Peter Adair Retrospective Absolutely Positive (United States)**

As director and subject, Peter Adair brings a human face to the lives of some of the Americans who are HIV positive.

### Linder Theater

6:30 p.m.  
**A Video Book (United States)**

A Native American filmmaker touches on the link between substance abuse and cultural oppression, on the personal as political, and on one woman's empowerment. (Repeat: Thursday, Nov. 14, 8:20 p.m., Linder)

6:45 p.m.  
**I Want to Know Why (Canada)**

Through jump cuts and hyperactive sound track, the videomaker (of Lakota/Sioux descent) boldly questions the women in her family who have succumbed prematurely to the external forces of racism and poverty. (Repeat: Thursday, Nov. 14, 8:40 p.m., Linder.)

7:05 p.m.  
**Death in El Valle (U.S./Spain)**

The death of the filmmaker's grandfather at the hands of General Franco's infamous



Baba Kiueria; November 9, Kaufmann Theater, 2:40 p.m.





Evelyn Williams; Nov. 9, Linder Theater, 1:20 p.m.

Nyoka Hawkins, KUCP

Civil Guards remains the one taboo subject within her family. In seeking to uncover the truth, the filmmaker confronts the power of the past and experiences firsthand her family's determination to bury their own traumatic history.

#### 8:55 p.m. Halving the Bones (U.S./Hawaii/Japan)

This film tells the story of a Japanese-American woman who has inherited the bones of her Japanese grandmother. As she searches for a place to lay the bones to rest, she uncovers a host of other skeletons in the family closet.

## Wednesday November 13

### Main Auditorium ...

6:30 p.m.  
Chastie (Kazakhstan)



Bontoc Eulogy; Nov. 11, Linder Theater, 8:00 p.m.

© 1995 NE Fuentes

The grass is always greener on the other side of the Kazakhstan steppe. Long takes of the little comedies of daily life provide another perspective on the exotic and sacred image of Kazakhstan nomads. (Repeat: Thursday, Nov. 14, 8:05 p.m., Main Auditorium)

#### 7:00 p.m. Coute que Coute (France)

The trials of a small start-up food company in France. The entrepreneur, a Tunisian immigrant, must learn to navigate the difficult terrain of free enterprise.

#### 9:00 p.m. Awara Soup (Le Bouillon d'Awara) (Guyana)

Awara soup is a stew that the Creole community of Guiana cooks on Easter Monday. The soup becomes a metaphor for "Creolite," the fusion of diverse peoples, languages, and cultures of the area, and for survival and resilience in the face of colonial conquest.

### Kaufmann Theater

6:30 p.m.  
Portraits  
Back From Madness  
(United States)

The mentally ill have been subject to tortuous medical treatment and relegated to an inhumane institutional existence in the recent past. A filmmaker/psychiatrist presents the compelling struggles of four people who intimately discuss their dreams, fears, and psychoses, revealing the

breakthroughs and failures in the current state of psychotherapy.

### Linder Theater

6:30 p.m.  
Sweet Sorghum  
(U.K./Ethiopia)

The daughter of noted anthropologists/filmmakers recounts her life growing up with the Hamar of Ethiopia.

7:15 p.m.  
Holding Ground: The Rebirth of Dudley Street  
(United States)

Ten years of community protest and activism and multicultural bridge-building are rewarded with urban renewal in this remarkable tale of a Boston neighborhood.

8:30 p.m.  
The Fire This Time  
(United States)

This film constructs a history of the ghetto in South Central Los Angeles and builds a case against those who wished it into existence.

### Miriam and Ira D. Wallach Orientation Center — Fourth Floor

6:30 p.m.  
The Underbelly of Culture:  
Politics and Sex, Sex, Sex  
Our Secret Century  
(United States)

This series of newly released CD-ROM interactive programs includes a searing look at media images from the 50s that created an idealized national identity. Included in this viewing are the titles "Busy Bodies," "Make Mine Freedom," and "Gender Role Call," which explore the changing history of public attitudes toward sexuality, patriotism, and liberty.

8:00 p.m.  
Condom Ads (Belarus)  
Take a look at how condoms are advertised on television in Belarus.

## Thursday November 14

### Main Auditorium

6:40 p.m.  
Paul Fejos Focus  
Lonesome (United States)

A rarely seen depiction of New York City circa 1928 in one of the first films representing the transition from the era of silents to talkies. Two young people encounter love and loss at Coney Island's Luna Park.

8:45 p.m.  
Borowitschi (Russia)  
A stunning "kino-eye" view of capitalism in a small Russian town located halfway between Moscow and St. Petersburg.

### Kaufmann Theater

6:30 p.m.  
Peter Adair Retrospective  
The AIDS Show: Artists  
Involved with Death  
and Survival

With pride and humor this video shows that while the AIDS epidemic is a tragedy, society can rebound, becoming more compassionate.

7:45 p.m.  
Peter Adair Retrospective  
Word Is Out

This was the first feature documentary that showed a positive, funny, and moving portrait of lesbians and gays in the United States.

### Linder Theater

6:30 p.m.  
Contrasting Initiations  
Vote for Me: The Political  
Education of Maggie  
Lauterer (United States)

Having no prior political experience, a North Carolina TV reporter runs for Congress. During her year-long campaign she is transformed from a clean campaigner into

one who learns all the tricks of the trade and is initiated into the harsh realities of campaigning in the 90s.

8:30 p.m.  
Contrasting Initiations  
Le Secret des Choses  
(The Secret of Things)  
(Cuba)

A young Cuban prepares his initiation into Santeria. The film is shown in Spanish with French subtitles.



Janet Cole

Absolutely Positive; Nov. 12, Kaufmann Theater, 8:00 p.m.

To order tickets, please review the options below, then use the Central Reservations coupon on page 9, under the heading *Education Department*, or call *Central Reservations* with your credit card number. Be sure to include your ticket choice Program Code number in your coupon or credit card reservation.

*Daily Ticket*  
\$7 AMNH Members, Students with I.D.  
\$8 Non-Members  
Program Code: ED96600F

*Full-Week Pass*  
\$40 AMNH Members, Students with I.D.  
\$44 Non-Members  
Program Code: ED96601F

*Friend of the Festival*  
\$125 — includes:  
One Festival pass, good for admission to all screenings  
One Festival T-Shirt  
An invitation for two to opening-night cocktails  
Reserved seating for the first screening of each day or evening (if contribution is received by October 29)  
Recognition in the 1997 festival guide  
Program Code: ED96603F

*Festival T-Shirt (with 4-mask logo)*  
\$11.50 AMNH Members  
\$13 Non-Members  
Program Code ED96602F

Daily Tickets, Full-Week Passes, and Friend of the Festival passes will also be available for purchase in advance and in person at the second-floor Rotunda/Central Park West entrance. They may be purchased during the week of the Festival at the 77th Street entrance as well.

To receive a complete program brochure with full listings, or information about the Festival High School Program or National Travelling Festival, call (212) 769-5305.

All seating, except for those holding Friend of Festival tickets, is on a first-come, first-served basis. Full-Week Passes and Daily Tickets do not guarantee a seat at the film of your choice.

Programs subject to change.

**The Margaret Mead Film and Video Festival receives generous support from the New York State Council on the Arts and from the Natural Heritage Trust.**



## Mighty Cahokia: Prehistoric Indian City

Wednesday, Nov. 20

7:00-8:30 p.m.

Kaufmann Theater

\$8 for Members; \$12 for non-Members

Program Code: MM5-11

In southern Illinois, eight miles across the Mississippi River east of St. Louis, Missouri, lie the archeological remnants of the most sophisticated prehistoric Indian civilization north of Mexico. Designated a World Heritage Site in 1982, Cahokia Mounds State Historic Site now draws nearly half a million visitors each year. In a slide-illustrated lecture, archeologist William R. Iseminger, who has worked at Cahokia since 1971, will explore its history and significance as well as its place within the context of the cultural traditions of the Midwest.

Cahokia's most visible remains are sixty-eight huge earthen mounds spread over the 2,200-acre tract of the site. In the early 1960s archeologists also found evidence of the existence of sun calendars in the form of circles of large red cedar posts. Because of their resemblance to the famous English megalithic monument of Stonehenge, the circular formations became known as Woodhenge.

The culture (called Mississippian by archeologists) that inhabited Cahokia beginning circa A.D. 700 developed a complex community life with a highly



Cahokia Mounds around A.D. 1200

Dennis Simco, courtesy National Geographic Society

specialized social, political, and religious organization. Artifacts found at the site also attest to a wide-ranging trading culture.

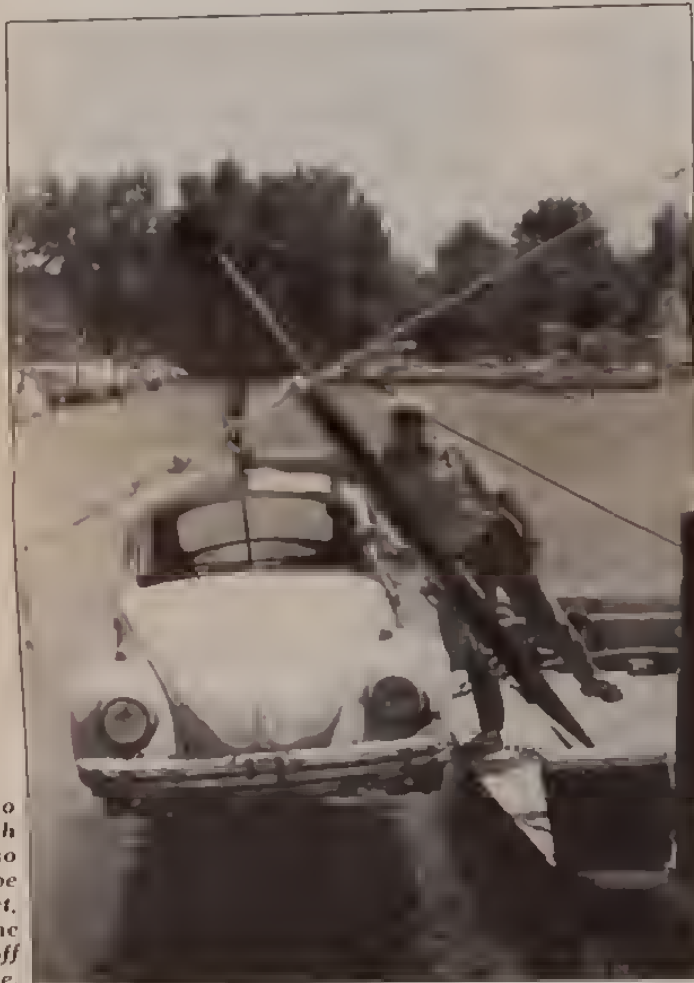
In his lecture, Iseminger will discuss specific aspects of Cahokia, including types of mounds, the socio-political-religious system, the trade network, and the Woodhenge calendar. Slides shown will include reproductions of

artists' renderings, artifacts, excavations, and dioramas.

Iseminger, whose primary interest is the Mississippian cultural tradition, has directed excavations and field schools at Cahokia. His work there since the late 1980s has been mainly directed toward interpretive and exhibit functions at the site's innovative Interpretive Center.

## Behind the Scenes

### The Zebra Mussel Project — or Bust



Terry Irvin, who equipped the VW with a shaft and hook so that it can be retrieved intact, preparing to tow the bug to its drop-off point in Lake Erie.

owner and operator of Port Clinton's Marine Towing, transport the bug to the predesignated area and lower it close to the shore of Gibraltar Island, the site of the University's marine laboratories.

Ervin, whose time and tireless efforts were entirely donated to the Museum project, had earlier drilled a shaft through the roof of the car to its floor and attached a hook that he will use later to pull it up. He and his crew, along with a small crowd of "old hands" who have fished and watched the waters of the lake for a lifetime, spent a long morning adjusting and readjusting the car and their equipment, making sure that everything would go as planned. Professional divers volunteered to accompany the car to the lake bed and have been diving to photograph its progress ever since.

But the cooperation most needed now must come from the zebra mussels themselves. Hageman is optimistic, pointing out that vast numbers of larval mussels are swimming in Lake Erie this season, "definitely in above average numbers." Reutter is not so sure. In fact, he's enlisted the help of yet another volunteer, Sea Grant District Specialist Fred Snyder, in arranging for a side-scan sonar unit to assist in locating a Ford Fiesta that sunk accidentally in the lake in March 1994. The owner, not uncharacteristically for this project, is willing to donate his vehicle — if it's needed.

Sharon Simpson

If it's not the Volkswagen, then it will be the Ford Fiesta. That's the latest news from Ohio, where scores of generous volunteers have been helping the Museum's exhibition department to bring to life a dramatic presentation for its *Endangered!* exhibition.

Scheduled for presentation in Gallery 3 in March 1997, it will focus on endangered species and habitats, including the impact on ecosystems of non-native species. Mammalogy department curator Ross MacPhee envisioned an exhibit piece that would vividly portray the impact of the invasion of the non-native zebra mussel into the Great Lakes region — something along the lines of a Volkswagen bug recovered from the bottom of Lake Erie with a thick layer of zebra mussels coating every crack and crevice. Thanks to the efforts of Museum volunteer Wally Elvers and the generous donation of a used, gutted Volkswagen by Marty Shenkman (see the July/August issue of *Rotunda*) the project got underway in June, when the car was shipped (at a much reduced rate) by the Ohio State Transit Company on a flat-bed truck to Port

Clinton, Ohio. Following behind the truck were four representatives from the Museum, who arrived in time to find the May flies out in droves — an encouraging environmental omen that delighted local residents, many of whom had for years accused their parents of telling tall tales about summer May fly invasions of the past.

Also on hand for their arrival were Jeffrey Reutter, director of the Ohio Sea Grant College Program at Ohio State University, and John Hageman, lab manager of the program's F.T. Stone Laboratory. Reutter and Hageman, instrumental to the project from its start, had secured the essential dumping permits (from three separate federal agencies — painstaking work that can usually only be accomplished over many months but in this case was done in a matter of days) and had worked hard to alert the media about the Museum's project and arrange a local press conference to accompany the submersion of the Volkswagen on June 26. Representatives from NBC and ABC network affiliates and from local and national print organizations were on hand to watch Terry Ervin,

## Members' Lecture Program

### History of New York City's Water Supply

Tuesday, November 26

7:00-8:30 p.m.

Kaufmann Theater

\$6 for Members; \$9 for non-Members

Program Code: MM7-11

The state of the water supply in New York City is a hotly contested issue. Sidney Horenstein, coordinator of the Museum's Environmental Public Programs, will talk about how the system arrived at its present condition.

This slide-lecture will explore the quest for water, starting with the area's earliest residents on the southern tip of Manhattan Island and culminating in the far-flung system that reaches 120 miles north of the city. The largest municipal water-supply system in the United States, New York City's system boasts many innovations and delivers the best water in the country. Horenstein will discuss how the delivery system was created and built, related political intrigues, and current health issues.

## Members' Children's Program

### Chemistry for Kids

Saturday, November 2, two sessions

11:00 a.m. and 2:00 p.m.

Kaufmann Theater

\$7 for Members; \$10 for non-Members

Program Code: MM1-11

Ages 5-12

At the eleventh annual presentation of *Chemistry for Kids*, which begins in the Kaufmann Theater, Patricia Ann Redden will demonstrate some fabulous chemical transformations. These experiments are designed to excite young people with the possibilities offered by the study of science. Each year Redden adds something new and different to her traditional program.

After the demonstration, participants will go on to the Edith C. Blum Lecture Room to conduct safe, easy-to-understand experiments of their own under adult supervision. Those who complete the lab session will earn

a Junior Chemist certificate jointly issued by the American Chemical Society's New York Section and the Museum. Participants can win prizes by completing a chemistry quiz based on Museum exhibits.

Redden is a professor of chemistry and departmental chairperson at Saint Peter's College in Jersey City. She is a very experienced teacher who frequently addresses high school and college science classes in the area.

*Chemistry for Kids* is presented in conjunction with the American Chemical Society's observation of National Chemistry Week.



A detailed black and white line drawing of a large, multi-story building, likely a university or institutional structure. The building features a central arched entrance, numerous windows, and two prominent towers on the ends. The drawing is done in a sketchy, artistic style with fine lines.

Through a gift to the American Museum of Natural History that provides lifetime income, you promote preservation and extend understanding of the natural world for generations to come and, at the same time, provide for your own retirement. If you are age 55 or older, with a gift of \$5,000 or more you can:

- For more information, please call toll-free 1 (800) 453-5734 or complete and return this confidential reply form to Jane C. Palmer, Director of Planned Giving, Office of Development, American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192.

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My (our) age(s): \_\_\_\_\_, \_\_\_\_\_.

My (our) age(s): \_\_\_\_\_, \_\_\_\_\_.

Your reply is confidential and implies no obligation. 10/96

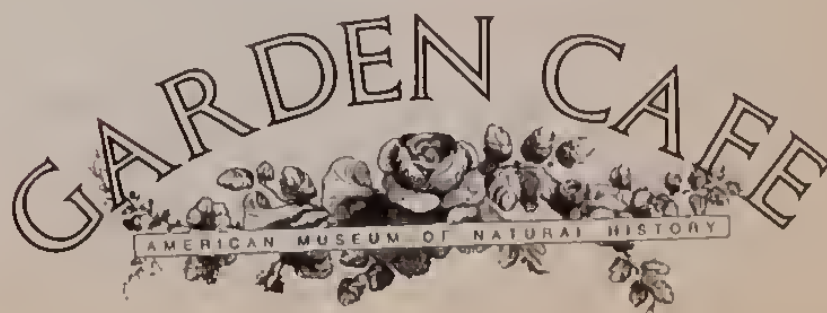
**The Garden Cafe will be open  
for the Member's Viewing  
of Leonardo's Codex  
on Tuesday, November 12th  
and Wednesday, November 13th**

Viewing hours from 6-8:30 pm

Dining hours from 5-8 pm

## Reservations suggested

Please call (212) 874-3131



**By Phone** Call (212) 769-5200 six days a week — Monday through Friday from 8:00 a.m. to 6:00 p.m. and Saturday from 10:00 a.m. to 6:00 p.m. Have your credit card and membership category ready when you call.



**By Mail** Send the registration form below to Central Reservations, American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192. Make checks payable to the American Museum of Natural History.

**Program Title****Code**

Dote/Time

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# Explore the World with the American Museum of Natural History

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## CRUISES

**A Journey on the Wild Side:  
Costa Rica and Panama**  
January 6 - 13, 1997  
From \$2,762 to \$4,812

**The Galapagos Islands**  
January 10 - 22, 1997 and  
January 24 - February 5, 1997  
\$5,487

**Island World of Indonesia**  
February 5 - 20, 1997  
From \$6,990 to \$10,950

**Baja and the Great Whales**  
February 9 - 17, 1997  
From \$2,652 to \$3,842

**Sailing the Caribbean  
aboard the Sea Cloud**  
February 16 - 22, 1997  
From \$4,220 to \$6,625

**Voyage to Vietnam**  
March 15 - 31, 1997  
From \$6,275 to \$10,095

**Lands of Pharaohs:  
Egypt, Israel, Jordan & the Red Sea**  
March 16 - 29, 1997  
\$4,595

**Untamed Wonders of the Amazon**  
April 11 - 21, 1997  
From \$3,775 to \$6,855

**Polynesia Under Sail**  
May 8 - 25, 1997  
From \$7,980 to \$11,980

**Expedition to the Australian Outback:  
The Kimberley**  
May 9 - 23, 1997  
From \$5,280 to \$6,780

**Crossroads of Civilization**  
May 20 - June 2, 1997  
From \$4,995 to \$6,495

**Barging in France**  
June 20 - 29, 1997  
From \$4,350 to \$5,089

**Norway by Coastal Steamer**  
June 24 - July 5, 1997  
From \$5,060 to \$5,525

**The Yenisey River:  
Through the Heart of Siberia**  
June 26 - July 10, 1997  
\$4,990

**Cruising the Dalmatian Coast**  
July 19 - 29, 1997  
Estimated from \$4,395 to \$5,995

**Alaska's Coastal Wilderness**  
July 27 - August 3, 1997  
From \$2,990 to \$4,290

**Undiscovered Greek Islands**  
September 1 - 13, 1997  
Estimated from \$4,395 to \$5,495

**Romantic Waterways:  
The Danube & Main Rivers**  
September 1997  
Estimated from \$3,970 to \$5,512

**Lost Islands of the Atlantic**  
October 9 - November 12, 1997  
Estimated from \$4,400 to \$7,200

**Egypt: Cruising the Nile**  
October 12 - 26, 1997  
Estimated from \$5,200

**Eastern Mediterranean**  
October 15 - 29, 1997  
Estimated from \$5,735

**The Asmat & Banda Islands**  
October 1997  
Estimated from \$6,290 to \$9,290

**Voyage to Arabia**  
December 1997  
Estimated from \$6,950

## TRAIN TRIPS

**The Silk Road:  
Through China and Central Asia**  
April 18 - May 9, 1997  
From \$8,990 to \$12,970

**National Parks of the West**  
May 25 - June 3, 1997  
From \$4,290 to \$7,250

**Beijing to Moscow by Private Train:  
China, Mongolia & Siberia**  
August 28 - September 12, 1997  
From \$7,450 to \$9,750

**Across Canada by Private Train**  
September 1 - 9, 1997  
Estimated from \$4,990 to \$7,890

## LAND PROGRAMS

**Elusive Everglades**  
January 4 - 11, 1997  
\$2,400

**Endangered Africa by Private Jet**  
January 10 - February 3, 1997  
\$25,950

**Ancient Mesoamerican Cultures**  
February 15 - March 1, 1997  
\$3,690

**Magdalen Islands Seal Watch**  
February 28 - March 5, 1997  
Estimated at \$2,595

**Mexico's Copper Canyon**  
March 1 - 9, 1997  
\$2,490

**Belize: Rainforests, Reefs & Maya Ruins**  
March 6 - 15, 1997  
\$3,410

**Trinidad and Tobago**  
March 16 - 25, 1997  
\$2,775

**In the Heart of the Amazon**  
March 17 - 25, 1997  
\$3,084

**Syria, Jordan & Israel**  
April 2 - 15, 1997  
\$3,795

**Big Bend National Park**  
April 12 - 19, 1997  
\$2,245

**China & the Yangtze**  
April 25 - May 12, 1997  
\$5,025

**Ancient & Modern Turkey**  
May 2 - 17, 1997  
\$3,990

**Southwest Weaving**  
May 19 - 25, 1997  
\$1,450

**John Muir's Alaska**  
June 21 - July 1, 1997  
Estimated at \$2,995

**Digging for Dinosaur Fossils**  
July 5 - July 12, 1997  
\$1,250

**Botswana & Namibia**  
August 29 - September 14, 1997  
Estimated at \$8,995

**Australia Air Safari**  
September 4 - 19, 1997  
Estimated from \$8,990 to \$9,990

**Vietnam & Cambodia**  
October 2 - 18, 1997  
Estimated at \$6,950

**Malaysia's Island of Borneo**  
October 9 - 24, 1997  
Estimated from \$4,336 to \$5,245

**Peru Expedition**  
October 11 - 25, 1997  
Estimated at \$4,990

**Ethiopia**  
October 18 - November 2, 1997  
Estimated at \$5,000

## FAMILY ADVENTURES

**The Galapagos Islands**  
July 1 - 11, 1997  
From \$3,080 to \$4,180

**Alaska Wilderness & Glacier Expedition**  
July 16 - 28, 1997  
From \$4,336 to \$5,245

**Holidays in Kenya**  
December 21, 1997 - January 3, 1998  
Estimated at \$5,690



## Discovery Tours

American Museum of Natural History  
Central Park West at 79th St., New York, NY 10024  
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Call for additional information about specific trips or to receive our comprehensive 1997 catalog of tours.



# List of Exhibits

Exhibit	Location	On View Until
<b>Witness: Endangered Species of North America</b>	Gallery 77, 1st floor	10/6/96
<b>Leonardo's Codex Leicester: A Masterpiece of Science</b>	Gallery 3, 3rd floor	1/1/97
<b>Okavango: Africa's Last Eden</b>	Akeley Gallery, 2nd floor	1/5/97
<b>Purposeful Traveler: Titian Ramsey Peale</b>	Library Gallery, 4th floor	2/1/97

## Life on Mars?

Currently on view in the second-floor Roosevelt Rotunda, the exhibition *Life on Mars?* features samples from the three groups of Martian meteorites, along with information on how they arrived on Earth. The exhibition provides a context for understanding the now-famous ALH 84001 meteorite, which may contain evidence of former life on Mars.

## World Wide Web Site

The Museum's web site, part of its ongoing effort to bring its vast resources to the widest possible public, contains a wide range of material, including detailed information on exhibitions, scientific research, and educational programming. It makes use of "Java" programming language, and users can interact with "virtual exhibits" complete with movement, sound, video, images, and text. Address: <http://www.amnh.org>

# Museum Notes

- Hours**  
Exhibition Halls  
Mon.-Thurs. & Sun. .... 10:00 a.m.-5:45 p.m.  
Fri. & Sat. .... 10:00 a.m.-8:45 p.m.  
The Museum Shop  
Mon.-Thurs. & Sun. .... 10:00 a.m.-5:45 p.m.  
Fri. & Sat. .... 10:00 a.m.-7:45 p.m.  
The Junior Shop  
Mon.-Fri. .... 10:00 a.m.-4:45 p.m.  
Sat. & Sun. .... 10:00 a.m.-5:45 p.m.  
The Museum Library  
Tues.-Fri. .... 11:00 a.m.-4:00 p.m.

**The Natural Science Center**  
There are many wild places in the New York City area, and the Natural Science Center features live plants and animals from these local habitats. Closed Mondays and holidays.  
Tues.-Fri.: 2:00-4:30.....Sat. & Sun.: 1:00-4:30

- Museum Dining**  
Diner Saurus Fast Service Eatery  
Daily ..... 11:00 a.m.-4:45 p.m.  
Garden Cafe  
Reservations: (212) 769-5865  
Lunch: Mon.-Fri. .... 11:30 a.m.-3:30 p.m.  
Dinner: Fri. & Sat. .... 5:00-7:30 p.m.  
Brunch: Sat. & Sun. .... 11:00 a.m.-4:00 p.m.  
Whale's Lair  
Fri. .... 3:00-8:00 p.m.  
Sat. .... Noon-8:00 p.m.  
Sun. & most holidays .... Noon-5:00 p.m.  
Snack Carts  
Sat. & Sun. .... 11:00 a.m.-4:00 p.m.

**Entrances**  
During Museum hours visitors can enter the building through the 77th Street entrance, the Planetarium entrance (81st Street), the first- and second-floor Roosevelt Memorial Hall entrances (79th Street and Central Park West), or through the subway entrance. **Visitors attending programs after hours can enter the building at 79th Street and Central Park West or through the parking lot at 81st Street.**

- Phone Numbers**  
Museum information .....(212) 769-5100  
Planetarium information .....(212) 769-5900  
Education Department.....(212) 769-5310  
Discovery Tours.....(212) 769-5700  
.....toll-free outside NY State: (800) 462-8687  
IMAX\* .....(212) 769-5034  
Development .....(212) 769-5151  
Communications .....(212) 769-5800  
Volunteer Office.....(212) 769-5566  
Museum Shop .....(212) 769-5150  
Library Services .....(212) 769-5400  
Natural History magazine .....(212) 769-5500  
Members' Choice Collection .....(212) 769-5530  
Members' Birthday Parties .....(212) 769-5542  
Planned Giving Office.....(212) 769-5119  
.....toll-free outside NY State: (800) 453-5734  
Central Reservations.....(212) 769-5200  
World Wide Web Site.....<http://www.amnh.org>

**Parking:** Paid parking is available for those attending Museum programs. The Parking lot is open daily from 7:00 a.m.-11:30 p.m. For information about parking rates, call (212) 769-5238. Call the Membership Office at (212) 769-5606 for information about alternative parking.

# Happenings at the Hayden

## Lectures

**Frontiers in Astrophysics**  
On Monday, October 7, at 7:30 p.m., Edward Belbruno of Princeton University will present an illustrated talk, "Application of Chaos Theory Toward Planned Space Missions in the Solar System." This lecture will take place in the Sky Theater. Tickets are \$8; \$7 for Family/Dual and Higher Members. Discount tickets for the four-lecture series are also available.  
**Program Code: HP102L**

**Special Lecture**  
On Thursday, October 17, at 7:30 p.m., William Sullivan will give an illustrated talk, "The Secret of the Inca Indians: Myth, Astronomy, and the War Against Time." Sullivan's thought-provoking thesis is that the Incas' knowledge of astronomy and the anticipation of the demise of their culture was encoded in their mythology. This talk will take place in the Sky Theater. Tickets are \$8; \$7 for Family/Dual and Higher Members.  
**Program Code: HP101L**

## Sky Show

**Seven Windows to the Universe**  
This Sky Show illustrates how astronomers use not only visible light but also gamma rays, X-rays, microwaves, and radio waves to unlock the secrets of the universe.  
Showtimes:  
Mon.-Fri. .... 1:30, 2:30, 3:30, & 4:30 p.m.  
Sat. .... 1:00, 2:00, 3:00, 4:00, & 5:00 p.m.  
Sun. .... 1:00, 2:00, 3:00, & 4:00 p.m.

Admission (Family/Dual and Higher Members)  
Adults: \$6  
Children (2-12): \$3.50

## Exhibits

**Faster, Cheaper, Better: NASA's New Discovery Program of Planetary Exploration**  
This exhibition features five full-scale models of unusual space probes that will be used in upcoming NASA missions. The models are displayed in the Guggenheim Space Theater and surrounded by a multimedia show. They include the space probe NEAR (Near Earth Asteroid Rendezvous), which is currently conducting a rendezvous with a nearby asteroid that may one day pose a danger to life on earth, and Stardust, which will be sent up in 1999 to collect material scooped from a comet's tail and return it to earth.

**Interpretations of the Cosmos: A Retrospective of Art Used in Planetarium Sky Shows and Exhibits**

For nearly every show and exhibit in the sixty-year history of the Hayden Planetarium, art was created in the cause of science. Sketches, paintings, models, and photographs have been selected from the Hayden archives and put on display for this retrospective of space art. From renditions of the sun, moon, and planets to portrayals of galaxies and the distant universe, the art has always captured the most exciting science of the times.

**Comet Rendezvous**  
In conjunction with the appearance of the Comet

Hyakutake, the Planetarium is presenting an exhibition illustrating what the core of a comet looks like. The exhibition features a working model of a comet nucleus, which releases jets of gas as does an actual comet as it approaches the sun.

## Children's Shows

- Teddy's Quest**  
For ages 3-9 — every Sunday at 11:00 a.m.  
**Wonderful Sky**  
For ages 3-6 — Oct. 5 at 11:00 a.m.  
**The Secret of the Cardboard Rocket**  
For ages 6-9 — Oct. 12 and 19 at 11:00 a.m.  
**Robots in Space**  
For ages 7-12 — Oct. 26 at 11:00 a.m.

For descriptions of these shows, see the September issue of *Rotunda*, or call the Planetarium general information number. Admission for Family/Dual and Higher Members is \$6 for adults and \$3.50 for children. Members can purchase up to four tickets at the Members' price.

## Laser Light Shows

Journey into another dimension where laser visuals and rock music combine to create a dazzling 3-D experience of sight and sound. Shows are presented on Friday and Saturday at 7:00, 8:30, and 10:00 p.m. For prices and show schedule, telephone (212) 769-5100.

It's always a good idea to call before visiting the Planetarium, since prices, programs, and showtimes are subject to change without notice. For information about ticket availability and upcoming lectures and programs, call (212) 769-5200.



# October 1996 American Museum of Natural History

1

**2 7:30 p.m.** Amateur Astronomers Association. "Cataclysmic Variables." Speaker, Joe Patterson. Columbia University. Kaufmann Theater. Free.

3

## Dos Alas/Two Wings



Members of Grupo AfroCuba de Matanzas, above, will perform at 8:00 p.m. on Tuesday, October 8, in the program *Dos Alas/Two Wings*. Call 769-5310 for information.

6

**7 7:30 p.m.** Frontiers in Astrophysics lecture: "Application of Chaos Theory Toward Planned Space Missions in the Solar System." Speaker, Edward Belbruno. Planetarium Sky Theater. Page 11.

**8 7:30 p.m.** Linnaean Society. Leonhardt People Center. Free.

**9 5:30 p.m.** New York Mineralogical Club. Leonhardt People Center. Free.

**10 8:00 p.m.** Spanish Dance Society. Ensemble performs bolero and flamenco dances. Main Auditorium. Page 2.

**13 2:00 p.m.** New York Shell Club. Blum Classroom. Free.

**14** Columbus Day (observed)

**15 7:00 p.m.** Full House: An Evening with Stephen Jay Gould. Main Auditorium. Page 2.

16

**17 7:30 p.m.** The Secret of the Inca Indians: Myth, Astronomy, and the War Against Time. Slide-illustrated talk: speaker, William Sullivan. Planetarium Sky Theater. Page 11.

**18 6:00 p.m.** The Telltale Tour: A Night of Edgar Allan Poe. Museum hall tour. Page 2.

19

**20 12:00 noon.** Hudson Valley Cruise. Cruise and autumn foliage survey. Guide, Sidney Horenstein. Page 2.

21

**22 7:00 p.m.** Lecture on John Burroughs. Slide-illustrated talk. Speaker, Lisa Breslow. Linder Theater. Page 2.

**23 7:00 p.m.** Lakota Sioux Indian Dance Theatre. Presentation celebrating the culture of the Lakota people of the Plains. Main Auditorium. Education Department Program. Page 4.

**24 7:00 p.m.** The Origin of the Earth. Education Department lecture series, part 1. Speaker, David J. Stevenson.

**25 6:00 p.m. and 8:00 p.m.** Ghost Stories for Families and Adults. Storytelling with Laura Simms. Kaufmann Theater. Page 2.

**26** Leonardo's Codex Leices-ter — A Masterpiece of Science opens to the public **9:00 a.m.** Day Trip to Slabsides. Bus trip with talk and tour. Guide, Lisa Breslow. Page 2.

## IMAX<sup>®</sup> Theater

### Cosmic Voyage

Showtimes: 10:30 a.m. and 12:30, 2:30, and 4:30 daily

### Stormchasers

Showtimes: 11:30 a.m. and 1:30 and 3:30 p.m. daily

28

29

**30 7:00 p.m.** Magic Through the Ages. Lecture by Anthony Aveni. Kaufmann Theater. Page 2.

**31** Halloween

**3:45 p.m.** Halloween: The Tour. Volunteer Office guided hall tour with Robert Campanile. No reservations necessary. Page 3.

**7:00 p.m.** The Origin of the Moon. Education Department lecture series, part 2. Speaker, Michael J. Drake.

## Carry the Card!

Please help us serve you more efficiently by bringing your membership card with you each time you visit. Your entry into the Museum is easier when you do. Thanks!

Printed on recycled paper



# ROTUNDA

For Family/Dual and Higher Members of the American Museum of Natural History

Vol. 28, No. 11 December 1996

## Inside Nature:

### "How Do You Get Those Pictures?"

#### An Evening with George Page

Wednesday, January 29  
7:00 p.m.  
Main Auditorium  
\$15 for Members  
\$20 for non-Members  
Program Code: MM6-01



David Healey

Best known as the originator and guiding spirit of the Emmy Award-winning PBS series *Nature*, George Page has enjoyed a long, distinguished career as a public television programming executive, TV journalist, and on-air personality. At this special program, Page will show behind-the-scenes footage from the popular series (now in its fifteenth season), and he'll talk about his work as *Nature*'s host, narrator, and executive editor.

As Channel Thirteen/WNET director of science and natural history programming, Page has been responsible for a number of popular series, including *The Brain* (a Peabody Award winner), *The Mind*, *Childhood*, *Medicine at the Crossroads*, and the weekly series *Travels*.

His career includes a lengthy tenure with NBC News, where he served variously as a foreign correspondent, acting bureau chief, anchorman, and producer. Page's duties included covering the Vietnam War and other major stories of that period. After switching to public television, he worked for the Public Broadcasting System in Washington, D.C., in a variety of positions before joining WNET, the nation's largest public television station. He was awarded a doctorate of humane letters by Emory University, his alma mater, in 1990.

George Page, well-known host of the PBS series *Nature*, comes to the Museum for a special evening program on Wednesday, January 29.

Members' Child/Adult Workshop

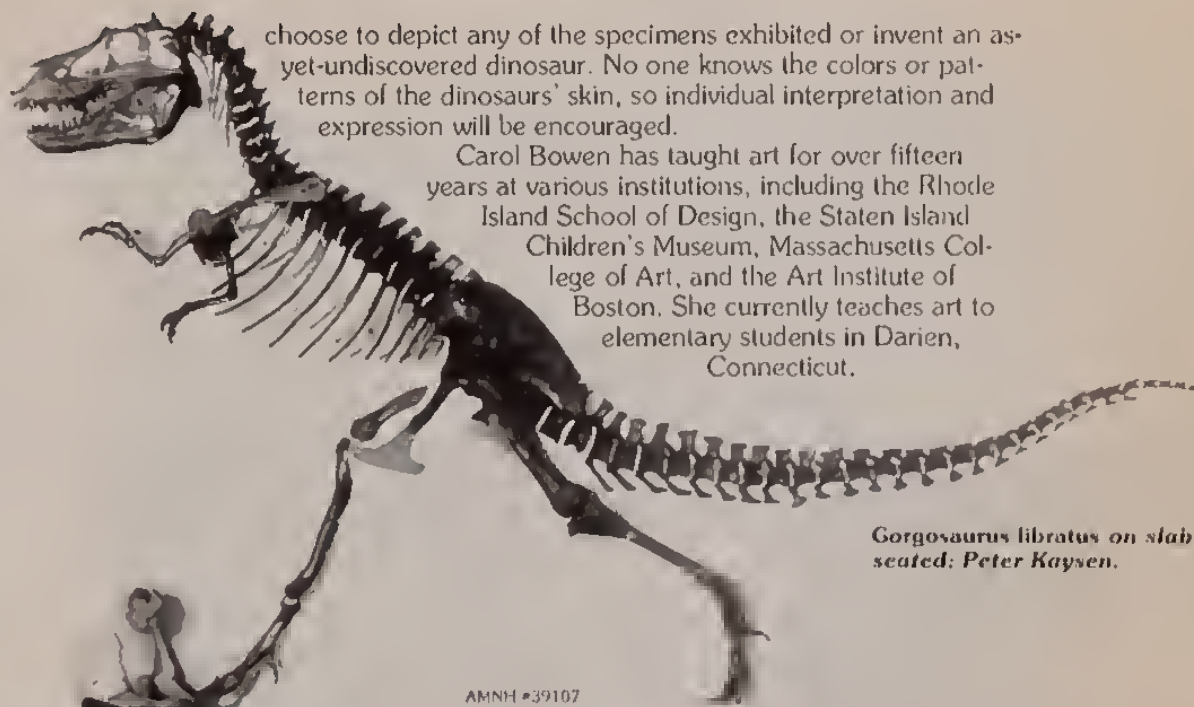
## Ride'em Dinosaurs

Saturday, January 18, two sessions  
11:00 a.m. or 1:30 p.m.  
Blum Lecture Room; ages 6 and above  
\$30 per child/adult couple  
Family/Dual and Higher Members only  
Program Code: MM4-01

Create a dinosaur you can ride! Children and adults will work together to create a hobby-horse-style dinosaur using materials such as cardboard, buttons, fabric, and glitter. After examining real fossils during a brief tour of the dinosaur halls, participants may

choose to depict any of the specimens exhibited or invent an as-yet-undiscovered dinosaur. No one knows the colors or patterns of the dinosaurs' skin, so individual interpretation and expression will be encouraged.

Carol Bowen has taught art for over fifteen years at various institutions, including the Rhode Island School of Design, the Staten Island Children's Museum, Massachusetts College of Art, and the Art Institute of Boston. She currently teaches art to elementary students in Darien, Connecticut.



Gorgosaurus libratus on slab; seated: Peter Kaysen.

AMNH #39107



Grizzly bear foraging



A humpback whale breaching

Coming soon to the Akeley Gallery

### The Tongass: Alaska's Magnificent Rain Forest

This photographic exhibition explores the largest non-equatorial rain forest on earth, which covers 17 million acres across southeast Alaska. The Tongass supports the world's last great populations of grizzly bears and bald eagles and contains some of the grandest and most breathtaking landscapes in the world. Organized by the Smithsonian Institution Traveling Exhibition Service, Tongass will be on view in the 2nd-floor Akeley Gallery from March 1 to June 15, 1997. See upcoming issues of *Rotunda* for more details.



## Second Notice

The following programs were announced in last month's *Rotunda*. Unless otherwise noted, a limited number of tickets are still available. For detailed information on these listings, see the November issue of *Rotunda*. These programs are open only to Family/Dual or Higher Members unless a second price is specified.



David Grover and the Big Bear Band will perform on December 22 in a special holiday program.

### Wolf Restoration: Yellowstone, the Southwest, Japan

Slide-illustrated lecture on the lives of wolves, the history of their planned extermination in this country, and wolf restoration projects here and abroad. Speaker, Rick McIntyre. Tuesday, December 3, 7:00 p.m. \$12; \$8 for Family/Dual and Higher Members. Program Code: MM1-12

### The Geology of New York

Slide-illustrated lecture on what made New York City what it is today — geologically. Speaker, Sidney Horenstein. Wednesday, December 11, 7:00 p.m. \$9; \$6 for Family/Dual and Higher Members. Program Code: MM2-12

### Make Your Own Gingerbread House

Holiday workshop for children accompanied by adults, conducted by June Myles. Sat.,

Dec. 14, and Sunday, Dec. 15. Two sessions on both days: 10:00 a.m.–12:00 p.m. or 1:00–3:00 p.m. Appropriate for ages 5–10. \$30 per child/adult couple. Program Code: MM3-12

### Walking with the Great Apes

Slide-illustrated lecture on pioneering primatologists Jane Goodall, Dian Fossey, and Birute Galdikas. Speaker, Sy Montgomery, author of *Walking with the Great Apes*. Wednesday, December 18, 7:00 p.m. \$12, \$8 for Family/Dual and Higher Members. Program Code: MM4-12

### A Museum Carol

Museum hall tour with an environmental theme for the

holidays, conducted by Robert Campanile. Friday, December 20, 6:30 p.m. Free, and open only to Family/Dual and Higher Members. Because of limited space, tickets are available by mail only. Program Code: MM5-12

### David Grover and the Big Bear Band Songs and Stories for the Holiday Season

A family program of sing-along, dancing, and performance, featuring songs from "Ernestine the Green-Eyed Elf." Sunday, December 22. Two sessions: 11:00 a.m. or 1:00 p.m. \$12; \$8 for Family/Dual or Higher Members. Program Code: MM6-12

## ROTUNDA

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## Introduction to Origami

### Three Sessions:

January 11, January 26, February 8

2:00 p.m.–4:30 p.m.

Fee: \$25 a session

This one-day class is designed to introduce the amazing art of paper folding to those with little or no experience. You will learn terminology and basic folds plus several delightful models. The class is taught by OrigamiUSA, which is a not-for-profit arts organization headquartered here in the Museum. It is geared for adults, but children ages seven to twelve are welcome with an adult chaperone. All materials are included in the fee.

To register, call OrigamiUSA at (212) 769-5635 on Monday, Wednesday, or Friday from 10:00 a.m. to 4:00 p.m., and ask about the Introduction to Origami class.



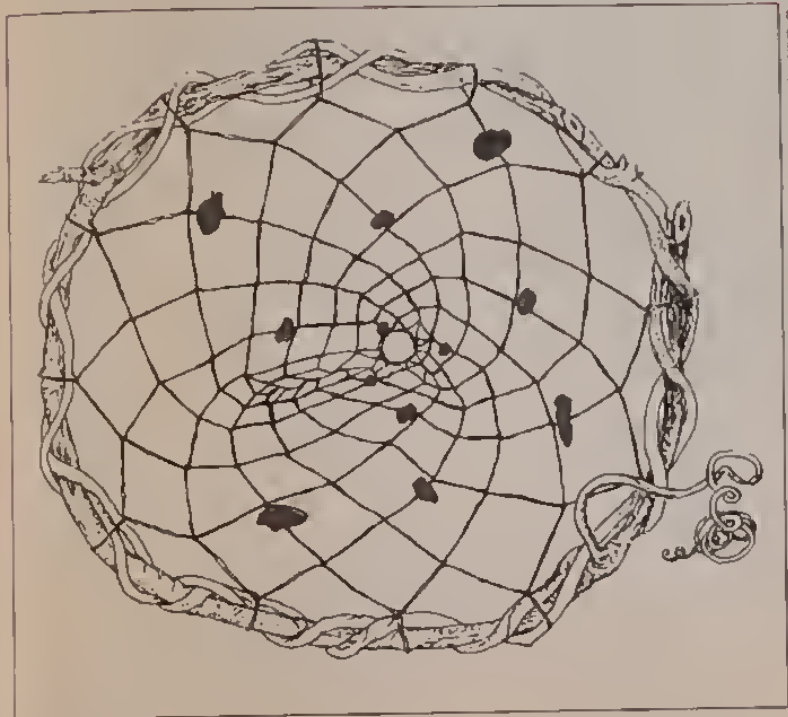
OrigamiUSA instructor Ron Weinstock's class is very proud of their models.



## Members' Child/Adult Workshop

# Weave a Winter Dreamcatcher

Sunday, January 5, 11:00 a.m.  
Blum Lecture Room  
Appropriate for ages 8 and older  
\$24 per child/adult couple, and open only to  
Family/Dual and Higher Members  
Program Code: MM1-01



"Dream weaving and the use of special amulets has much to teach us about our creative dreaming process." Bring your children and join E. Barrie Kavach to learn how to construct your own dreamcatcher on Sunday, January 5.

We all dream every night, whether we remember our dreams or not. Some Native American peoples believe the air is filled with dreams, both good and bad, and that each one brings special gifts. According to Native American traditions, the dreamcatcher can help sort out dreams by protecting and guiding the good ones through to the dreamer and fending off the bad ones whose rough edges catch in the dream web and are held fast until dispelled by morning light.

The practice of dream weaving and the use of special amulets have much to teach us about our creative dreaming process. Join E. Barrie

Kavach, a writer/artist of Cherokee, Creek, and Powhatan (along with Scottish/Irish and German) descent, and weave your own dreamcatcher. Kavach will share Native American stories, including legends of the dreamcatcher, and creative ideas during this workshop. Dreamcatchers perfect for every age will be constructed.

Kavach is a trustee and research associate at the Institute for American Indian Studies in Washington, Connecticut, and editor and contributing author of the award-winning *Earthmaker's Lodge: Native American Folklore, Activities, and Foods* (Cobblestone, 1994).

## Members' Lecture Program

# What's Your Stone? The Origin of Birthstones

Wednesday, January 8, 7:00 p.m.  
Miriam and Ira D. Wallach Orientation Center  
\$6 for Members; \$9 for non-Members  
Program Code: MM2-01



Joe Peters, a Museum mineralogist, will reveal the fascinating history of the custom of wearing birthstones in a slide lecture on January 8.

Birthstones, which derive from the twelve zodiacal gemstones worn in ancient Babylon, Israel, Rome, and Arabia, will be the subject of a talk by Joe Peters, a mineralogist in the Department of Earth and Planetary Sciences.

Birthstones, says Peters, are an earthly kind of stardust. In a slide-illustrated talk, he will trace the curious and fascinating Judeo-Christian cus-

tom that led astrologers and mystics to evolve a belief system linking human destiny with earth's gemstones. Peters will explain how the original meaning of the custom of birthstones has been obscured with the widespread adoption of a list of a new group of birthstones touted at a jeweler's convention in Kansas City, Missouri, in 1912. The talk reacquaints participants

with ancient beliefs about a current custom — a tradition linked to a religious icon made some 3,000 years ago.

Peters works with the Museum's collection of about 100,000 mineral and gem specimens. Together with George E. Harlow he co-authored *Minerals and Gems from the American Museum of Natural History*, a guide to the collections

## At the Museum Shops



"The World of Cats" — ten nesting dolls, handpainted in Russia and signed by the artist — was made exclusively for the Museum Shops. Price: \$250 (\$225 for Members).

This holiday season the Museum Shops are offering new services to make your gift giving easier. Gift certificates, available for the first time, can be purchased in any whole dollar amount at our Main Shop, Gallery Three Shop, and Shop on Four. The certificates are redeemable in any of our shops. Prewrapped gift items — including ties, scarves, and frames — will be available in the Main Shop and in Shop on Four.

Another "first" is our Members' Shopping Day on Friday, December 6. On this special day, from 10:00 a.m. to 8:45 p.m., Members will receive an additional 10 percent discount off their

already discounted purchases in any of our shops. We will feature new and unusual products, many unavailable elsewhere. Our beautiful new icon tie and scarf, which boast a striking geometric pattern, both feature the ten images that symbolize our curatorial departments (tie, \$32 or \$28.80 for Members; scarf, \$55 or \$49.50 for Members).

Four of the Museum's wonderful dioramas are now pictured on reusable canvas lunch sacks, mugs, and notecards, as well as on mini tote bags containing plush toys of the animals represented in each of the four dioramas.

The new amber, gem, and

mineral section of the Main Shop offers a variety of stunning jewelry and specimens, and our Dinostore, Toy Shop on Two, and Junior Shop continue to carry an assortment of fun and educational gifts for children that encourage them to learn while they play.

Add to this a selection of holiday ornaments, giftwrap, and greeting cards, and you have a great source for all your holiday shopping needs.

All of our products can be ordered by mail by calling (212) 769-5150, Monday through Friday, 9:00 a.m. to 5:00 p.m. (Please note that mail orders may require up to two weeks for delivery.)

## Members' Guided Tour

# "This Day We Sailed on . . ."

Friday, January 24, 6:30 p.m.  
Departure point: Members' Lounge  
Family/Dual and Higher Members only  
Program Code: MM5-01

Just what sort of ships were used by the first people who ventured out to sea? More importantly, what sort of people dared to venture? Join Robert Campanile, who will seek an answer by investigating the history of ships and the explorers who sailed on them.

The Museum's halls contain numerous ship models and full-size displays. Tracing their history and reading from

explorers' logs, participants in this tour will share moments of despair, euphoria, imminent death, and hard-won achievement. Most of all, they will experience the greatest of human urges — to explore.

Please note that because of limited space, tickets are available by mail only for these free tours, on a first come, first-served basis. Use the Central Reservations Coupon on page 6 to register.



# Courses for Stargazers

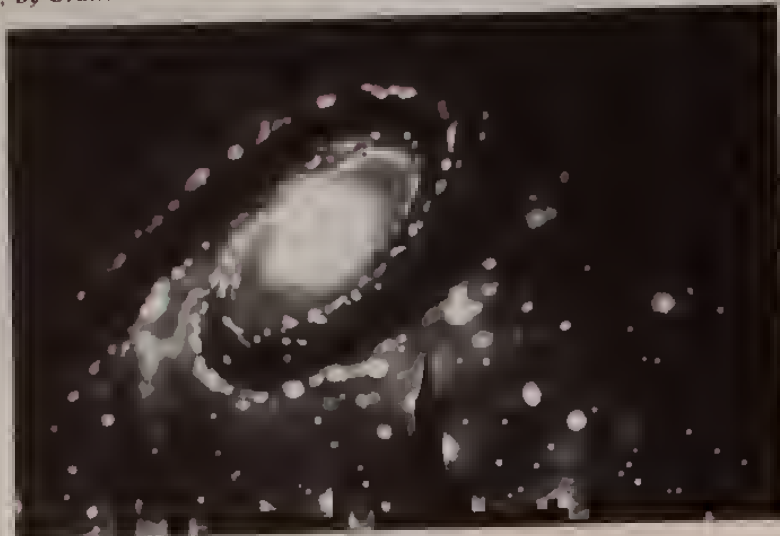


Voyager II fly-by, by Uranus

## Astronomy: Basic Courses

**Introduction to Astronomy**  
Eight Thursdays, beginning  
Jan. 16; 6:30-8:40 p.m.  
\$95; \$85.50 for Members

This first course in astronomy introduces the universe to persons with no mathematics or physics background. Topics include Earth as a planet, the moon, solar system, stars, Milky Way, galaxies, quasars, and black holes. The course explains common phenomena, such as planet motions,



"City of Stars"



Clementine Exhibit

the rising and setting of the sun and moon, and so on. No previous knowledge of astronomy is assumed. This course serves as a prerequisite for the intermediate-level courses, in which specific areas are covered in more detail.  
Instructor: Francine Jackson  
**Program Code: HP3**

**Adventures in Astronomy**  
Seven Saturdays, beginning  
Jan. 11; 9:40-11:40 a.m.  
\$85; \$76.50 for Members

Confused about the difference between a star and a planet? Can't tell astronomy from astrology? Don't know Aquarius from Sagittarius or a black hole from a brown dwarf? Join this Saturday course for the whole family (recommended for ages ten and up) to explore the birth and death of stars, the origin of the universe, the search for extraterrestrial life, and the current night sky.  
Instructor: Craig Small  
**Program Code: HP6**

**Life Beyond the Earth:  
The Search for Life  
in the Cosmos**  
Eight Mondays, beginning

making another quantum leap forward. The Hubble Space Telescope is designed to yield unprecedented detailed views of the universe that are unobtainable with even the largest ground-based instruments. This course focuses on the Hubble as a complex vehicle designed and operated by skilled and dedicated scientists who are, in the words of Galileo, resolving many of the "wondrous things" in our richly endowed universe. With the help of models and guest speakers who participated in the early conception and in present-day activities of the Hubble, students learn about

its advanced design, research projects, and capabilities as well as present-day and planned operations, its on-board instruments, imaging functions, and overall scientific mission. Using the latest Hubble images available, students explore the outer limits of our known universe where black holes, quasars, previously unknown galactic structures, and new planets exist and the nebular cradles of stellar creation and death wait.  
Instructor: William Dorsey  
**Program Code: HP14**

**Exploring Mars**  
Six Thursdays, beginning Jan.  
16; 6:30-8:10 p.m.  
\$60; \$54 for Members

Since the time of Kepler, the red planet has exerted a special hold on the human imagination. The most Earth-like planet in the solar system, Mars has very nearly the same land area and solar day as our own but is otherwise a study in extreme terrain and climate. Its extinct volcanoes are several times taller and larger than Earth's most mountainous ranges, and its canyon, Valley of the Mariners, spans the length of a terrestrial continent. The Martian seasons are punctuated with northern winter episodes of planet-encircling dust storms.

Following a twenty-year hiatus in the study of the red planet from interplanetary spacecraft, NASA is planning a return to Mars with the *Pathfinder* lander and *Global Surveyor* orbiter missions. This course reviews the history and current understanding of the geology, meteorology, and the search for life on Mars, as well as the prospects for its continued exploration by robotic spacecraft and eventual human expeditions.  
Instructor: Michael Allison  
**Program Code: HP16**

## Seminar on the Principles and Methods of Cosmology

Eight Wednesdays, beginning  
Jan. 8; 6:30-8:40 p.m.  
\$95; \$85.50 for Members

This seminar is designed for students interested in examining in greater depth the rapidly growing science of cosmology. Readings and discussions examine the principles, methods, and subject matters of modern cosmology, which merges the techniques of traditional observational astronomy with modern theories about the nature of the universe. Specific topics include how Einstein's basic philosophical theory developed into a model that became "normal science" as well as the target of rigorous investigation and the fuel for scientific progress. With the use of concrete examples, emphasis is on how scientists work. Students examine the methods used by astronomers and cosmologists to reveal and demonstrate the homogeneity and isotropic properties of our known universe as they relate to its structure and evolution.  
Instructor: William Dorsey  
**Program Code: HP20**

## Meteorology

### Weather Analysis and Prediction

Six Mondays, beginning Jan.  
6; 6:30-8:40 p.m.  
\$70; \$63 for Members

A hands-on course that takes students into the realm of maps and forecasts seen on television and in newspapers. Students gain an understanding of, and learn how to analyze, the different types of air masses, fronts, and circulations that are represented on weather maps. The jet stream, upper atmosphere, and various means of weather prediction are examined, with topics ranging from modern computer-generated forecast models to the more timeless "art" of reading the sky. No formal training in physics or mathematics is required.  
Instructor: Barry Grossman  
**Program Code: HP26**

## Science Fiction

### Science Fiction and Contemporary Society

Four Tuesdays, beginning  
Jan. 7; 7:00-9:10 p.m.  
\$50; \$45 for Members

How do science fiction's imaginative visions reflect our world? What methods do authors of fantastic texts use to mirror real-world contexts? This course addresses these questions by focusing on science fiction's classic writers (Asimov and Clarke), the revolutionary creators of the New Wave (Delaney and LeGuin), and exciting new voices (Butler and Tepper). Students explore what science fiction has to say about social fact. A reading list is distributed at the first meeting.  
Instructor: Marleen Barr  
**Program Code: HP27**

"Space Art" on this page  
by Brian Sullivan

## Navigation: Basic Course

### Navigation in Coastal Waters

Eight Tuesdays, beginning  
Jan. 7; 6:30-9:00 p.m.  
\$110; \$99 for Members

This is an introduction to piloting and dead reckoning for present and prospective owners of small boats. The course provides practical chartwork and includes such topics as compass bearings, fixes, buoys and lighthouses, the running fix, current vectors and tides, and rules of the nautical road. Boating safety is emphasized. No prerequisites. Students are required to purchase an equipment kit.  
Instructor: Gregory Smith  
**Program Code: HP33**

## Navigation: Intermediate Courses

### Introduction to Celestial Navigation

Ten Mondays, beginning Jan.  
6; 6:30-8:40 p.m.  
\$110; \$99 for Members

This class is for those who have completed *Navigation in Coastal Waters* or who have equivalent piloting experience. It covers the theory and practice of celestial navigation, the sextant and its use, and the complete solution for a line of position. Emphasis is placed on problem solving and chartwork. Students are required to purchase a copy of *Sight Reduction Tables for Marine Navigation, Volume 3* (Pub. No. 229).  
Instructor: Gregory Smith  
**Program Code: HP36**

### Troubleshooting Celestial Navigation

Four Tuesdays, beginning  
Jan. 7; 6:30-8:40 p.m.  
\$50; \$45 for Members

This short course is designed for students who are self-taught or merely familiar with techniques for navigating by the stars but need some practice to get jump started. Sessions include a review of the basic theory of celestial navigation; use of *Volume 1 HO 249, the Rude Star Finder*, and the *Nautical Almanac* for pre-calculation of star sights; calculation of LAN and twilight for star sights; review of star sights, moon shots, planet shots, and plotting; and use of celestial computers, sextants, and shooting technique. Time is allotted to address the particular trouble spots that students have encountered. No text is required; handouts are provided.  
Instructor: David Berson  
**Program Code: HP38**

Note that Members' prices also apply to senior citizens and students. You can register for these Planetarium courses by filling out the Central Reservations Coupon on page 6, or by calling Central Reservations with your credit card number. Be sure to include the Program Code in your coupon or credit card reservation request. If you have any questions, call the Planetarium at (212) 769-5200.



## From the Volunteer Office

### Lift the Orange Flag

Everyone who has ever followed the orange flag of a Museum Highlights Tour has walked away with a fresh store of fascinating information. If you want to be as well versed as our volunteer guides and would like to share your knowledge with others — you can!

Interviews for volunteer Highlights Tour guides will be held in January, and an intensive six-month training program will begin in March. Bilingual candidates are encouraged to apply. Volunteers are required to make at least a two-year commitment to the program. Our guides regularly conduct a minimum of twenty-four public and private tours per year.

Before applying, please take one of the free Museum Highlights Tours offered daily. Stop by the Volunteer Office on the first floor or call (212) 769-5566 to get our tour schedule and to request a tour guide application form.

### Friday the Thirteenth: Superstitious Nature

**Friday, December 13  
6:30 p.m.  
No registration  
Meeting point:  
Second-floor rotunda**

Superstitions from the remote past are still alive and well in this rational age. Why do we still believe in them? Many of them have roots in natural history and ancient lore.

Cautiously walk with Robert Campanile through the halls of the Museum this Friday the thirteenth. Together with him you will discover the sources that still exert a powerful hold over our lives and imaginations.

It may not stop us from believing, but the tour may provide us with a more profound vision of the world we live in. Bring your rabbit's foot — just in case.

### Members' Subterranean Tour

## The Art of the IRT



City Hall Station in 1904

Members can get better acquainted with the subway system's history and design during this special subterranean tour, which will feature an exploration of an abandoned downtown station.

The tour begins with an illustrated lecture at the Transit Museum focusing on the design and ornamentation of the city's subway stations. Afterward, participants will walk to the Borough Hall station and take the Number 4 or 5 train to the Brooklyn Bridge station. Here, they'll board a train that will enter the loop of the City Hall station, no longer in use as a subway line stop, where trains turn around to head back uptown.

Built in 1904 as the first IRT station, the

City Hall station was designed by the architectural firm of Heins & La Farge and was embellished in the turn-of-the-century style that is associated with the City Beautiful movement.

This lecture and tour will be hosted by John Tauranac, a writer and map maker who in 1979 designed the official New York City subway map still in use today. His most recent book is *The Empire State Building: The Making of a Landmark* (Scribner, 1995). He has lectured on New York history and architecture at NYU's School of Continuing Education and the Bard Graduate Center and has led numerous tours of the city for groups including the Municipal Art Society and the 92nd Street Y.

**Tuesday, January 14  
6:00 p.m.-8:30 p.m.**

**Departure point:  
N.Y.C. Transit Museum  
Fee: \$30  
Open only to  
Family/Dual and  
Higher Members**

**Program Code:  
MM3-01**

## Exhibit of the Month

### The Gentle Giant

The whale shark is the largest of the living fishes. The fourteen-foot specimen found in the Museum's Hall of Ocean Life — the only shark cast on display covered in its own skin — is a juvenile. Adult whale sharks can grow to as long as sixty feet. That's as long as a New York City subway car!

Most fish have thin skins protected by a coating of scales, but sharks have thick hides covered with dermal denticles. These sharp, hard calcium structures protrude from the skin and point backward, toward the shark's tail. Like teeth, denticles are lost and replaced as the shark grows. It is the denticles that give the shark's skin a sandpaperlike roughness.

Many of the other sharks displayed in the hall have large serrated teeth that are ideal for slicing through large prey. In contrast, the whale shark's huge mouth contains about three thousand tiny teeth. This animal is a filter

feeder and swims with its mouth open, taking in huge quantities of plankton and water. It expels the water through the gills, but the food is kept inside, trapped by a spongy filter across the gill arches.

Scientists once believed the whale shark reproduced by laying eggs externally, but in 1995 a thirty-five-foot female whale shark, harpooned off the coast of Taiwan, was found to be pregnant with an astonishing three hundred embryos. That number far exceeds the young attributed to any other species of shark. It turns out that whale sharks are ovoviviparous: they produce eggs with enclosing membranes that hatch within the female, so that the young are born alive. The mother whale shark retains the egg cases within her body after the eggs hatch, and the yolk sacs nourish the young until they are born and can begin feeding in the ocean.

—Erica Okone



Model of a whale shark, frontal view



Marco Hernandez

## Children's Birthday Parties at the Museum

Give your child the "wildest" party in town. Let us help you celebrate your child's birthday here and make it an unforgettable adventure.

Select one of our many birthday party themes, all of them combining two hours of learning and fun in the fascinating environment of the Museum. Children can take the Safari Party through Africa, discover the wonders of prehistory at the ever-popular Dinosaur Party, track the cultures of Native Americans at the Plains Indians Party, or choose from four other exciting party themes.

These parties are open only to Members at the Contributor level and above. The size of the group is restricted to a minimum of ten and a maximum of twenty children. The cost is \$750

for groups of from ten to fifteen children and \$850 for groups of from sixteen to twenty. This fee covers all materials and the services of Museum staff and party coordinators, who customize every party to suit the individual needs of the birthday child and family. We handle all the details — from candles to party favors. Parents need only bring the cake.

For more details and to find out how to reserve a time and place for your child's birthday party, please call the Membership Office at (212) 769-5542, fax us at (212) 769-5427, or write to: Members' Birthdays, Membership Office, American Museum of Natural History, Central Park West at 79th St., New York, New York 10024-5192.

The Membership Office would like to thank the following young Members who celebrated their birthdays here recently: Venkat Kausik, Jake DeMartini, Brennan Carley, Yarden El Hanan, Lddie Rakowicz, Nicoline Bergsma, and Derya Gulluova.



Cruise the upper Amazon on April 11 to 21 from Iquitos, Peru, to Manaus, Brazil, on a part of the river that flows through thick rain forest teeming with exotic tropical wildlife. Participants will explore an intricate web of narrow tributaries in Zodiac landing craft in the company of Museum scientists and naturalists. They will look for colorful tropical birds like toucans and macaws and other wildlife including caimans, pink freshwater dolphins, three-toed sloths, and howler and capuchin monkeys. There is also an optional precruise excursion to Cuzco and Machu Picchu. Rates for the cruise are \$3,775-\$4,995 per person, double occupancy, with international air fare from Miami at \$1,150.

For more information, call Discovery  
Tours at (800) 462-8687 or (212)  
769-5700, Monday through Friday from  
9:00 a.m. to 5:00 p.m.

Available Friday and Saturday Evenings

Per adult \$26. Member price \$24. Per child \$14\*

**Double Feature, now playing:**

Hours

*Lunch, Mon.-Fri: 11:30 - 3:30*

**Saturday and Sunday: 11:00 - 4:00**

Dinner seating, Fri.-Sat: 5:00 - 7:30

GARDEN CAFE

AMERICAN MUSEUM OF NATURAL HISTORY



## Membership Programs

Membership Programs			# of Membership Reservations	# of non-Membership Reservations	Total Amount Enclosed
Program Title	Code	Date/Time			
					\$ _____
					\$ _____
					\$ _____
					\$ _____
<b>Education Department</b>					\$ _____
					\$ _____
					\$ _____
					\$ _____
					\$ _____
<b>Hayden Planetarium</b>					\$ _____
					\$ _____
					\$ _____
					\$ _____
				<b>Total Amount Enclosed:</b>	\$ _____

Name: \_\_\_\_\_

Phone (day): \_\_\_\_\_ (eve.): \_\_\_\_\_

**Address:** \_\_\_\_\_

Charge my: Amer. Ex. \_\_\_\_\_ Visa \_\_\_\_\_ Master Card \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Card Number: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_

**Membership Category:** \_\_\_\_\_

Signature: \_\_\_\_\_ Expiration Date: \_\_\_\_\_



# Museum Notes

**Hours**  
Exhibition Halls  
Mon.-Thurs. & Sun. .... 10:00 a.m.-5:45 p.m.  
Fri. & Sat. .... 10:00 a.m.-8:45 p.m.  
The Museum Shop  
Mon.-Thurs. & Sun. .... 10:00 a.m.-5:45 p.m.  
Fri. & Sat. .... 10:00 a.m.-7:45 p.m.  
The Junior Shop  
Mon.-Fri. .... 10:00 a.m.-4:45 p.m.  
Sat. & Sun. .... 10:00 a.m.-5:45 p.m.  
The Museum Library  
Tues.-Fri. .... 11:00 a.m.-4:00 p.m.

**The Natural Science Center**  
There are many wild places in the New York City area, and the Center features these habitats' plants and live animals. Closed holidays  
Tues.-Fri. .... 2:00-4:30 p.m.  
Sat. & Sun. .... 1:00-4:30 p.m.  
Thursday storytelling. .... 3:00 p.m.

**Museum Dining**  
**Diner Saurus Fast Service Eatery**  
Daily .... 11:00 a.m.-4:45 p.m.  
**Garden Cafe**  
Reservations: (212) 769-5865  
Lunch: Mon.-Fri. .... 11:30 a.m.-3:30 p.m.  
Dinner: Fri. & Sat. .... 5:00-7:30 p.m.  
Lunch: Sat. & Sun. .... 11:00 a.m.-4:00 p.m.  
**Whale's Lair**  
Fri. .... 3:00-7:30 p.m.  
Sat. .... Noon-7:30 p.m.  
Sun. & most holidays .... Noon-4:00 p.m.  
**Snack Carts**  
Sat. & Sun. .... 11:00 a.m.-4:00 p.m.

## List of Exhibits

Exhibit	Location	On View Until
<b>Leonardo's Codex Leicester: A Masterpiece of Science</b>	Gallery 3, 3rd floor	1/1/97
<b>Okovango: African's Last Eden</b>	Akeley Gallery, 2nd floor	1/5/97
<b>Purposeful Traveler: Titian Ranisey Peale</b>	Library Gallery, 4th floor	2/1/97
<b>Life on Mars?</b>	Hayden Planetarium, Guggenheim Theater	12/30/96

**Hall Closings:** The Biology of Birds Hall is closed indefinitely; Gallery 77 is closed for structural repairs.  
**IMAX®:** Cosmic Voyage — 10:30 a.m. and 12:30, 2:30, and 4:30 p.m. daily  
Stormchasers — 11:30 a.m. and 1:30 and 3:30 p.m. daily

**Entrances**  
During Museum hours visitors can enter the building through the 77th Street entrance, the Planetarium entrance (81st Street), the first- and second-floor Roosevelt Memorial Hall entrances (79th Street and Central Park West), or through the subway entrance. **Visitors attending programs after hours can enter the building at 79th Street and Central Park West or through the parking lot at 81st Street.**  
**Phone Numbers**  
Museum information .... (212) 769-5100  
Planetarium information .... (212) 769-5900  
Education Department .... (212) 769-5310  
Discovery Tours .... (212) 769-5700  
..... toll-free outside NY State: (800) 462-8687  
IMAX® .... (212) 769-5034

Development .... (212) 769 5151  
Communications .... (212) 769-5800  
Volunteer Office .... (212) 769 5566  
Museum Shop .... (212) 769-5150  
Library Services .... (212) 769-5400  
Natural History magazine .... (212) 769-5500  
Membership Office .... (212) 769-5606  
Members' Birthday Parties .... (212) 769 5542  
Planned Giving Office .... (212) 769-5119  
..... toll-free outside NY State: (800) 453-5734  
Central Reservations .... (212) 769-5200  
World Wide Web Site .... <http://www.amnh.org>

**Parking:** Paid parking is available for those attending Museum programs. The parking lot is open daily, 7:00 a.m.-11:30 p.m. For parking rates, call (212) 769-5238. Call the Membership Office at 769-5606 for information about alternative parking.

## Happenings at the Hayden

### Lectures

**Frontiers in Astrophysics**  
On Monday, December 2, at 7:30 p.m. in the Sky Theater, David Helfand of the Department of Astronomy at Columbia University will present an illustrated talk, "The Universe in Radio Waves: Challenges and Discoveries from an All-Sky Survey." Program Code: HP104L  
  
On Monday, January 6, at 7:30 p.m. in the IMAX® theater, Steven Kawaler of the Department of Physics and Astronomy at Iowa State University will present an illustrated talk, "From Earthquakes to Starquakes: Stellar Seismology in the Galaxy." Program Code: HP105L  
  
Tickets for these lectures are \$8; \$7 for Family/Dual and Higher Members. Call (212) 769-5100 for more information.

### Holiday Concert

**Mostly Jazz — Under the Stars**  
Join Joe Traina and his Mostly Jazz Ensemble in an evening of new compositions and jazz standards inspired by celestial themes, such as "Moon River" and "Blue Skies." Music will be accompanied by a tasteful assortment of stars, lasers, and other special effects projected on the domed canopy of the Planetarium's Sky Theater. Tickets are \$15; \$13 for Family/Dual and Higher Members.  
Wednesday, December 11, at 7:30 p.m.  
Program Code: HP106L  
Thursday, December 12, at 7:30 p.m.  
Program Code: HP107L

### Sky Shows

**Seven Windows to the Universe**  
This Sky Show illustrates how astronomers use not only visible light but also gamma rays, X-rays, microwaves, and radio waves to unlock the secrets of the universe.  
**Showtimes through January 1, 1997**  
Mon.-Fri. . . . 1:30 & 3:30 p.m.

Sat. .... 1:00, 3:00, & 5:00 p.m.  
Sun. .... 1:00 & 3:00 p.m.

**Star of Christmas**  
Presented through January 1, 1997  
In this holiday story, you will gaze out on a clear winter's night and travel back nearly 2,000 years to explore the skies of the first Christmas. Just what led the Wise Men to Bethlehem? Was it a special star that no one else had seen before? A comet? A meteor? A rare gathering of planets? Or something else? The story of how historians, theologians, linguists, and astronomers have worked together to explore these questions is one of beauty and intrigue.  
**Showtimes**  
Mon.-Fri. .... 2:30 & 4:30 p.m.  
Sat. & Sun. .... 2:00 & 4:00 p.m.  
**Admission, Family/Dual and Higher Members**  
Adults: .... \$6.00  
Children (2-12): . . . \$3.50

### Exhibits

**Foster, Cheaper, Better:  
NASA's New Discovery  
Program of Planetary  
Exploration**  
This exhibition features live full-scale models of unusual space probes that will be used in upcoming NASA missions. Displayed in the Guggenheim Space Theater and surrounded by a multimedia show, they include the space probe NEAR (Near Earth Asteroid Rendezvous), which is currently conducting a rendezvous with a nearby asteroid that may one day pose a danger to life on earth, and Stardust, which will be sent up in 1999 to collect material scooped from a comet's tail and return it to earth.

**Interpretations of the Cosmos:  
A Retrospective of Art  
Used in Planetarium  
Sky Shows & Exhibits**  
For nearly every show and exhibit in the sixty-year history of the Hayden Planetarium, art was created in the cause of science. Sketches, paintings,

models, and photographs have been selected from the Hayden archives and put on display for this retrospective of space art. From renditions of the sun, moon, and planets to portrayals of galaxies and the distant universe, the art has always captured the most exciting science of the times.

**Comet Rendezvous**  
In conjunction with the appearance of the comet Hyakutake, the Planetarium is presenting an exhibition illustrating what the core of a comet looks like. The exhibition features a working model of a comet nucleus, which releases jets of gas as does an actual comet as it approaches the sun.

### Children's Shows

**Teddy's Quest**  
For ages 3-9 — every Sunday at 11:00 a.m.  
**Wonderful Sky**  
For ages 3-6 — Dec. 7 at 11:00 a.m.  
**The Secret of the Cardboard Rocket**  
For ages 6-9 — Dec. 14 and 21 at 11:00 a.m.  
**Robots in Space**  
For ages 7-12 — Dec. 28 at 11:00 a.m.

For descriptions of these shows, call the Planetarium at (212) 769-5100. Admission for Family/Dual and Higher Members is \$6 for adults and \$3.50 for children. Members can purchase up to four tickets at the Members' price, and tickets can be purchased the day of the show.

### Laser Light Shows

Journey into another dimension where laser visuals and rock music combine to create a dazzling 3-D experience of sight and sound. Shows are presented on Friday and Saturday at 7:00, 8:30, and 10:00 p.m. For prices and show schedule, telephone (212) 769-5100.

It's always a good idea to call before visiting the Planetarium, since prices, programs, and showtimes are subject to change without notice. For more information about these programs, or for general Planetarium information, call (212) 769-5100.



**Sun**

**Mon**

**Tue**

**Wed**

**Thu**

**Fri**

**Sat**

**1**

## Carry the Card!

Please help us serve you more efficiently by bringing your membership card with you each time you visit. Your entry into the Museum is easier when you do. Thanks!

**2 7:00 p.m.** "Leonardo's Water Works." Third in a series of Education Department lectures on Leonardo da Vinci's Codex Leicester.

Speaker, A. Richard Turner. Kaufmann Theater.

**7:30 p.m.** "The Universe in Radio Waves: Challenges and Discoveries from an All-Sky Survey." Hayden Planetarium lecture. Page 7.

**3 7:00 p.m.** Wolf Restoration: "Yellowstone, the Southwest, and Japan." Lecture program.

Speaker, Rick McIntyre. Page 2.

**4 7:45 p.m.** Amateur Astronomers Association. "Supernova Ejecta from Red Giants." Speaker, Pat Higgins. Kaufmann Theater. Free.

Speaker, Rick McIntyre. Page 2.

**5 7:00 p.m.** "Eyewitness to Discovery: The World's Great Archeological Finds." Education Department lecture program.

Speaker, Brian M. Fagan. Free.

**6 Hanukkah**

**7 11:00 a.m.** New York Map Society. Linder Theater. Free.

**8**

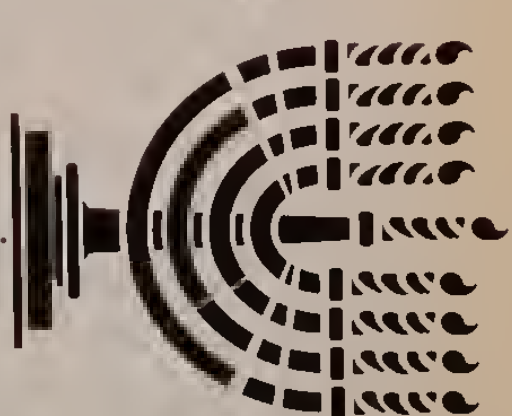
**9 7:00 p.m.** "Leonardo: Art in Science." Last in a series of Education Department lectures on Leonardo da Vinci's Codex Leicester. Speaker, James S. Ackerman. Kaufmann Theater.

**10 7:30 p.m.** Linnaean Society. Linder Theater. Free.

**11 5:30 p.m.** New York Mineralogical Club. Leonhardt People Center. Free.

**7:00 p.m.** The Geology of New York. Slide-illustrated lecture program. Speaker, Sidney Horenstein. Page 2.

**12 7:30 p.m.** Mostly Jazz — Under the Stars. Hayden Planetarium holiday concert — repeat performance.



**14 10:00 a.m. or 1:00 p.m.** Two 2-hour sessions. Make Your Own Gingerbread House. Members' children/adult workshop, conducted by June Myles. Page 2.

**15 10:00 a.m. or 1:00 p.m.** Two 2-hour sessions. Make Your Own Gingerbread House. Second day of Members' children/adult workshop, conducted by June Myles. Page 2.

**16**

**17 7:00 p.m.** New York Entomological Club. Leonhardt People Center. Free.

**18 7:00 p.m.** Walking with the Great Apes. Slide-illustrated lecture program. Speaker, Sy Montgomery. Page 2.

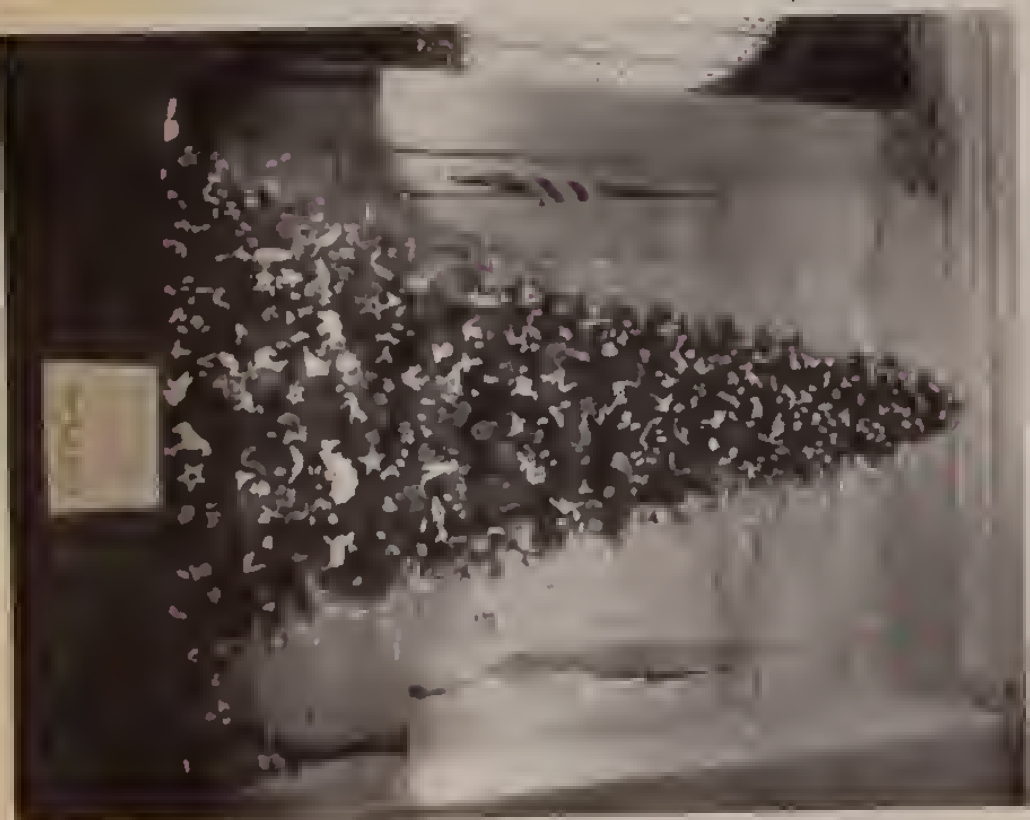
**19**

**20 6:30 p.m.** A Museum Carol. Members' guided tour, conducted by Robert Campanile. Page 2.

**22 10:30 a.m.** New York Turtle and Tortoise Society. Blum Classroom. Free.

**11:00 a.m. or 1:00 p.m.** two sessions. David Grover and the Big Bear Band. Performance of songs and stories for the holiday season. Page 2.

**29 12:00 noon to 4:30 p.m.** The Discovery Room is open on this last weekend of the month, both on Saturday the 28th and Sunday, the 29th. Museum Magic theme for the month: "Survival Suits." For information, call 769-5168.



**25 Christmas**  
The Museum is closed.

**26**

## Multicultural Programs

**Cross-Currents: Creating Cultural Bridges and Exchange**

The Education Department is presenting a series of multicultural programs based on the above theme that will take place in the Leonhardt People Center on the first three weekends of the month, from December 7 through December 21. Call (212) 769-5315 for information.

**27 Kwanzaa**

**12:00 noon to 6:00 p.m.** Kwanzaa Celebration. Hall of Ocean Life. Festivities include performances from the African diaspora and the re-creation of an African marketplace.

Ruth Antonette Foy



**December 1996**  
**American Museum of Natural History**



# ROTUNDA

For Family/Dual and Higher Members of the American Museum of Natural History

Vol. 22, No. 2 February 1997



Museum preparators Mike Russell (left) and Marco Hernandez at work on a diorama created for the exhibition. This diorama of two pandas in their native habitat illustrates the need to preserve and protect areas of adequate size to ensure species survival. Protecting habitat for "flagship" species like the panda benefits other plants and animals living in the same places.

The exhibition's itinerary culminates in a Resource Center. Computer stations will be set up to let visitors scan pertinent information on the Internet. The latest data on public policy, legislation, and recovery efforts by conservation groups will be available. Trained volunteers will staff the center and encourage visitors to find and use existing resources to further the cause of species and habitat preservation.

**See page 3 for more details on Endangered! and Museum-wide programs connected to it**

A guidebook available in English or Spanish features information on the status of forty species from more than two dozen different Museum dioramas, including the threats they face and plans to protect them.

Children attending the exhibition will receive a free poster, also in English or Spanish, designed to teach about the Endangered Species Act. On one side of the giant fold-out

## Focusing on a World at Risk

In March the Museum's third-floor Gallery 3 will open its doors to a challenging exhibition that takes visitors on a journey through species extinction and habitat loss, vividly portraying a "world at risk." The exhibition will also offer visitors the kind of informational tools needed to do something about it.

Historically, species extinction has occurred as part of the natural process

prevention of future species loss. *Endangered! Exploring a World at Risk* explores these critical areas through newly designed, open dioramas, specimens from the Museum's collections, and live animals from various Species Survival Plans coordinated by the Bronx Zoo. Imperiled species from the United States and abroad are highlighted, as well as the introduction of

endangered species, the Meeps Island flying frog, unfolds through slide projection and audio effects. Next, a Time Line illustrates conservation efforts for a range of species, mainly from the United States, and a display on highly endangered species focuses on Siberian tigers.

poster is a coloring-book-style story in which children can follow the legend of the Meeps Island flying frog to the brink of extinction and back. On the other side is a board game called "The Perilous Path," which guides players along the paths of animals that are endangered or threatened.

**Endangered! Exploring a World at Risk opens March 8 and will be on view until September 1, 1997**

of evolution; however, since the sixteenth century, the rate of extinction of plants and animals has grown alarmingly as a result of human activities. Because the majority of the world's natural ecosystems are now changing faster than the ability of most flora and fauna to adapt, scientists estimate that within the next decade the number of species to go extinct may number in the hundreds of thousands.

This special exhibition examines the causes and effects of species endangerment and extinction and explains the issues surrounding the

non-native species, the commercial exploitation of plants and animals, and the destruction of natural habitats.

After passing through zones devoted to explaining Overexploitation, Loss of Habitat, and Introduced Species — where the VW bug that was lowered into Lake Erie will be on display with its new coating of zebra mussels (see *Rotundo*, July/August 1996) — visitors will enter an enclosed space with a video theater, artwork, and cases containing specimens of animals that will never be seen alive again. The next stop is an Object Theater, where the story of a hypothetical



(clockwise, from top) A crocodile-skin flask, lighter, and hikiwell; a snakeskin letter opener; a crocodile-skin cigar case; and a rhinoceros-foot ashtray (from the collection of the Cleveland Museum of Natural History), which serve as examples of the extent to which animals have been exploited in the past. (These items, except for the rhinoceros-foot ashtray, were either loaned or donated to the Museum by the U.S. Fish and Wildlife Service for the purposes of educating the public about importing and exporting wildlife species.)



# Second Notice

The following programs were announced in last month's issue of *Rotunda*. Unless otherwise noted, a limited number of tickets are still available. For detailed information on these listings, see the January issue of *Rotunda*. These programs are open only to Family/Dual or Higher Members unless separate prices are specified.

## Hands-on Geology Tues., Feb. 4 and Tues., Feb. 11

A two-part workshop, consisting of demonstrations and hands-on projects illustrating some of the principles and processes of geology. Conducted by Sidney Horenstein. Time: 6:30-8:30 p.m. \$40; open to Family/Dual and Higher Members only. Program Code: MM1-02



Don't miss the chance to simulate volcanic eruptions with Sid Horenstein.

## The Physics of Star Trek Thursday, Feb. 13

### Canceled

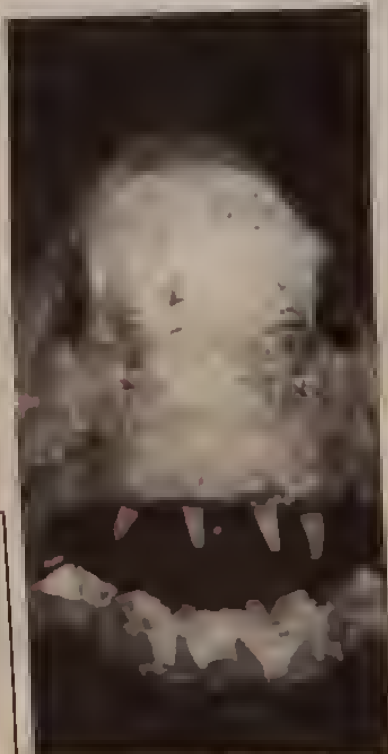
We regret that the multimedia lecture by Lawrence Krauss has been canceled.

## "When the Moon Hits Your Eye ..." Fri., Feb. 14

Museum hall tour tracing the history of Valentine's Day. Guide, Robert Campanile. Time: 6:30 p.m. Free and open only to Family/Dual and Higher Members. Because of limited space, tickets are available by mail only. Program Code: MM3-02

## Winter Workshops for Young Members Feb. 18, 19, 20

Three school-break workshops, on different themes, offering "facts and crafts." Conducted by June Myles. Two sessions for each workshop: 10:30 a.m.-noon or 1:30-3:00 p.m. Appropriate for ages 5-9. \$18 per workshop, and open only to Family/Dual and Higher Members. Program Codes: MM4A-02, 4B-02, or 4C-02



Bring your children to the Museum for their school break and join our "Ferocious Fish" workshop.



Karl F. Koopman, Mammalogy Dept. curator emeritus

## Members' Behind-the-Scenes Tours Thurs., Feb. 20 and Sat., Feb. 22

Special guided tours of the Mammalogy Department conducted by staff-member guides. Choose from five departure time slots in the morning, afternoon, or evening. For more details, see the January issue of *Rotunda*, or call the Membership Office at (212) 769-5606. \$14 and open only to Family/Dual and Higher Members. Program Codes MM5A, 5B, 5C, or 5D-02.

Make your reservations by phone (769-5200) with your Visa, Master Card, or American Express credit cards, or use the Central Reservations Coupon on page 9. Be sure to include the program code number in your call or coupon reservation.

# Guns, Germs, and Steel: The Fates of Human Societies

Tuesday, March 4  
7:00 p.m.

Kaufmann Theater

\$6 for Members; \$9 for non-Members  
Program Code: MM2-03

Jared Diamond returns to the Museum to present a lecture lavishly illustrated with slides and centering on his last book, *Guns, Germs, and Steel: The Fates of Human Societies* (W.W. Norton, 1996), an account of the rise of civilization and a convincing argument against cultural differences based on race. It addresses one of the biggest questions of human history, one that the author maintains is usually answered in racist terms: Why did Eurasian peoples colonize the Americas, Africa, and Australia?

The book shows that until around 11,000 B.C., all peoples were Stone Age hunter-gatherers. From then on, a great divide arose in the rate of change among human societies. In Eurasia, parts of the Americas, and Africa, prehistoric planters and herders domesticated indigenous wild plants and animals, and farming became the prevailing mode of existence. Diamond proposes that the very people who gained a head start in producing food collided with preliterate cultures, shaping the modern world through conquest, displacement, and genocide.

He assembles evidence linking germs to domestication of animals, germs that Eurasians then spread in epidemic proportions in their voyages of discovery. In its sweep, Diamond's new book



Jared Diamond

encompasses the rise of agriculture, technology, writing, government, and religion, providing a unifying theory of human history as intriguing as the histories of dinosaurs and glaciers.

Diamond, a professor of physiology at UCLA Medical School, is a journalist and author, a regular contributor to both *Natural History* and *Discover* magazines.

His book *The Third Chimpanzee* (HarperCollins, 1991) was awarded the 1992 Los Angeles Times Science Book Award. Copies of his new book will be available for purchase and signing the evening of the lecture.

## Members' Museum Hall Tour

## Eggciting Eggxhibits

Friday, March 28  
6:30 p.m.

Free, and open to  
Family/Dual and Higher  
Members only  
Program Code: MM8-03

Ex ovo omnia — everything comes from the egg. The egg has always been a symbol of rebirth, as evidenced by the custom of decorating and exchanging eggs on Easter. It has been a springtime custom in many countries for centuries,



linking traditional ideas of the rebirth of nature after the dead of winter to the Christian belief in the rebirth of the saviour. The egg is one of nature's more incredible inventions, and the story of eggs leads to some strange areas of natural history.

Join Robert Campanile in a "hunt" for the many "eggciting" eggs within our many "eggxhibits." Registration for this popular tour is by mail only. Fill out the coupon on page 9, and don't forget to include the program code.

# ROTUNDA

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**Special Slide-Lecture  
on Award-Winning Book of Photographs**

## Hot Spots: America's Volcanic Landscape

**Tuesday, March 11**

**7:00 p.m.**

**Kaufmann Theater**

**\$6 for Members; \$9 for non-Members**

**Program Code: MM3-03**



**Fishing Cone,  
Yellowstone  
National Park,  
Wyoming, 1990.**

*This thermal  
cone received its  
name from early  
explorers who  
caught their fish  
in Yellowstone  
Lake, then tossed  
the fish, while  
still on the line,  
into the "fishing  
cone" to simmer  
their catch.*



Diane Cook and Len Jenshel will present a slide-illustrated lecture based on their new book, *Hot Spots: America's Volcanic Landscape* (Boston: Bulfinch Press/Little Brown, 1996), which documents some of this country's unique areas of volcanic activity.

Over a period of five years, Cook, a noted black-and-white landscape photographer, and Jenshel, one of America's foremost color photographers, trav-

eled throughout the West, as well as Alaska and Hawaii, shooting active and dormant volcanoes, geyser basins, and other volcanic phenomena.

The authors will discuss the geological as well as the mythological importance of the sites where they worked. They will also share with their audience some of the techniques they used to capture their images of these awe-inspiring places.

Jenshel's previous books in-

clude *Travels in the American West* and *Charmed Places*. Both Jenshel's and Cook's work has been widely exhibited in museums and galleries throughout the United States.

Their book *Hot Spots*, a celebration of nature at its most violent and beautiful, is the winner of the 1996 Ernst Haas/Golden Light Award for best landscape photography. The book will be available for purchase and signing the evening of the lecture.

### Members' Molding and Casting Workshop

## Endangered Species — Creating a Sculptural Record

**Saturday, March 15**

**10:00 a.m.-1:00 p.m.**

**Blum Lecture Room**

**Appropriate for ages 16 and up**

**\$40 for Members; \$50 for non-Members**

**Program Code: MM4-03**

With the new Museum exhibition *Endangered! Exploring a World at Risk* underway, Members can enhance their visit to the exhibits in Gallery 3 with a hands-on project. Pamela Popeson, a past director of Fossil Reproductions at the Museum, will conduct a workshop in which participants create a sculptural record related to endangered and extinct species.

In this program, members will learn to make a mold and produce casts

while creating a 3-D collage using feathers and bones, skin impressions, and myriad found and cast parts and pieces.

Popeson has been molding and casting artifacts and art objects for over eighteen years. She has recently returned from Ecuador, where she taught a Molding and Casting for Restoration and Conservation workshop, and she also teaches art to children of all ages.



On entering Gallery 3, visitors can stop at a movie theater to view a series of special ten-minute videos. Nearby, in the Overexploitation area, are exhibits that illustrate the extent to which animals have been commercially exploited — a nineteenth-century parlor and a fashion boutique from the twentieth century displaying goods made from animal parts, and a contemporary shop featuring medicines derived from animal parts. Above: Items made of endangered animal parts, including sea turtle soup and traditional Asian medicines made of tiger bone and rhinoceros horn. Below right: an example of a contemporary netsuke, a small Japanese figurine carved from ivory. (These items were either loaned or donated to the Museum by the U.S. Fish and Wildlife Service for the purposes of educating the public about importing and exporting wildlife species.)

### New Date for:

## Members' Private Preview Party

### Endangered! Exploring a World at Risk

**Friday, March 7**

**4:00-9:00 p.m.**

Family/Dual and Higher Members are invited to preview the exhibition *Endangered!* from 4:00 to 9:00 p.m. on the Friday before it opens to the public. No tickets or reservations are

necessary. Your valid membership card is your ticket of admission.

A cash bar will be available for your enjoyment in the adjacent Hall of Reptiles from 5:30 to 8:30 p.m.

## Special Volunteer Call

The temporary exhibition *Endangered!* will be on display from March through September 1997, and the Volunteer Office needs extra helpers to staff the Resource Center located there.

Responsibilities will include assisting visitors as they explore the Internet offerings on specially set up computers. Volunteers will also help visi-

tors use the reference materials provided and distribute free written information on how each of us can help in the campaign to save our species and our environment.

There are shifts to fit almost any schedule. Training begins in February. If you wish to join us, please contact the Volunteer Office at (212) 769-5566 for an application.

## Audio Expedition

The Museum's *Audio Expedition* tour has a special section in the beginning — narrated in English by the actress Susan Sarandon — to help visitors explore the *Endangered!* exhibition. In addition, it will carry a detailed guide to a selection of forty threatened, endangered, or

extinct species. It is available, like the guidebook, in both English and Spanish versions.

Visitors can use the state-of-the-art, random-access CD player to tailor individual tours of varying lengths, enabling them to go in any direction. *Audio Expedition* is available for a separate fee.





# Wandering Dragons: The Dinosaurs of Canada and China

Wednesday, March 26  
7:00 p.m.  
Kaufmann Theater  
\$8 for Members; \$12 for non-Members  
Program Code: MM7-03



Philip J. Currie collecting dinosaur eggs on Green Dragon Hill, Hubei, China.

Did dinosaurs of the Cretaceous era move freely between North America, the Arctic Circle, and China? Join Philip J. Currie from the Royal Tyrrell Museum of Palaeontology in Alberta, Canada, for a slide-illustrated lecture that tells the fascinating tale of the Canada-China Dinosaur Project, a joint collaboration between multidisciplinary teams of experts from both countries. The Project allowed scientists to directly compare specimens and the sites where they are found.

Striking similarities have long been noticed in Late Cretaceous dinosaur faunas across the northern hemisphere. Asia and North America were connected within the Arctic Circle at various times during the Cretaceous. In North America the evidence suggests that some species of dinosaurs were migrating annually, spending their winters in Alberta and Montana and moving north in great herds every spring to live off the highly nutritious plants of the arctic summer. When winter came to the ar-



Currie at work excavating the skull of one of the most complete ornithomimids known.

ctic, however, bringing up to twenty-four hours of darkness each day, the plants would stop growing and most would lose their leaves. The migrating dinosaurs would then turn south again and, scientists believe, the journey would take some of them into China and others into North America, depending on which side of the land bridge they found themselves on.

The results of five years of expeditions to China, Alberta, and the Canadian high arctic have unearthed new evidence of links between North America and Asia. The expeditions also brought to light many new species of dinosaurs and indications of their variations, distribution, herding behavior, and migrations. More than sixty tons of specimens were collected in China alone, ranging in size from an embryonic *Protoceratops* to the largest known

Asian sauropod. The fame of the Canada-China Dinosaur Project expeditions has been celebrated in popular books, magazine articles, and film. One of the most extensive traveling dinosaur displays ever assembled, organized by the Ex Terra Foundation in Edmonton and based on this famous project, has already toured Canada, Australia, Japan, and Singapore.

Currie is Curator of Dinosaurs at the Royal Tyrrell Museum, co-leader of the Dinosaur Project, and the author of five books and more than fifty scientific articles in his field. In his lecture, he will also talk about specific discoveries of dinosaur eggs and embryos in different parts of China — information that appeared in an article in the May 1996 issue of *National Geographic* — as well as about the spectacular new discovery of a dinosaur with "feathers."

# A Historic Look at Building Stones

Tuesday, March 18  
7:00 p.m.  
Kaufmann Theater  
\$6 for Members; \$9 for non-Members  
Program Code: MM5-03

Geologist Sidney Horenstein will offer a slide-illustrated look at building stones from their first recorded use — by Egyptians, Romans, Inca, and others — to the present. He'll discuss quarrying methods and the tools used for shaping and decoration. Most geographic areas are endowed with a variety of stone types, and Horenstein will examine how the properties of avail-

able stone influenced architectural styles in specific locations.

Building stones, but more particularly those used in the construction of the Museum's own vast network of interlocking structures, will be the subject of *The Museum — Inside and Out* tour, which Horenstein will lead later on in March. See story below for details.



The strata of Tilgote Forest

## Members' Walking Tour

# The Museum — Inside and Out

Friday, March 21  
Three sessions: 4:30, 6:00, and 7:30 p.m.  
\$15, and open only to Family/Dual and Higher Members  
Program Code: MM6-03

Members can hear all about the natural history of the Museum at special tours that explore its inside and outside areas. Sidney Horenstein, the coordinator of Environmental Public Programs, will lead a fascinating walk around this celebrated landmark and talk about its construction.

Participants will step outside for an overview of the Museum's geology, geography, and varieties of architectural style. Back inside, they'll survey the diversity of stones used in the building's construction and hear about

the geological history the stones reveal. They'll also inspect the fossils that are trapped in the very walls.

Members can combine this tour with a slide-illustrated talk by Horenstein on March 18 that more closely examines building stones from historical, geological, and aesthetic perspectives. See story above for details.

Prompt registration is advised for the limited number of places available. Please indicate in your telephone or coupon reservation a first and second choice of tour session.



At work on a new wing of the Museum



# Spring 1997 Education Department Programs

Make your reservations by calling (212) 769-5200 with your credit card number or filling out the Central Reservations Coupon on page 9, under the Education Department heading. Be sure to include the program code in your telephone or coupon reservation. Please note that Members' prices also apply to students and senior citizens and that there is no discount for workshops, walking tours, or field trips.

## Evening Lecture Series

**Religion on the  
Edge of the Millennium**  
4 Wednesdays, starting March 5  
7:00-8:30 p.m.  
\$25; \$22.50 for Members  
Program Code: ED97206L

Korean shamans, voodoo in Haiti, a new religion in Trinidad, and New Age in the United States are the topics to be discussed in this four-part lecture series. The talks will address issues affecting, and affected by, religion in contemporary communities of complex societies.

Belief systems and practices do not exist in a vacuum; they are influenced by economic and political conditions, react to change in the social order, and, because of the phenomenon of migration, they precipitate changes in the world around them. This is a somewhat nontraditional, anthropological look at contemporary religious beliefs as we stand on the brink of the next millennium.

**Origin of Species Revisited**  
Tuesday, April 15  
7:00-8:30 p.m.  
\$15; \$13.50 for Members  
Program Code: ED97203L

In the Linnaean Society of London's delightful play *Charles Darwin and Alfred Russel Wallace*, the co-discoverers of the theory of evolution by natural selection speak about their lives and thoughts.

In this production, offered one time only to New York audiences, Richard Milner, editor of the *Encyclopedia of Evolution* and an editor at *Natural History* magazine, impersonates Darwin, and Gareth Nelson, from the Museum's Ichthyology Department, represents Wallace. While Wallace recalls fascinating, little-known details of his life, Darwin goes on to offer his views on today's scientific and social developments. Acclaimed for its scholarly accuracy as well as its entertainment value, this program was a hit at last year's Edinburgh Science Festival.

**Keeping Houses in a  
Changing World: Shells,  
Museums, and Economics**  
Tuesday, April 29  
7:00-8:30 p.m.  
\$10; \$9 for Members  
Program Code: ED97209L



Terns at Great Gull Island, New York

Evolutionary biologist Geerat Vermeij is the world's leading authority on the ancient "arms race" among mollusks. In this lecture, he will expand on the reasons that make shells more than just elegant pieces of sculptural architecture. Their makers live and evolve in a world of competitors and predators, of success and failure, of limitations and opportunities. These factors, together with genealogy, define their characteristics.

By analyzing the shells of both living and fossil mollusks as functional objects, and by deciphering the chronicles written into them by growth increments, we can reconstruct their daily lives and the unusual events in their history and gain an appreciation for the circumstances governing evolution. Museum collections offer irreplaceable materials for such historical studies, which can help us understand our own economic situation and future.

Vermeij is a professor at the University of California, Davis, and editor of *Evolution*, a journal of natural history. Copies of his recently published book, *Privileged Hands: A Scientific Life*, will be available for purchase and signing after the lecture.

**Endangered!**  
**Exploring a World at Risk**  
Four Wednesdays, April 16 to May 7  
7:00-8:30 p.m.  
\$30; \$27 for Members  
Program Code: ED97215L

In conjunction with the Museum's new exhibition, *Endangered! Exploring a World at Risk*, scheduled to open on March 1, this four-part lecture series examines the major causes of species extinction and its effects on humans and the planet as a whole. Four scientists will present slide-illustrated talks examining the major topics of habitat loss, introduction of exotic species, and overexploitation. Efforts aimed at conservation, legal protection, captive breeding, reintroduction of species, and other recovery techniques will be discussed. For additional information, call (212) 769-5310.

## Field Trips and Walking Tours

**Nature's Book ...  
Seldom Read**  
4 Fridays, March 7, 14, 21,  
and April 4  
6:30-8:00 p.m. \$25  
Enrollment limited to 25  
Program Code: ED97308X

"In nature's infinite book of secrecy, a little I am read," wrote William Shakespeare, and the message of this program is that humanity's well-being and ultimate survival are inexorably linked to what we can discover about our environment and the diversity of life it encompasses.

All of the Museum's dioramas represent real environments of animal and plant life depicted at specific moments in time. In many cases these environments have now vanished, and much of the animal populations and plant life that once thrived in them have been lost to extensive human exploitation. They remind us of what was, what is, and most importantly, what may be.

This lecture series and gallery tour is given by Robert Campanile, Museum docent and tour guide, and each one centers around a specific environmental theme: rain forests and wetlands; deserts and grasslands; mountains; and oceans, islands, and Antarctica.

## Urban Forest Walking Tours with William Schiller

About one quarter of the New York City metropolitan area is parkland, much of it with a remarkable diversity of tree cover and associated wildflowers. William Schiller, senior lecturer in botany for the Museum's Education Department, has spent a lifetime exploring woodlands at the north end of the city. After a quick trip by rail or bus to some of the best woodland areas in New York, participants will learn about plant identification and ecology. Registrants will receive information on the location of the starting point for each tour.

**Price: \$10 per tour**  
**Limited to 25 per tour**  
Program codes indicated below for all tour dates. Please be sure to include the code for the tour of your choice in your phone or coupon reservation

**Spring Flowers and  
Trees in Central Park**  
Wednesday, April 16  
8:30-10:30 a.m.  
Program Code: ED97311X  
or Saturday, April 26  
9:00-11:00 a.m.  
Program Code: ED97312X  
or Saturday, May 3  
9:00-11:00 a.m.  
Program Code: ED97313X

This is an exploration of the Shake-

spare Garden, Hemshead, and Strawberry Fields areas, with a look at how they change with the season.

**Northeast Forest,  
Van Cortlandt Park**  
Wednesday, April 30  
9:30 a.m.-12:30 p.m.  
Program Code: ED97315X

Luxuriant woodland surrounds small hidden wetlands in this northeast corner of the park. Some of the best springtime wildflower areas are here, including patches of spring ephemerals.

**Central Woodland,  
Pelham Bay Park**  
Wednesday, May 7  
9:30 a.m.-12:30 p.m.  
Program Code: ED97316X

This park is New York City's largest green space, encompassing some 2,764 acres. Woodland bordered by picturesque salt marsh provides an opportunity to explore vegetation in marine environments

**Palisades National  
Natural Landmark**  
Wednesday, May 14  
9:30 a.m.-12:30 p.m.  
Program Code: ED97317X

Wooded cliffs, flowers, and scenic views are the hallmarks of this park in Alpine, New Jersey. A moderately strenuous hike to the cliff top and a botany walk of approximately four miles to the highest point on the escarpment are planned on a section of the Long Path National Recreation Trail.

## Free Programs

**World Drumming**  
Lecture, Demonstration, Performance  
Wednesdays, April 2, 9, and 16  
7:30 p.m.  
Main Auditorium  
Sunday, April 20  
12:00-5:00 p.m.  
Hall of Ocean Life  
(Dates subject to change)

World drumming traditions will be celebrated at the Museum through a series of lectures, demonstrations, and performances presented by musicologists and world-class musicians. Ex-

(continued on page 6)



(continued from page 5)

perts from academia will examine the use of the drum in secular and religious events and investigate similarities and differences in drumming customs around the world, from traditional to contemporary societies. The series will culminate with a day-long drumming festival in the Hall of Ocean Life, where different drumming ensembles will be juxtaposed to celebrate the diversity of world drumming.

To receive flyers with detailed information on this and other free programs, please call the Education Department at (212) 769-5315.

## Second Notice

### Sex and the Origins of Death

Monday, February 3  
7:00-8:30 p.m.  
\$10; \$9 for Members  
Program Code: ED97201L

William R. Clark, professor of immunology and chair of the Department of Molecular, Cell, and Developmental Biology at UCLA, looks at life and death at the level of the cell to address questions such as why we age, why death exists, and why death and sex go together.

### Early Christian Secrets: James, the Brother of Jesus

Monday, February 24  
7:00-8:30 p.m.  
\$10; \$9 for Members  
Program Code: ED97204L

In his new book *James the Brother of Jesus*, Robert Eisenman, co-author of *The Dead Sea Scrolls Uncovered*, explores an almost entirely marginalized figure from the Bible. Eisenman discusses what made James, and not Peter, the true successor to Christianity. He is professor of Middle East religions and director of the Institute for the Study of Judeo-Christian Origins at California State University.



Drawing by Louis Agassiz Fierres

Long Beach. His book will be available for purchase at the program, and Eisenman will sign copies at the talk's conclusion.

### Water: A Natural History

Tuesday, March 4  
7:00-8:30 p.m.  
\$10; \$9 for Members  
Program Code: ED97205L

Alice Outwater is an environmental engineer. In this slide-illustrated talk, based on her new book *Water: A Natural History*, she reviews our historical input into the native ways of water and reaches the conclusion that, with dwindling populations of prairie dogs and beavers — our natural "engineers" — both our land and our water have been degraded. The author will be available to sign copies of her book after the lecture.

### Two Talks With Edwin Bernbaum

Mount Athos:  
The Holy Mountain  
Monday, March 10  
7:00-8:30 p.m.  
\$10; \$9 for Members  
Program Code: ED97207L

Mount Athos, the home of twenty Byzantine monasteries, serves as the monastic center of Eastern Orthodox Christianity. Edwin Bernbaum, a mountaineer, scholar of comparative

religion and mythology, and author of *Sacred Mountains of the World*, will show how the sacred mount, because of its special religious status, has helped the peninsula to preserve a biodiversity found nowhere else in the Balkans.

### Hidden Myths of Modern Life

Wednesday, March 12  
7:00-8:30 p.m.  
\$10; \$9 for Members  
Program Code: ED97208L

The contemporary beliefs and assumptions that underlie almost every facet of modern life function for us in the same ways that myths do for people in traditional cultures. Elaborated in the form of stories, theories, and ideas, they shape the ways we think, feel, and perceive ourselves and the world around us. Bernbaum will discuss the different functions of myth to discover the insights they provide into comparable roles played by our own beliefs and assumptions.

### Plants of the Wetlands

Five Mondays, March 3-31  
2:30-4:00 p.m.  
Program Code: ED97213L  
or Five Thursdays, March 6-April 3  
7:00-8:30 p.m.  
\$35; \$31.50 for Members  
Program Code: ED97214L

The full value of wetlands is just beginning to be appreciated. New discoveries have increased our understanding of them, of their intricate biological interrelationships, and of their relation to other global ecosystems. This slide-illustrated series of lectures, presented by William Schiller, lecturer in botany in the Museum's Education Department, focuses on eastern North America. It explores the plant diversity of lake shores, floodplains, bogs, marshes, and seaside and focuses on what they reveal about how nature works.

### Identification Day

Saturday, April 26  
1:00-4:30 p.m.  
Hall of Ocean Life  
Free

What is it? Bring your shells, rocks, insects, feathers, bones, and artifacts for our twelfth annual Identification Day. A team of Museum scientists will attempt to identify your favorite garage-sale finds, curios from the basement, exotic souvenirs, and flea market discoveries of natural objects. Staff members will analyze and give information on the history and classification of all materials presented. Selected specimens from the Museum's collections will also be on display in the area on this day. Please note that no appraisals will be given, nor will the Museum identify gemstones.

### Animal Drawing

Eight Tuesdays, March 4-April 22  
7:00-9:00 p.m.  
\$125 (materials not included)  
Enrollment limited to 25  
Program Code: ED97300X

Join Museum artist Stephen C. Quinn to sketch subjects such as gazelles on the African plains or timber wolves in the snow. After Museum hours, students draw from the famed dioramas and from mounted skeletons in the Halls of African Mammals, North American Mammals, North American Birds, Ocean Life, and inside the newly opened fossil mammal halls. Quinn, senior assistant manager in the Exhibition Department, discusses drawing technique, animal anatomy, and the role of the artist at the Museum.

### Spring Bird Walks in Central Park

8 Tuesdays, April 1-May 27  
(excluding April 22)  
7:00-9:00 a.m.  
Program Code: ED97302X  
or 8 Wednesdays, April 2-May 21  
7:00-9:00 a.m.  
Program Code: ED97303X  
or 8 Thursdays, April 3-May 22  
9:00-11:00 a.m.  
Program Code: ED97304X  
\$50 per session  
Enrollment limited to 25

Observe the spring migration of birds in Central Park with naturalists Stephen C. Quinn (Tuesdays), Joseph DiCostanzo (Wednesdays), and Harold Feinberg (Thursdays). Learn how to use field marks, habitat, behavior, and song as aids in bird identification. You must register at least a week in advance for this series. Please note that walks start across the street from the Museum, on the northeast corner of Central Park West and 77th Street.

### Bird Identification for the Beginner

Saturday, May 3  
10:30 a.m.-3:00 p.m.  
\$40 (includes sandwich lunch)  
Enrollment limited to 25  
Program Code: ED97301X

This workshop helps novice birders learn techniques for bird identification, such as charting, recording, and observation. After viewing Museum specimens that represent birds in the New York area, the class moves to Central Park for practical experience in identifying birds. Joseph DiCostanzo, research assistant on the Great Gull Island (New York) Project and past president of the Linnaean Society, leads this program.

The above is a partial listing. To receive the full listing of the Education Department's Spring 1997 programs, please call (212) 769-5310



Red maple, The New York Botanical Garden



# Courses for Stargazers

While it is being reconstructed, the Planetarium will offer classes and lectures in Museum classrooms and auditoriums.

## Astronomy: Basic Courses

**Introduction to Astronomy**  
8 Mondays, beginning March 24  
6:30-8:40 p.m.  
\$95; \$85.50 for Members

This first course in astronomy introduces the universe to those with no mathematics or physics background. Topics include the earth as a planet, the moon, solar system, stars, Milky Way, galaxies, quasars, and black holes. The course explains common phenomena, such as planet motions, the rising and setting of the sun and moon, and so on. No previous knowledge of astronomy is assumed. This course serves as a prerequisite for intermediate-level courses in which specific areas are covered in more detail. Instructor: Craig Small  
**Program Code: HP4**

**Adventures in Astronomy**  
7 Saturdays, beginning March 29  
9:40-11:40 a.m.  
\$85; \$76.50 for Members

Confused about the difference between a star and a planet? Can't tell astronomy from astrology? Don't know Aquarius from Sagittarius or a black hole from a brown dwarf? Join this Saturday course for the whole family (recommended for ages ten and up) to explore the birth and death of stars, the origin of the universe, the search for extraterrestrial life, and the current night sky. Instructor: Craig Small  
**Program Code: HP7**

**How to Use a Telescope**  
8 Mondays, beginning March 24  
6:30-8:40 p.m.  
\$95; \$85.50 for Members

An introduction to choosing and using a small amateur telescope, this class covers the basic optics of telescopes, equatorial and altazimuth mountings, eyepieces, collimating a telescope, setting up for observation, locating objects in the sky, and using charts and other aids for observation. No previous knowledge of astronomy is assumed. This course is recommended both for those considering the purchase of a telescope and for those who have one but are not sure how to use it. Instructor: Samuel Storch  
**Program Code: HP11**

## Astronomy: Intermediate Courses

**Windows in the Sky:  
The Invisible Universe**  
6 Thursdays, beginning March 27  
6:30-8:40 p.m.  
\$70; \$63 for Members

Light is not a thing; it is a way in which things behave. Beyond what the human eye and modern optical telescopes can see lies a vast invisible universe. Today, with the aid of modern theories of cosmology, CCD-based computers, giant dish-shaped antennas, and Earth-orbiting satellites, astronomers and astrophysicists have the opportunity to see what the universe looks like at wavelengths far removed from ordinary visual light. Knowledge of both the visible and invisible components of space is necessary to determine the ultimate destiny of what we know as space and time. In this course, students explore the world of unseen energy and discuss its impor-

tance to astronomical observation as revealed by views of radio galaxies, pulsars, quasars, nebulae, star birth and death, and colliding and exploding galaxies. Instructor: William Dorsey  
**Program Code: HP15**

**The Life Cycle of Stars**  
6 Wednesdays, beginning March 26  
6:30-8:40 p.m.  
\$60; \$54 for Members

Two impressive aspects of stars are their visual impact on the observer and how they evolve over millions and billions of years. Stars are fragments of creation that follow prescribed life cycles from embryo to various terminal stages. This course traces the past and future histories of the sun and other stars found in the dust lanes and gas clouds of the Milky Way. It probes beneath the glowing exteriors of the stars to examine their energy-producing cores. All stars reach terminal stages and most, including the sun, end up as slow-cooling white dwarfs; others may become denser neutron stars. The course culminates with a discussion of the massive stars that become black holes, from which neither matter nor radiation can escape. Instructor: Sune Engelbrektson  
**Program Code: HP19**

**The New Solar System**  
8 Thursdays, beginning March 27  
6:30-8:40 p.m.  
\$95; \$85.50 for Members

Thanks to information supplied by spacecraft in the past decade, the planets have become exciting subjects for scientific study. This course introduces the planets both as parts of the entire solar system and as unique bodies. Their structure, composition, weather, rings, and satellite are among the topics included. Images from planetary spacecraft are used to complement the lectures and discussions. *Introduction to Astronomy* is a recommended prerequisite but the course is not required. Instructor: Francine Jackson  
**Program Code: HP21**

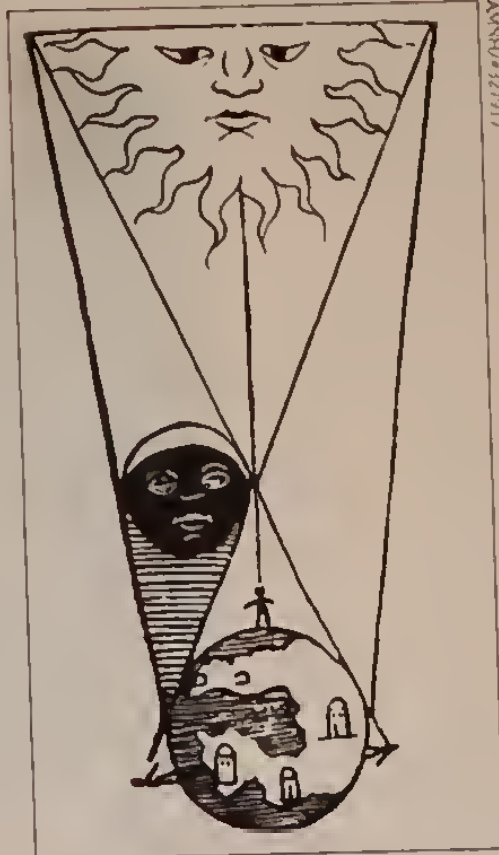
**From Copernicus to Einstein**  
7 Wednesdays, beginning March 26  
6:30-8:40 p.m.  
\$85; \$76.50 for Members

A survey of four of the great ideas that have brought about revolutionary changes in astronomy and physics. Explore Copernican astronomy, Galilean physics and astronomy, Newtonian physics, and Einstein's theory of the relativity of time and space. Students examine historic and schematic presentations of each theory for an understanding of how these profound ideas have affected our pursuit of knowledge about reality. No formal training in physics or math is required. Instructor: William Dorsey  
**Program Code: HP22**

## Meteorology

**Weather and Climate**  
8 Thursdays, beginning March 27  
6:30-8:40 p.m.  
\$95; \$85.50 for Members

Everyone talks about the weather. This course is for those who would like to know more about the atmosphere, including how it works and how it affects us. Topics covered include the structure, motions, and circulation of the atmosphere, as well as climate, clouds, and aspects of weather fore-



Ptolemy's conception of solar eclipse

casting. Students also learn about atmospheric optical phenomena such as rainbows, halos, and twinkling stars. No formal training in physics or mathematics is required. Instructor: Barry Grossman  
**Program Code: HP25**

## Aviation

**Ground School for Private and Commercial Pilots**  
15 twice-weekly sessions  
Tuesdays and Thursdays, beginning March 25 and 27  
6:30-9:00 p.m.  
\$200; \$180 for Members

This course primarily provides preparation for Private Pilot and Commercial Pilot FAA written examinations but can also help with Biennial Flight Review and aspects of flight training and aircraft ownership, along with fear of flying. Subjects include the latest airspace designations, physiological factors, pilot performance, visual and electronic navigation (VOR, ADF, DME, 5AT NAV, GR5, and LORAN), instruments, weather, communications, and so forth. Students plan cross-country trips and use the flight deck simulator. The instructor is FAA certified. Class meets twice a week, concurrently with *Ground School for Instrument Pilots*, and includes an optional trip to tower and center. Instructor: Ted Cone  
**Program Code: HP29**

**Ground School for Instrument Pilots**  
15 twice-weekly sessions  
Tuesdays and Thursdays, beginning March 25 and 27  
6:30-9:00 p.m.  
\$200; \$180 for Members

Intended primarily for those planning to take the FAA written examination for the instrument rating, this course also provides updated information for instrument competency check and familiarizes VFR pilots with instrument techniques. Subjects covered include electronic navigation, weather, radar procedures, use of specialized charts, enroute approach and departure procedures, and psychological factors. Included is extensive use of flight computers. Students also use the flight deck simulator. The instructor is FAA certified. Course meets twice a week, concurrently with *Ground School for Private and Commercial Pilots*, and includes an optional trip to tower and center plus additional specialized sessions. Instructor: Ted Cone  
**Program Code: HP31**

## Navigation: Basic Course

**Navigation in Coastal Waters**  
8 Tuesdays, beginning March 25  
6:30-8:40 p.m.  
\$110; \$99 for Members

This is an introduction to piloting and dead reckoning for present and prospective owners of small boats. The course provides practical chart work and includes such topics as compass bearings, fixes, buoys and light-houses, the running fix, current vectors and tides, and rules of the nautical road. Boating safety is emphasized. No prerequisites. Students are required to purchase an equipment kit. Instructor: Gregory Smith  
**Program Code: HP34**

## Navigation: Intermediate Courses

**Troubleshooting  
Celestial Navigation**  
4 Tuesdays, beginning March 25  
6:30-8:40 p.m.  
\$50; \$45 for Members

This short course is designed for students who are self-taught or merely familiar with techniques for navigating but need some practice to get jump-started. Sessions include a review of the basic theory of celestial navigation; use of *Volume I HO 249*, the *Rude Star Finder*, and the *Nautical Almanac* for pre-calculation of star sights; calculation of LAN and twilight for star sights; review of star sights, moon shots, planet shots, and plotting; and use of celestial computers, sextants, and shooting technique. Time is allotted to address the particular trouble spots that students have encountered. No text is required. Handouts will be provided. Instructor: David Berson  
**Program Code: HP39**

## Navigation: Advanced Course

**Advanced Celestial Navigation**  
8 Wednesdays, beginning March 26  
6:30-8:40 p.m.  
\$95; \$85.50 for Members

This course deals with topics in celestial navigation not covered in the introductory course, with additional practice problems for solution of celestial line of position; latitude by meridian transit of the sun and other celestial bodies; latitude by observation of Polaris; and computations of sunrise, sunset, moonrise, moonset, and twilight phenomena. Other subjects include star identification by altitude and azimuth methods; azimuth computations for determining compass error and deviation at sea, comparison of sight reduction tabular methods using marine navigation and air navigation tables; and sight reduction by formula methods. Prerequisite: *Introduction to Celestial Navigation* or equivalent experience accepted by the instructor. Students are required to purchase a copy of *The American Practical Navigator, Volume II*, by Bowditch, 1981 edition. Instructor: Gregory Smith  
**Program Code: HP40**

Please note that Members' prices also apply to senior citizens and students. You can register for these programs by filling out the Central Reservations Coupon on page 9, or by calling Central Reservations with your credit card number. Be sure to include the program code in your coupon or credit card reservation request. If you have any questions, call Central Reservations at (212) 769-5200.



# Members' Memo

## Planetarium News

### New Center for Earth and Space Underway

With the Planetarium & North Side Project, the Museum has entered one of the most exciting chapters in its long history of expansion and renovation. The Project, which includes the rebuilding of the Museum's Planetarium as part of the new Frederick Phineas and Sandra Priest Rose Center for Earth and Space, is dedicated to addressing the urgent need for science education among the American public. The Project also includes two new halls — the Hall of the Universe and the Hall of Planet Earth. In its entirety, the Project will transform the north side of the Museum. It is expected to be complete by the year 2000.

The new Planetarium will be located in a sphere — some ninety feet in diameter — which will appear to float inside a cubic, glass-walled enclosure. The sphere will house the most technologically advanced Sky Theater in the world, as well as a Big Bang Theater, which will present the events that occurred during the first three minutes of the existence of the universe. Above, below, and around the sphere will be new exhibits, including the Hall of the Universe, in which interactive technology and participatory displays will elucidate important principles of astronomy and astrophysics. A separate but adjoining Hall of Planet Earth, dedicated to exploring critical Earth processes and re-

vealing why there are oceans, continents, earthquakes, mountains, and volcanoes, will link the Planetarium to the Museum both intellectually and architecturally. The Hall of Planet Earth will lead visitors into the new Hall of Life's Diversity, scheduled for completion in 1998.

Thus together, the Center for Earth and Space and the Hall of Life's Diversity will provide a seamless educational experience, taking visitors from the beginnings of the universe to the formation of Earth to the extraordinary and irreplaceable diversity of life on our planet. As work proceeds, Members will be able to learn more about the new halls through stories and interviews in upcoming issues of *Rotunda*.

The Planetarium & North Side Project will also create new public spaces and much-needed visitor amenities and services, including a three-story parking garage with two below-ground floors; a public terrace on the roof level of the new garage, accessible from both Theodore Roosevelt Park and the Museum; a new neighborhood entrance to the Museum on Columbus Avenue; a new Planetarium Shop (replacing the existing one); and restaurant space.

As part of an independent effort to which the Museum is contributing, Theodore Roosevelt Park will be restored and enhanced.



### Opportunities to Learn about the Cosmos Continue

Although the Planetarium is now closed for construction, the Museum will continue to provide opportunities to learn about the universe.

The Planetarium's rich and varied array of courses on the cosmos will continue, with offerings for participants at all levels of knowledge. Topics include astronomy, navigation, meteorology, aviation, and even science fiction. For information on courses for spring 1997, please turn to page 7. For reservations, call (212) 769-5200.

**Geology of the Planets**, a six-part lecture series, takes participants on a tour of the planets and their salient features. Lectures are on January 14, 16, 21, 23, 28, and 30, from 7:00 to 8:30 p.m. Admission is \$35 for the series.

(\$31.50 for members); \$10 for a single lecture (\$9 members). Members' discounts will apply also to students and senior citizens.

**Life on Mars?** a special exhibition on view in the Arthur Ross Hall of Meteorites, includes samples of Martian meteorites along with information on how, when, and where they arrived on Earth. On display until May.

**The Moveable Museum**, which currently houses the exhibition *Earth to Space: Explorations*, visits schools and community centers in all five boroughs. This valuable resource, a recreational vehicle retrofitted to serve as an exhibition and teaching space, is used by tens of thousands of people in New York City every year.

*Earth to Space* is designed to educate the public about our understanding of the Earth and the space beyond its atmosphere and to reveal recent discoveries about our solar system.

**Live from Mars**, a program in which Neil Tyson, Frederick P. Rose Director of the Hayden Planetarium, will be a lead scientist in interpreting data for the public from the Mars Pathfinder mission, launched December 2 and scheduled to land on Mars in July.

He will participate in national broadcasts sent to schools, libraries, and other organizations to keep the public informed on the mission and its progress.

### Preservation Program Planned

The Museum is working with the firm of Higgins and Quasebarth, experts in preservation and rehabilitation, to undertake an inventory of important architectural features of the original Planetarium. The Museum has also created photographic documentation of the Planetarium's structure, collections, and exhibits, and will preserve the most important architectural elements of the existing building, such as window grillwork and lettering on the building's facade.

### Planetarium & North Side Project Newsletter

To receive a copy of the Planetarium & North Side Project Newsletter, published to provide information about issues related to the construction and ongoing scientific educational plans for the Project, please call Lisa Guggenheim at 212-769-5333.

### Members' Lounge Closed

In conjunction with ongoing construction of the Planetarium & North Side Project, the Members' Lounge will be closed until further notice.

## Frontiers in Astrophysics

The Planetarium continues to offer its outstanding series of lectures entitled *Frontiers in Astrophysics*, now held in the Museum's theaters.

The following is a list of the upcoming lectures in the series. Look for notice of these lectures on *Rotunda*'s calendar page each month.

**Probing Dark Matter with Cosmic Mirages**  
Thursday, February 6  
Anthony Tyson, Bell Laboratories/Lucent Technologies  
Program Code: HP108L

**Observing Globular Clusters with the Hubble Space Telescope**  
Monday, March 3  
Carlton Pryor, Department of Physics and Astronomy, Rutgers University  
Program Code: HP109L

**The Search for Intelligent Life in the Universe**  
Monday, April 7  
Jill Tarter, SETI Institute  
Program Code: HP110L

**Discovery of the Largest Galaxy in the Cosmos and Other Curiosities in the Distant Universe**  
Monday, May 5  
Juan Uson, National Radio Astronomy Observatory  
Program Code: HP111L

Tickets for the series of four lectures are \$25; \$22.50 for Members. Tickets for individual lectures are \$8; \$7 for Members. Discount also applies to students and senior citizens. Call (212) 769-5200 for ticket reservations or use the coupon on page 9.

Detailed announcements about course content, lecture themes, and reservation information can be found each month in the pages of *Rotunda*.



A rendering of the design for the American Museum of Natural History's new Planetarium & North Side Project, which is scheduled for completion by the year 2000.



Provide For Your Future. . .



. . . And Enrich The Lives Of Others.

Through a gift to the American Museum of Natural History that provides lifetime income, you promote preservation and extend understanding of the natural world for generations to come and, at the same time, provide for your own retirement. If you are age 55 or older, with a gift of \$5,000 or more you can:

- receive income for life, for yourself and/or a loved one;
- enjoy an immediate income tax deduction;
- minimize or eliminate capital gains tax when low-yield, highly appreciated stocks are sold to re-invest for higher income;
- reduce the cost — through the combined benefits of an income stream and an immediate income tax deduction — of a gift important to the Museum's future.

For more information, please call toll-free 1 (800) 453-5734 or complete and return this confidential reply form to Jane C. Palmer, Director of Planned Giving, Office of Development, American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192.

Please send me information on gifts that provide lifetime income, tax savings, and other benefits, while enriching the lives of others:

Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
Phone (home): \_\_\_\_\_ (office): \_\_\_\_\_

Tax and other financial benefits may depend on age.

My (our) age(s): \_\_\_\_\_, \_\_\_\_\_

Your reply is confidential and implies no obligation. 2/97

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## “Winter’s Night Dinner Deal”

*Baked Onion Soup*

*Roast Prime Rib of Beef*

*served with potato and vegetable:*

only \$**19**<sup>95</sup>

Hours:

*Lunch, Monday to Friday, 11:30 am to 3:30 pm*

*Lunch, Saturday and Sunday: 11 am to 4 pm*

*Dinner, Friday and Saturday: 5 pm to 7:30 pm*

For Reservations, call 212-769-5865



*Located on lower level  
next to DINER SAURUS*

## Central Reservations Coupon



**By Phone** Call (212) 769-5200 six days a week — Monday through Friday from 8:00 a.m. to 6:00 p.m. and Saturday from 10:00 a.m. to 6:00 p.m. Have your credit card and membership category ready when you call.



**By Mail** Send the registration form below to Central Reservations, American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192. Make checks payable to the American Museum of Natural History.

### Membership Programs

Program Title	Code	Date/Time
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

### Education Department

_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

### Hayden Planetarium

_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

# of Membership Reservations	# of non-Membership Reservations	Total Amount Enclosed
_____	_____	\$ _____
_____	_____	\$ _____
_____	_____	\$ _____
_____	_____	\$ _____
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**Total Amount Enclosed:** \$ \_\_\_\_\_

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Membership Category: \_\_\_\_\_

Phone (day): \_\_\_\_\_ (eve.): \_\_\_\_\_

Charge my: Amer. Ex. \_\_\_\_\_ Visa \_\_\_\_\_ Master Card \_\_\_\_\_

Card Number: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_

Signature: \_\_\_\_\_ Expiration Date: \_\_\_\_\_



## Spring 1997 Children's Workshops



### My First Nature Book

Ages 8-9  
Sunday, April 20  
10:30 a.m.-1:30 p.m.  
\$15  
Program Code: ED97401C

Children create storyboards about urban animals and their habitats and learn how to bind and make original accordion books. Presented by Bonita Grandal, teacher and facilitator for New York State Project Wild.

### Undersea Neighbors

Age 4  
(must be accompanied by an adult)  
Sunday, April 6  
10:30 a.m.-11:30 a.m.  
\$10  
Program Code: ED97402C

Using specimens to illustrate an interactive story, children will learn about marine animals. Song, dance, and a short film will also teach them about selected species. Included are a take-home art project and a visit to the Hall of Ocean Life. Presented by Dayna Reist, a teacher at Bank Street School for Children in Manhattan.

### A Child's Look at Wildflowers

Ages 8-9  
Sunday, April 13  
10:30 a.m.-1:30 p.m.  
\$15  
Program Code: ED97403C

Learn about the signs and lures plants use to accomplish pollination as well as the behind-the-scenes secrets of how artists and scientists re-create the plants and flowers in the Museum's famous hall exhibits. Children will view plants, flowers, and fossilized botany in Museum exhibits and use several methods to preserve flowers and create a field book. Presented by Amy O'Donnell, instructor, Education Department.

### Kitchen Chemistry

Ages 7-8  
Sunday, May 4  
10:30 a.m.-1:30 p.m.  
\$15  
Program Code: ED97404C

Children will experiment with many

different types of science. Some of the activities are making an exploding volcano, turning milk into glue, and making invisible ink from red cabbage. Presented by Jennifer Kahn, after-school program instructor at New York City P.S. 87.

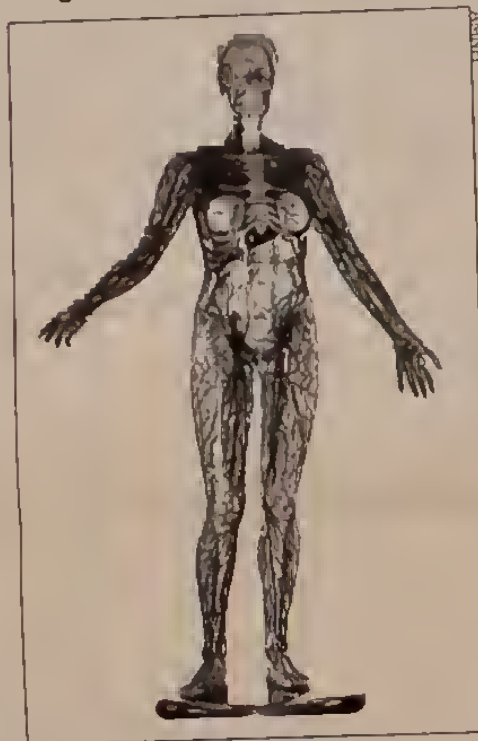
### A First Look at Chinese Brush Painting

Ages 9-10  
Sunday, April 13  
10:30 a.m.-1:30 p.m.  
\$15  
Program Code: ED97405C

Capture the spirit of nature with brush and ink. Children explore trees, plants, and rocks in the Museum's landscape paintings while learning the techniques and basics of Chinese calligraphy. Presented by Ross Lewis, an artist and children's art educator.

### Inside Your Body

Ages 7-8  
Sunday, May 18  
10:30 a.m.-1:30 p.m.  
\$15  
Program Code: ED97407C



What's beneath your skin? In this program, children discover what makes their bodies work as they listen to their heartbeat, examine X-rays, and investigate bones and muscles. A visit to the Hall of Biology and Human Evolution is included. Presented by Dina Cukier Schlesinger, computer and science teacher at P.S. 140, Manhattan.

### Wonderful Whales

Ages 8-9  
Sunday, May 18  
10:30 a.m.-1:30 p.m.  
\$15  
Program Code: ED97406C

Whales can approach 100 feet in length, weigh over 140 tons, and devour 8 tons of food a day. Children find out about the natural history of whales and why they are hunted. They also learn about these mammals through film, songs, games, and artifacts, and during a visit to the Museum's Hall of Ocean Life. Presented by Merryl Kafka, assistant director of education at the New York Aquarium for Wildlife Conservation.

### Drawing and Painting African Mammals

Ages 8-10  
Sunday, May 18  
10:30 a.m.-1:30 p.m.  
\$15  
Program Code: ED97408C

Children learn about pen-and-ink and contour drawing, as well as water-color techniques. They will observe basic mammal anatomy as they sketch in the Hall of African Mammals. Presented by Angela Tripi-Weiss, art director at P.S. 87, Manhattan.

Please note: Children should bring a bag lunch for the three-hour programs.



Paul E. Thomas

### Members' Children's Program

## Huggable Environments: Mr. Huggy and His Huggable Puppets

Sunday, March 2  
Two shows: 11:00 a.m. and 1:00 p.m.  
Blum Lecture Room  
\$10 for Members' children; \$15 for non-Members  
Appropriate for ages 3-7  
Program Code: MM1-03

Children are cordially invited to join Paul Thomas — also known as "Mr. Huggy" — for an entertaining puppet show that combines make-believe antics with important messages about self-love and love of the environment. Thomas uses the Huggable Environments (the name of his former puppet and stuffed animal shop in Guilford, Connecticut) created by his puppets to convey information and understanding about many creatures with whom we share the earth. His puppets teach that all living things are interconnected and interdependent.

Mr. Huggy invites members of his audience on stage to join him in working with some of the puppets. With the assistance of a snowy owl, he encourages the children to question their animal friends: Can an owl really turn its

head all the way around backward? Why does a cobra blow up its cheeks? His harmonica-playing sidekick, Goody Bear, reminds the audience that recycling is good for the environment. His troupe, numbering over thirty characters, includes bald eagles whose friends have died from pollutants, a wolf whose image is being rehabilitated through conservation efforts, and a moose and cow who sing opera.

Thomas, a retired attorney who spent most of his career in New York State government, began his unique performances over a decade ago and has since played to over twelve hundred audiences, primarily in New York State and around the New England area. He has also taken his huggable puppets to London, Moscow, St. Petersburg, Baku, and Prague.



# Museum Notes

**Hours**  
Exhibition Halls  
Mon.-Thurs. & Sun. ....10:00 a.m.-5:45 p.m.  
Fri. & Sat. ....10:00 a.m.-8:45 p.m.  
The Museum Shop  
Mon.-Thurs. & Sun. ....10:00 a.m.-5:45 p.m.  
Fri. & Sat. ....10:00 a.m.-7:45 p.m.  
The Junior Shop  
Mon.-Fri. ....10:00 a.m.-4:45 p.m.  
Sat. & Sun. ....10:00 a.m.-5:45 p.m.  
The Museum Library  
Tues.-Fri. ....11:00 a.m.-4:00 p.m.

**The Natural Science Center**  
There are many wild places in the New York City area, and the Center features these habitats' plants and live animals. Closed holidays.  
Tues.-Fri. .... 2:00-4:30 p.m.  
Sat. & Sun. .... 1:00-4:30 p.m.  
Thursday Storytelling. .... 3:00 p.m.

**Museum Dining**  
**Diner Saurus Fast Service Eatery**  
Daily ....11:00 a.m.-4:45 p.m.  
**Garden Cafe**  
Reservations: (212) 769-5865  
Lunch: Mon.-Fri. ....11:30 a.m.-3:30 p.m.  
Dinner: Fri. & Sat. ....5:00-7:30 p.m.  
Lunch: Sat. & Sun. ....11:00 a.m.-4:00 p.m.  
**Whale's Lair**  
Fri. ....3:00-7:30 p.m.  
Sat. ....Noon-7:30 p.m.  
Sun. & most holidays ....Noon-4:00 p.m.  
**Snack Carts**  
Sat. & Sun. ....11:00 a.m.-4:00 p.m.

# List of Exhibits

Exhibit	Location	On View Until
<b>Purposeful Traveler: Titian Romsey Peole</b>	Library Gallery, 4th floor	2/1/97
<b>Life on Mars?</b>	Hall of Meteorites	5/1/97

**Hall Closings:** The Biology of Birds Hall is closed indefinitely; Gallery 77 is closed for structural repairs.

**Entrances**  
During Museum hours visitors can enter the building through the 77th Street entrance, the Planetarium entrance (81st Street), the first- and second-floor Roosevelt Memorial Hall entrances (79th Street and Central Park West), or through the subway entrance. **Visitors attending programs after hours can enter the building at 79th Street and Central Park West or through the parking lot at 81st Street.**

**Phone Numbers**  
Museum information ....(212) 769-5100  
Planetarium information ....(212) 769-5900  
Education Department ....(212) 769-5310  
Discovery Tours ....(212) 769-5700  
.....toll-free outside NY State: (800) 462-8687  
IMAX<sup>®</sup> ....(212) 769-5034

Development ....(212) 769-5151  
Communications ....(212) 769-5800  
Volunteer Office ....(212) 769-5566  
Museum Shop ....(212) 769-5150  
Library Services ....(212) 769-5400  
Natural History magazine ....(212) 769-5500  
Membership Office ....(212) 769-5606  
Members' Birthday Parties ....(212) 769-5542  
Planned Giving Office ....(212) 769-5119  
.....toll-free outside NY State: (800) 453-5734  
Central Reservations ....(212) 769-5200  
World Wide Web Site ....http://www.amnh.org

**Parking:** Paid parking is available for those attending Museum programs. The parking lot is open daily, 7:00 a.m.-11:30 p.m. For parking rates, call (212) 769-5238. Call the Membership Office at 769-5606 for information about alternative parking.

## Exhibit of the Month

### For the Love of Snuff

With the increased use of tobacco during the Ch'ing, or Manchu, dynasty (1644-1912), snuff bottles — designed to store a powdered tobacco usually inhaled through the nose — became fashionable and were in great demand. Each bottle was topped with a tight stopper to which a tiny spoon was attached. Sometimes shaped like a little hand, the spoon was used to transfer a bit of snuff to the thumbnail, and from there it was inhaled.

Chinese emperor K'ang Hsi (reigned 1662-1722), a devoted patron of the arts, established dozens of imperial workshops employing expert craftsmen who produced many of the finest snuff bottles in existence from a variety of materials: jade, quartz, wood, amber, porcelain, ivory, brass, horn, glass, enamel, and nephrite. Several craftsmen would work together for many hours to create each bottle. One would cut blocks of stone into workable pieces, another would paint or carve the bottle's exterior, another would hollow out the inside using a tiny, hand-powered drill, and finally, another worker would polish it. Each individual bottle took many hours to create.

As a general rule, the thinner the walls of the bottle, the more highly it is prized, not only because of the greater time it took to make, but also because the bottle itself is lighter to carry. Since traditional Chinese clothing did not have pockets, the snuff-filled bottles were carried in the sleeves.

In spite of opposition in China as well as Europe, the use of snuff became a social ritual. It was not uncommon for two Chinese friends to meet, exchange snuff, and show each other their beautiful snuff bottles. The Museum's collection of these prized objects is on display in the case entitled "Traditional China: Crafts," located in the second-floor Hall of Asian Peoples.

-Erica Okone



A Chinese snuff bottle of glass, elaborately painted on the inside surface (from the Drummond Collection)

## Children's Birthday Parties at the Museum



Skeleton of *Megaloceras giganteus*, the "Irish elk"  
— Members' children can choose a "Fossil Mammals Party," which introduces them to their fossilized mammalian ancestors.

Select one of our extraordinary party themes, all of them combining two hours of learning and fun in the endlessly fascinating environment of the Museum. Children can take the Safari Party through Africa, discover the wonders of prehistory at the ever-popular Dinosaur Party, track the cultures of Native Americans at the Plains Indians Party, or choose from four other exciting party themes.

These parties are limited to Members at the Contributor level and above. The size of the group is restricted to a minimum of ten and a maximum of twenty. The cost is \$750 for groups of from ten to fifteen children and \$850 for groups of from sixteen to twenty. This fee covers all materials and the services of Museum staff and party coordinators, who customize every party to suit the individual needs of the birthday child and family. We handle all the details — from candles to party favors. Parents need only bring the cake.

For more details and to find out how to reserve a time and place for your child's birthday party, please call the Membership Office at (212) 769-5542, fax us at (212) 769-5427, or write to: Members' Birthdays, Membership Office, American Museum of Natural History, Central Park West at 79th St., New York, New York 10024-5192

The Membership Office would like to thank the following young Members who celebrated their birthdays here recently: Danielle Ash, Samantha Stanbuck, Dashiell Finley, Henry Grabar-Sage, and Zoe Lescage



Sun Mon Tue Wed Thu Fri Sat

# February 1997 American Museum of Natural History



2

**3 7:00 p.m.** Sex and the Origins of Death. Education Department lecture program. Speaker, William R. Clark. Page 6.

**4 6:30 p.m.** Hands-on Geology. Members' workshop, conducted by Sidney Horenstein. Part 1. Page 2.

**5 5:30 p.m.** New York Mineralogical Society. Kaufmann Theater. Free. **7:45 p.m.** Amateur Astronomers Association of New York. "Longitude." Speaker, Dava Sobel. Main Auditorium. Free.

**6 7:30 p.m.** Planetarium lecture series: "Probing Dark Matter with Cosmic Mirages." Speaker, Anthony Tyson. Kaufmann Theater. Page 8.

## Multicultural Programs

### Black History Month

February is Black History Month at the Museum, and the Education Department is presenting a related series of multicultural programs. They will take place on the first three weekends of the month, from February 1st through the 23rd, in the Leonhardt People Center. For free flyers and information, call (212) 769-5315.

**8 2:00 p.m.** OrigamiUSA. The last in a series of one-day classes offering an "Introduction to Origami." Call (212) 769-5635 for information.

**9 2:00 p.m.** New York Shell Club. Blum Classroom. Free.

10



**11 6:30 p.m.** Hands-on Geology. Members' workshop, conducted by Sidney Horenstein. Part 2. Page 2. **7:30 p.m.** Linnaean Society of New York. Leonhardt People Center. Free.

**12 Lincoln's Birthday**  
The Museum is open.

13

**14 Valentine's Day**  
**6:30 p.m.** When the Moon Hits Your Eye ... Members' guided hall tour, with Robert Campanile. Free. Tickets required. Page 2.

15



Please Note  
In observance of  
Lincoln's birthday,  
there will be no Walk  
on the Wild Side on  
February 12.

**16 1:30 a.m.** New York Turtle and Tortoise Society. Linder Theater. Free.

**1:00 p.m.** New York Mycological Society. Linder Theater. Free. **2:00 p.m.** New York Paleontological Society. Linder Theater. Free.

**17 President's Day**  
The Museum is open.

**18 10:30 a.m. or 1:30 p.m.** Winter Workshops for Young Members, conducted by June Myles. "Cats! Cats! Cats!" Page 2. **7:00 p.m.** New York Entomological Society. Blum Classroom. Free.

**19 10:30 a.m. or 1:30 p.m.** Winter Workshops for Young Members, conducted by June Myles. "Ferocious Fish—Past and Present." Page 2. **7:00 p.m.** New York Microscopical Society. Linder Theater. Free.

**20 10:30 a.m. or 1:30 p.m.** Winter Workshops for Young Members, conducted by June Myles. "World Champs." Page 2. **5:00 p.m.** First departure for Behind the Scenes at the Mammalogy Department. Members' special tours. Multiple departure times. Page 2.

21

**22 10:30 a.m.** First departure for Behind the Scenes at the Mammalogy Department. Members' special tours. Multiple departure times. Page 2. **12:00 noon-4:00 p.m.** The Discovery Room is open. Leonhardt People Center. Museum Magic theme for the month: "The Faces We Make."

**23 12:00 noon-4:00 p.m.** The Discovery Room is open. Leonhardt People Center. Museum Magic theme for the month: "The Faces We Make."

**24 7:00 p.m.** Early Christian Secrets: James, the Brother of Jesus. Education Department lecture program. Speaker, Robert Eisenman. Page 6.

**25 7:30 p.m.** Linnaean Society of New York. Leonhardt People Center. Free.

26

27

28



Carry the Card!  
Please help us serve you more efficiently by bringing your membership card with you each time you visit. Your entry into the Museum is easier when you do. Thanks!

Printed on recycled paper



LETTER  
BY THE  
AMERICAN MUSEUM  
OF NATURAL HISTORY

# ROTUNDA

For Family/Dual and Higher Members of the American Museum of Natural History

Vol. 22, No. 3 March 1997

## Up in Central Park

At least 275 species of birds have been counted in New York City's Central Park, which has been a lure for bird enthusiasts since it opened in 1859. A big green island in the middle of a stone and concrete sea, Central Park is also strategically located at the divergence of two migration routes, or flyways, for birds — the Atlantic coast and the Hudson River.

Beginning April 4, the Museum's first-floor Gallery 77

will host a new exhibition illustrating how the park continues to serve as headquarters for both birds and birders, vying with such prime birding areas as the Everglades and Cape May.

*Up in Central Park: Birds and Birders* will feature mounted specimens of birds that can be seen in the park as well as a wide range of photographs shot there in all seasons showing both migratory species and year-round

residents. Other photos, archival and recent, will illustrate birders at various scenic park points favored by the birds.

The exhibition will be organized to accommodate four specific themes. Anyone who takes the trouble to look can easily see starlings, sparrows, cardinals, ducks, and other conspicuous species in the park; these "birds without binoculars" will be a prominent part of the exhibition.

A section on rare sightings presents unusual birds that visitors can find only with binoculars and even telescopes — uncommon species of warblers, owls, and the like. The spring migration story will show examples of birds that pass through the park — the multiple visitors that stop over on their way north or south. Finally, a section on preserving the habitat focuses on examples and results of the continuing work to maintain, and in some cases restore, the park to a place in which birds, other animals, and especially people can happily congregate together.

Another feature of the exhibition is a bird identification game based on bird calls to help both children and adults



Farida Wiley



Farida Wiley leading a group in Central Park on a bird walk in January 1946.

**On view in the Museum's first-floor Gallery 77 beginning April 4**

join in the perennial fascination of the birder. Also featured is a video by French filmmaker Frederic Lilien, developed specially for *Up in Central Park*, that focuses on park activities with special emphasis on birds and birders.

Displayed separate from but adjacent to these exhibits in Gallery 77 will be a selection of Audubon bird paintings loaned by The New York Historical Society and chosen to represent species now seen in Central Park.

### Members' Walking Tours

## Central Park, Prospect Park:

## Geology and History

### Central Park

**Sunday, April 27**  
**Three sessions:**  
**10:00 a.m., 12:00,**  
**or 3:00 p.m.**  
**\$15 for Members**  
**\$17 for non-Members**  
**Program Code: MM4-04**

The northern part of Central Park is rich in historical associations and geological features. Some of the best rock exposures that clearly tell the story of the underpinnings of New York are displayed here. Unlike other park areas, many "natural" features can still be seen in this wonderful part of Central Park.

On this tour, conducted by Sidney Horenstein, coordina-

tor of the Museum's Environmental Public Programs, participants will see the site of McGown's pass and the location of its famous tavern. They will also have the opportunity to see the War of 1812 Blockhouse, and to find out where the material it is made of came from.

After the walk, tour members will be able to visit an exhibition focusing on this part of the park at a site adjacent to the newly restored Harlem Meer.

Participants may wish to combine this walking tour with a visit to the Museum's new Gallery 77 exhibition (see above) focusing on the park's role as an important haven for birds and birders.

### Prospect Park

**Tuesday, May 13**  
**Two sessions:**  
**4:00 p.m. and 6:00 p.m.**  
**\$15 for Members**  
**\$17 for non-Members**  
**Program Code: MM3-05**

Designed by the same team that created Central Park — Frederick Law Olmsted and Calvert Vaux — Prospect Park was completed in 1874 and incorporates many of the concepts Olmsted and Vaux employed in their first project and perfected in Prospect Park.

Led by Sidney Horenstein, participants will experience an effect specifically planned by Olmsted as they quickly lose

their connection with the park's point of entry and step into a land that glaciers built beginning 20,000 years ago.

Tour members will proceed through the Vale of Cashmere, alive with a large variety of birds, to Battle Pass, named for its function during the Revolutionary War, and on to the edge of the terminal moraine, the farthest southern reach of the glaciers.

From there participants can see the remains of the plain that extended for 100 miles out to the sea.

Horenstein will discuss the geological origin of many of the topographic features along the way as well as the geological source of the materials in many of the park's architectural treasures.



# Second Notice

## Huggable Environments: Mr. Huggy and His Huggable Puppets

Sunday, March 2

An entertaining children's puppet show with messages of self-love and love of the environment, presented by Paul Thomas. Ages 3 to 7. Two shows: 11:00 a.m. or 1:00 p.m. \$15; \$10 for Family/Dual or Higher Members. Program Code: MM1-03

## A Historic Look at Building Stones

Tuesday, March 18

Slide-illustrated lecture on building stones from their first recorded use to the present, presented by Sidney Horenstein. Time: 7:00 p.m. \$9; \$6 for Family/Dual and Higher Members. Program Code: MM5-03

## Hot Spots: America's Volcanic Landscape

Tuesday, March 11

Slide-illustrated lecture documenting some of America's unique areas of volcanic activity, presented by Diane Cook and Len Jenshel. Book purchase and signing included. Time: 7:00 p.m. \$9; \$6 for Family/Dual and Higher Members. Program Code: MM3-03

## Endangered Species — Creating a Sculptural Record

Saturday, March 15

Members' molding and casting workshop. Participants construct "sculptural records" related to endangered and extinct species. Conducted by Pamela Popeson. Time: 10:00 a.m. Ages 16 and older. \$50; \$40 for Family/Dual and Higher Members. Program Code: MM4-03

## Guns, Germs, and Steel: The Fates of Human Societies

Tuesday, March 4

Slide-illustrated lecture on early human history, presented by Jared Diamond. Book purchase and signing included. Time: 7:00 p.m. \$9; \$6 for Family/Dual and Higher Members. Program Code: MM2-03

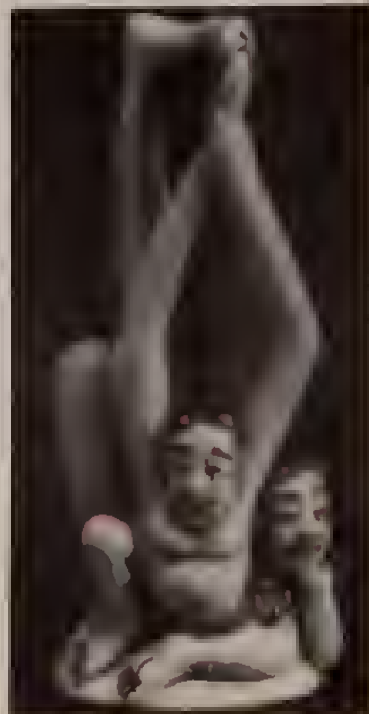


Jared Diamond

## Eggciting Eggxhibits

Friday, March 28

Members' guided hall tour, conducted by Robert Campanile. Time: 6:30 p.m. Free, and open only to Family/Dual and Higher Members. Program Code: MM8-03



Doris Finn

## Wandering Dragons: The Dinosaurs of Canada and China

Wednesday, March 26

Slide-illustrated lecture on dinosaurs of the Cretaceous era and the results of expeditions by the Canada-China Dinosaur Project, presented by Philip J. Currie. Time: 7:00 p.m. \$12; \$8 for Family/Dual and Higher Members. Program Code: MM7-03

## The Museum — Inside and Out

Friday, March 21

Members' guided tour, with a historical perspective, of inside and outside areas of the Museum, conducted by Sidney Horenstein. Three sessions: 4:30, 6:00, or 7:30 p.m. \$15, and open only to Family/Dual and Higher Members. Program Code: MM6-03

## Members' Guided Hall Tour

# The "Ex" Files

Friday, April 18

6:00 p.m.

Free

Open only to Family/Dual and Higher Members Program Code: MM3-04

Investigate the mysteries surrounding extinctions: Can we understand what it takes to survive as a species, or are we afraid to care? Will we learn from past environmental mishaps and destruction, or are we destined to relive the past? Are we "naturally" destructive? And, if so, what about our future? Does our intellect surpass our emotional capabilities? The questions are endless, but the time to answer them is limited. Using

the Museum's halls and the new exhibition *Endangered! Exploring a World at Risk*, Robert Campanile will confront the often difficult and mysterious question of extinctions. The truth, he says, is out there!

Although this tour is free, tickets are required. Please note, however, that reservations are limited to two per person. Use the coupon on page 6 or call Central Reservations at (212) 769-5200.

## Members' Lecture Program

# Expedition: African Biodiversity Conservation

Thursday, April 10; 7:00-8:00 p.m.

Kaufmann Theater

\$6 for Members; \$8 for non-Members

Program Code: MM2-04

Join Joel Cracraft for a slide-illustrated lecture focusing on African rain forests and the issues surrounding biodiversity conservation in Africa today.

Cracraft, Museum ornithology curator, has been working directly on biodiversity issues for the past seven years. Late last year he journeyed to The Central African Republic together with an expedition of eighteen Museum scientists and exhibition preparators to collect specimens for the new Hall of Life's Diversity, scheduled to open in 1998. A prominent feature of the new hall will be the re-creation of a segment of the Dzanga-Ndoki rain forest in the form of a large-scale, open diorama, similar to the one constructed

for last year's Gallery 3 exhibition, *Amber: Window to the Past*.

Through photographs taken on the expedition, participants in this lecture will be able to experience both the unique biodiversity of a rain forest and the way in which scientists and preparators assemble materials in the field to reconstruct them for a diorama of this kind. Cracraft will discuss the story of the rain forest as a component of the new Hall of Life's Diversity, and explain how the exhibit will serve to illustrate some of the major issues surrounding biodiversity conservation.

He will also discuss conservation projects currently underway in Africa. Participants will learn about conflicts that

arise between conservation and development efforts, and how these issues are being treated in an ongoing multinational project aimed both at conserving the rain forest and meeting the needs of the people in this region of The Central African Republic.

The Museum expedition to Africa will also be the subject of the upcoming *Dzanga-Ndoki Rain Forest: The Making of an Exhibition*, curated by Cracraft and scheduled to open in mid-July in the Museum's second-floor Akeley Gallery.

This exhibition will give an overview of the new, permanent Hall of Life's Diversity, and describe in pictures and text how the rain forest diorama will be constructed.

# ROTUNDA

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# Middle East Journals: *Natural History* Photographers

Tuesday, April 29

7:00-9:00 p.m.

Linder Theater

\$10 for Members; \$15 for non-Members

Program Code: MM5-04

The Museum's *Natural History* magazine is co-sponsoring with the Membership Department a special slide lecture and informal question-and-answer session with two award-winning photojournalists, Lori Grinker and Ed Kashi. Featured at this program will be photographs and a discussion centering on the Middle East, where the speakers have worked on stories with themes as diverse as Jewish settlers on Israel's West Bank and an Egyptian orchestra of blind women.

Grinker began her career with a college assignment about a young boxer, during

which time she met the 13-year-old Mike Tyson, whose life she documented for the following decade. Her work since then, more social-humanistic in nature, has included two photo essays for the Op-Ed page of the *New York Times* — one covering the plight of the Dinka in southern Sudan and one on the subject of war veterans from around the globe — as well as assignments in Southeast Asia, Africa, the USSR, and throughout the United States. Her photographs have been exhibited in museums and galleries both here and abroad. Grinker's book of black-and-



At Naur Wol-Amal Rehabilitation Center, Coiro, Egypt; young girls' orchestra on a day trip to the pyramids

© 1995 Lori Grinker/CONTACT Press Images



This man spins silk to make tassels that are sold in the local markets, City of the Dead, Coiro, Egypt.

white photographs — *The Invisible Thread: A Portrait of Jewish American Women* (Jewish Publication Society, 1989) — is the culmination of six years' work, and is now in its fourth printing. She was awarded a World Press Photo first-place prize for her photo story on the orchestra at Cairo's school for blind women ("Sounds of Light and Hope," *Natural History*, 11/96).

Kashi, born in New York City, graduated from Syracuse University with a degree in photojournalism in 1979. He received a WESTAF NEA grant in 1991 for an essay on the Loyalist community in Northern Ireland, which was published in the book *The Protestants: No Surrender*. Since 1991 he has focused on issues in the Middle East, producing two cover stories for

*National Geographic* magazine — one on the struggles of the Kurds and one on water problems in the area. His personal essays on a number of subjects include one on overpopulation in Cairo's City of the Dead.

Kashi was a finalist in the W. Eugene Smith Grant in Humanistic Photography in 1995 for an ongoing, long-term project that examines the life of Jewish settlers in the West Bank (some of these photos appeared in "The Settlement," *Natural History*, 12/96-1/97). His photographs have been published and exhibited internationally.

Grinker and Kashi will each show slides of their work and discuss their experiences as photojournalists in the Middle East. They will also open the discussion to include questions from the audience.

## Members' Children's Program

# Bing! Bang! Boom! The Ethos Percussion Group

Saturday, April 5

Two Sessions: 1:00 p.m. or 3:00 p.m.

Kaufmann Theater

\$10 for Members; \$12 for non-Members

Program Code: MM1-04

Families can enjoy an afternoon of unusual musical education and entertainment when the Ethos Percussion Group bring their fascinating *Bing! Bang! Boom!* show to the Museum — a dynamic introduction to the family of percussion instruments, the sounds they create, and the way in which they are played.

The program opens with music from Liszt's *Hungarian Rhapsody* and a demonstration of keyboard instruments such as the marimba and the xylophone. An "American Salute" section highlights such nontuned instruments as the snare and bass drums, and other sections focus on ethnic instruments and music.

After a demonstration of common objects used for percussion, the audience joins in the fun by helping to create the sounds of a rainstorm. The program concludes with a question-and-answer session and a performance of Rossini's *William Tell Overture*.

A well-known performance group, Ethos Percussion includes in its repertoire contemporary and traditional compositions from South America, India, Africa, and the Pacific Rim. They also perform the works of Gershwin and Bach arranged for percussion instruments.

In conjunction with a *Chamber Music America* Ensemble Residency Planning Grant, the group has begun



Ethos Percussion Group members (left to right) Joseph Grainley, Trey Files, Michael Sgouras, and Eric Phinney with some of their instruments.

a world music workshop and outreach program through the Children's Museum of Manhattan.

Ethos members have performed with groups including the New World

Symphony, the Manhattan Chamber Orchestra, and the Spoleto Festival. Their concert schedule this season will include a major performance at Carnegie's Weill Hall.

© Michael Sgouras



# Scientist's Bequest Ensures Continuation of His Life's Work

## The Norman D. Newell Fund Grows



Norman Newell and Neil Landman in Newell's fifth-floor office

Three years ago, Neil Landman, chairman of the Invertebrates Department, decided to honor his mentor, colleague, and friend by establishing the Norman D. Newell Fund. The occasion, the eighty-fifth birthday of Norman Newell, also marked a half-century of active service and research by the long-time chairman and present curator emeritus of Invertebrates. Now this preeminent scientist, who still spends a large part of each week working in his fifth-floor Museum of-

fossil shells of small invertebrates that lived millions of years ago. As he matured, his interest deepened and grew, leading to a long and distinguished career studying the vital role these small creatures have played in the history of life on earth. As chairman of the Invertebrates Department, Newell pursued pioneering research on systematic paleontology, paleoecology, and evolution and extinctions. His ongoing studies have focused on major "breaks" in the fossil record caused by

**Newell was ahead of his time in warning against the large-scale degradation of the natural environment that is causing the endangerment and extinction of so many species in the world today.**

the Fund in years to come through a generous bequest in his will. The Museum's scientific and educational mission is of special importance to Norman Newell — the Fund provides not only for the Museum's future but also for the continuation of his life's work.

As a young boy growing up in Kansas, Newell began collecting the

ecological crises that resulted in the great extinctions of the past. With his understanding of these events, Newell was ahead of his time in warning against the large-scale degradation of the natural environment that is causing the endangerment and extinction of so many species today.

A strong advocate of science education at all levels, Newell has served as teacher and mentor to some sixty

graduate students over the years, among them Niles Eldredge, Invertebrates Department curator, and Stephen Jay Gould. Delighted by the establishment of this Fund in his name, Newell is also firmly convinced of its importance for future study in his discipline. Many universities have already, or are in the process of, discontinuing their invertebrate paleontology departments, according to Newell in large part because of the cost of establishing and maintaining the necessary collections. He also points out that the thrust in teaching institutions is now toward technology, or practical applications, rather than basic science, or the study of underlying principles. "This is why this Fund, which will be an ongoing source of support for the study of invertebrates at the Museum, is so important," Newell says.

Managed as part of the Museum's endowment, the Newell Fund provides

support for research and for young scientists. With contributions from many admiring friends and colleagues, the Fund recently passed the \$100,000 mark. Last summer, Fund income enabled a graduate student to participate in and present her research at an international symposium held in Spain. This year, the Fund will sponsor another student's field work in Montana. With further support from donors and friends, it is hoped the Fund will grow sufficiently to establish an endowed research fellowship in this dedicated scientist's name.

"I love the Museum very much," Newell says, "and I love my profession, so this is a way in which I can help both." Through the bequest now established in his will, Newell has provided for both the Museum and the future continuation of his own pioneering research on the history of life on earth.

### Ensuring the Museum's Future

Is there an aspect of the American Museum of Natural History's scientific and educational mission that is of special importance to you? Through a bequest or a special planned gift providing lifetime income, you can ensure the future of the Museum's work for many years to come. For more information, please call toll free 1 (800) 453-5734, or complete and return the confidential reply form below to Jane C. Palmer, Director of Planned Giving, Office of Development, American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192.

Please send me information on:

- ☐ a bequest to the Museum in my will  
☐ a gift to the Museum that pays me income for life

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone (home): \_\_\_\_\_ (office): \_\_\_\_\_

Tax and other financial benefits may depend on age.

My (our) age(s): \_\_\_\_\_

Your reply is confidential and implies no obligation.

## American Littoral Society Symposium

Friday, March 14; 8:00 p.m.

**Featured Speaker: Richard Ellis**

The Atlantic Ocean will be the main topic of the thirtieth annual symposium of the American Littoral Society, to be held in the Kaufmann Theater on March 14 from 8:00 to 10:00 p.m.

Featured speaker Richard Ellis will present a slide-illustrated lecture based on his new book, *The Deep Atlantic: Life, Death, and Exploration in the Abyss* (Knopf, 1996), covering such subjects as whaling and methods of exploring the ocean to depths of 25,000 feet.

He will show slides of some of the creatures of the abyss, from deep-water sharks to whales, squids, and

fishes that light up. Copies of his book will be available for purchase and signing at the talk.

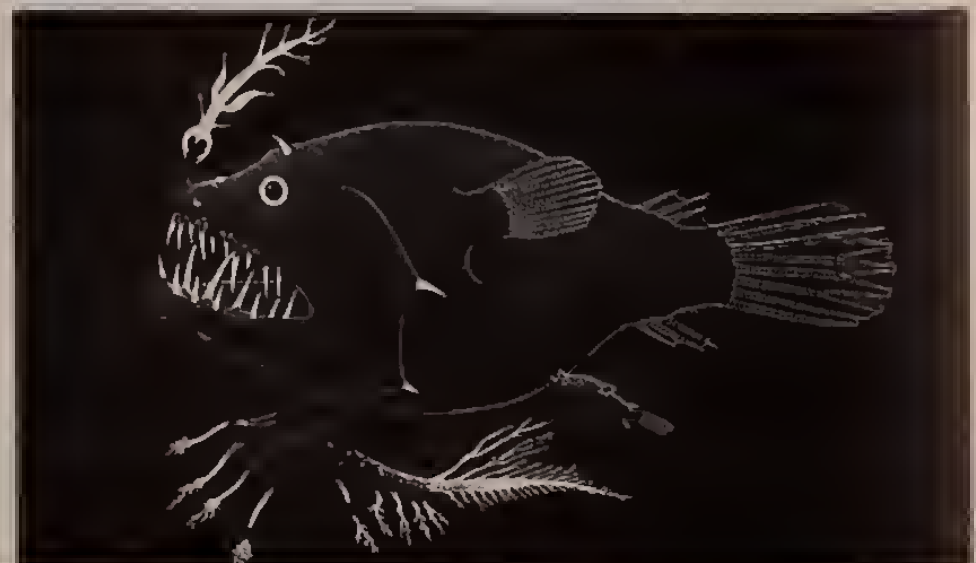
Also on the program will be Don Riepe, chair of the society's New York chapter, who will give a slide-illustrated talk on recent Littoral Society field trips to Iceland, the Galapagos, and points in between.

The symposium is open to the public, but reservations are required. Tickets are \$10. Send a check payable to the American Littoral Society and a self-addressed, stamped envelope to American Littoral Society, Highlands, NJ 07732. For information please call (908) 291-0055 or (718) 634-6467.



Left: Mole and female of the ovocet-eel (*Avocettina infans*) look like different species. Below: *Linophryne pennibarbata* ("feather barbed") gets its name from the feathery nature of its chin barbel.

Illustrations by Richard Ellis





# Spring 1997 Education Department Programs

## Evening Lecture Series

### Plants of the Wetlands

Five Mondays, March 3-31  
2:30-4:00 p.m.

**Program Code: ED97213L**

or Five Thursdays, March 6-April 3  
7:00-8:30 p.m.

\$35; \$31.50 for Members

**Program Code: ED97214L**

The full value of wetlands is just beginning to be appreciated as new discoveries increase our understanding of their intricacy and relationship with the larger environment. This slide-illustrated series of lectures, presented by William Schiller, lecturer in botany in the Museum's Education Department, focuses on eastern North America.

### Water: A Natural History

Tuesday, March 4  
7:00-8:30 p.m.

\$10; \$9 for Members

**Program Code: ED97205L**

Alice Outwater is an environmental engineer. In this slide-illustrated talk, based on her new book *Water: A Natural History*, she reviews our historical input into the native ways of water. The author will be available to sign copies of her book after the lecture.

### Religion on the Edge of the Millennium

Four Wednesdays, March 5, 12, 19, and 26

7:00-8:30 p.m.

\$25; \$22.50 for Members

**Program Code: ED97206L**

This is a somewhat nontraditional, anthropological look at religion in the world today as we move into the next millennium.

The lectures and speakers are: "Korean Shamans and the Spirits of Capitalism," Laurel Kendall, Museum curator of Asian ethnographic collections; "Vodou in the 'Tenth Department': New York's Haitian Immigrant Community," Karen McCarthy Brown, Luce Professor of Religion, Barnard College; "A 'Godman' Down-to-Earth: Politics, Ethnicity, and a New Religion in Trinidad," Morton Klass, professor of anthropology, Barnard College; and "What's Happening with the New Age? Religious Change in the United States," Carol Henderson, fellow, School of International and Public Affairs, Columbia University.

### Two Talks with Edwin Bernbaum

#### Mount Athos: The Holy Mountain

Monday, March 10

7:00-8:30 p.m.

\$10; \$9 for Members

**Program Code: ED97207L**

Edwin Bernbaum, a mountaineer, scholar of comparative religion and mythology, and author of *Sacred Mountains of the World*, will show how the special religious status of sacred Mount Athos has helped the peninsula to preserve a biodiversity found nowhere else in the Balkans.

#### Hidden Myths of Modern Life

Wednesday, March 12

7:00-8:30 p.m.

\$10; \$9 for Members

**Program Code: ED97208L**

Bernbaum will discuss the different

functions of myth to discover how they are comparable to the roles played by our own belief systems and assumptions today.

### Origin of Species

#### Revisited

Tuesday, April 15

7:00-8:30 p.m.

\$15; \$13.50 for Members

**Program Code: ED97203L**

In this production, offered one time only to New York audiences, Richard Milner, editor of the *Encyclopedia of Evolution* and an editor at *Natural History* magazine, impersonates Charles Darwin, and Gareth Nelson, from the Museum's Ichthyology Department, represents Alfred Russel Wallace. The Linnaean Society of London's delightful play has been acclaimed for its scholarly accuracy as well as for its entertainment value and was a hit at last year's Edinburgh Science Festival.

### Endangered! Exploring a World at Risk

Four Wednesdays, April 16 to May 7

7:00-8:30 p.m.

\$30; \$27 for Members

**Program Code: ED97215L**

In conjunction with the Museum's new exhibition *Endangered! Exploring a World at Risk*, this four-part lecture series examines the major causes of species extinction and its effects on humans and the planet as a whole. Four scientists will present slide-illustrated talks examining the major topics: habitat loss, introduction of exotic species, and overexploitation. For additional information on these lectures, call (212) 769-5310.

### Keeping Houses in a Changing World: Shells, Museums, and Economics

Tuesday, April 29

7:00-8:30 p.m.

\$10; \$9 for Members

**Program Code: ED97209L**

Evolutionary biologist Geerat Vermeij is the world's leading authority on the ancient "arms race" among mollusks. In this lecture, he explains why shells are more than just elegant pieces of sculptural architecture. Vermeij is a professor at the University of California, Davis, and editor of *Evolution*, a journal of natural history. Copies of his recently published book, *Privileged Hands: A Scientific Life*, will be available for purchase and signing after the lecture.

## Field Trips and Walking Tours

### Animal Drawing

Eight Tuesdays, March 4-April 22

7:00-9:00 p.m.

\$125 (materials not included)

Enrollment limited to 25

**Program Code: ED97300X**

Join Museum artist Stephen C. Quinn to sketch subjects such as gazelles on the African plains or timber wolves in the snow. Quinn, senior assistant manager in the Exhibition Department, discusses drawing technique, animal anatomy, and the role of the artist at the Museum.

These programs, advertised in a special section of the February issue of *Rotunda*, are briefly described in the second notices below. To receive a full listing of Education Department Spring 1997 programs, please call (212) 769-5310.

Make reservations by calling (212) 769-5200 with your credit card number or filling out the Central Reservations coupon on page 6, under the Education Department heading. Please note that Members' prices also apply to students and senior citizens and that there is no discount for walking tours or field trips.

### Nature's Book ... Seldom Read

Four Fridays, March 7, 14, 21 and April 4

6:30-8:00 p.m.; \$25

Enrollment limited to 25

**Program Code: ED97308X**

This lecture series, combined with gallery tours focusing on Museum dioramas, will be given by Robert Campanile, Museum docent and tour guide, and each one in the series centers on a specific environmental theme: rain forests and wetlands; deserts and grasslands; mountains; and oceans, islands, and Antarctica.

### Spring Bird Walks

#### in Central Park

8 Tuesdays, April 1-May 27

(excluding April 22)

7:00-9:00 a.m.

**Program Code: ED97302X**

or 8 Wednesdays, April 2-May 28

(excluding April 23)

7:00-9:00 a.m.

**Program Code: ED97303X**

or 8 Thursdays, April 3-May 22

9:00-11:00 a.m.

**Program Code: ED97304X**

Enrollment limited to 25; \$50

Observe the spring migration of birds in Central Park with naturalists Stephen C. Quinn (Tuesdays), Joseph DiCostanzo (Wednesdays), and Harold Feinberg (Thursdays). You must register at least a week in advance for this series. Please note that walks start across the street from the Museum, on the northeast corner of Central Park West and 77th Street.

### Urban Forest Walking Tours with William Schiller

\$10 per tour

Enrollment limited to 25 per tour

Below are four separate programs led by the Education Department's senior lecturer in botany. Participants will receive information on the location of the starting point for each tour. Program codes indicated below for all tour dates. Please be sure to include the code for the tour of your choice in your phone or coupon reservation.

### Spring Flowers and Trees in Central Park

Wednesday, April 16

8:30-10:30 a.m.

**Program Code: ED97311X**

or Saturday, April 26

9:00-11:00 a.m.

**Program Code: ED97312X**

or Saturday, May 3, 9:00-11:00 a.m.

**Program Code: ED97313X**

The Shakespeare Garden, Hemishead, and Strawberry Fields areas will be explored as they change with the season.

### Northeast Forest, Van Cortlandt Park

Wednesday, April 30

10:30 a.m.-1:30 p.m.

**Program Code: ED97315X**

Luxuriant woodland surrounds small hidden wetlands in this northeast corner of the park. Some of the best springtime wildflower areas are here, including patches of spring ephemerals.

### Central Woodland, Pelham Bay Park

Saturday, May 10

10:30 a.m.-1:30 p.m.

**Program Code: ED97316X**

This park is New York City's largest green space, some 2,764 acres. Woodland bordered by picturesque salt marsh provides an opportunity to explore vegetation gradients to a marine environment.

### Palisades National Natural Landmark

Saturday, May 17

10:30 a.m.-1:30 p.m.

**Program Code: ED97317X**

Wooded cliffs, flowers, and scenic views are the hallmarks of this park in Alpine, New Jersey. A moderately strenuous hike to the cliff top and a botany walk of approximately four miles to the highest point on the escarpment is planned on a section of the Long Path National Recreation Trail.

### Bird Identification for the Beginner

Saturday, May 3

10:30 a.m.-3:00 p.m.

\$40 (includes sandwich lunch)

Enrollment limited to 25

**Program Code: ED97301X**

This workshop helps novice birders learn techniques for bird identification, such as charting, recording, and observation. After viewing Museum specimens that represent birds in the New York area, the class moves to Central Park for practical experience in identifying birds. Joseph DiCostanzo, research assistant on the Great Gull Island Project and past president of the Linnaean Society, leads this program.

### Children's Workshops

A program of eight different workshops are planned, from April 6 through May 18. See the February issue of *Rotunda*, page 10, for details, or call Central Reservations at (212) 769-5200.

## Free Programs

### Identification Day

Saturday, April 26

1:00-4:30 p.m.

Hall of Ocean Life

Free

What is it? Bring your shells, rocks, insects, feathers, bones, and artifacts for our twelfth annual Identification Day. A team of Museum scientists will attempt to identify your favorite garage-sale finds, curios from the basement, exotic souvenirs, and flea market discoveries of natural objects. Staff members will analyze and give information on the history and classification of all materials presented. Selected specimens from the Museum's collections will also be on display in the area on this day. However, no appraisals will be given, nor will the Museum identify gemstones.

Note that you can also bring water samples; representatives of the New York City Department of Environmental Protection will test them.

To receive flyers with detailed information on this as well as other free programs, please contact the Education Department at (212) 769-5176.



# At the Museum Shop

The *Endangered!* Shop on 3 is now open. It carries a variety of merchandise featuring the animals and habitats of the newly opened exhibition. You will find our novel line of endangered species silk ties and scarves; T-shirts designed for us by wildlife artist Alan James Robinson; and a large selection of jewelry, posters, and books, including the guidebook to *Endangered! Exploring a World at Risk*.

For children, the shop will feature our new line of endangered species stuffed animals, produced in cooperation with FAO Schwarz, and a wide range of toys and books that will help children understand the important topics of the exhibition — while they enjoy themselves.

This will be the first time that a special shop dedicated to an exhibition will be featuring limited edition works by artists. British sculptor Steven Vince has created a series of bronze animals ranging from \$500 to \$750. A very special offering is his endangered species chess set. Limited to an edition of nine sets, this

unusual item is priced at \$7,500. From Frederick Prescott, a sculptor working in Hawaii, come colorful pendulum sculptures priced from \$1,200 to \$5,900. Cathy Miller of Savannah, Georgia, has produced prints of endangered animals and habitats ranging from \$75 to \$330.

Museum Shops have added a new mini-shop in the Hall of Reptiles and Amphibians, just outside the *Endangered!* exhibition hall and nearby the Resource Center. The special exhibition guidebook as well as related children's merchandise and T-shirts will be on sale there.



Golden Eagle, in a drawing by Louis Agassiz Fuertes

SPRING IS HERE

Celebrate with  
our Easter Buffet

# Easter Sunday

March 30th from 11am to 4 pm

### Serving

## Carved Leg of Lamb

## Honey Glazed Virginia Ham

## Omelettes Made To Order

Specialty Pastas, prepared by our Chef

Spring Salads and a whole lot more!

**Dessert and Beverages Included!**

**Adults \$19.95   Children under 10, \$8.95**

### Reservations suggested

Call the Garden Cafe at 212-769-5865



Located on lower level next to DINER SAURUS

## Central Reservations Coupon



**By Phone** Call (212) 769-5200 six days a week — Monday through Friday from 8:00 a.m. to 6:00 p.m. and Saturday from 10:00 a.m. to 6:00 p.m. Have your credit card and membership category ready when you call.



**By Mail** Send the registration form below to Central Reservations, American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192. Make checks payable to the American Museum of Natural History.

## Membership Programs

<b>Program Title</b>	<b>Code</b>	<b>Date/Time</b>

## Education Department


## Hayden Planetarium

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[illegible]

**Name:** \_\_\_\_\_

Phone (day): \_\_\_\_\_ (eve.): \_\_\_\_\_

Address: \_\_\_\_\_

Charge my: American Express \_\_\_\_\_ Visa \_\_\_\_\_ Master Card \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Card Number: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_

**Membership Category:** \_\_\_\_\_

Signature: \_\_\_\_\_ Expiration Date: \_\_\_\_\_



# Museum Notes

**Hours**  
 Exhibition Halls  
 Mon.-Thurs. & Sun. .... 10:00 a.m.-5:45 p.m.  
 Fri. & Sat. .... 10:00 a.m.-8:45 p.m.  
 The Museum Shop  
 Mon.-Thurs. & Sun. .... 10:00 a.m.-5:45 p.m.  
 Fri. & Sat. .... 10:00 a.m.-7:45 p.m.  
 The Junior Shop  
 Mon.-Fri. .... 10:00 a.m.-4:45 p.m.  
 Sat. & Sun. .... 10:00 a.m.-5:45 p.m.  
 The Museum Library  
 Tues.-Fri. .... 11:00 a.m.-4:00 p.m.

**The Natural Science Center**  
 There are many wild places in the New York City area, and the center features these habitats' plants and live animals. Closed holidays.  
 Tues.-Fri. .... 2:00-4:30 p.m.  
 Sat. & Sun. .... 1:00-4:30 p.m.  
 Thursday storytelling. .... 3:00 p.m.

**Museum Dining**  
**Diner Saurus Fast Service Eatery**  
 Daily .... 11:00 a.m.-4:45 p.m.  
**Garden Cafe**  
 Reservations: (212) 769-5865  
 Lunch: Mon.-Fri. .... 11:30 a.m.-3:30 p.m.  
 Dinner: Fri. & Sat. .... 5:00-7:30 p.m.  
 Lunch: Sat. & Sun. .... 11:00 a.m.-4:00 p.m.  
**Whale's Lair**  
 Fri. .... 3:00-7:30 p.m.  
 Sat. .... Noon-7:30 p.m.  
 Sun. & most holidays .... Noon-4:00 p.m.  
**Snack Carts**  
 Sat. & Sun. .... 11:00 a.m.-4:00 p.m.

## List of Exhibits

Exhibit	Location	On View Until
<b>The Tongass: Alaska's Magnificent Rain Forest</b>	Akeley Gallery, 2nd floor (opens March 7)	6/15/97
<b>Endangered! Exploring a World at Risk</b>	Gallery 3, 3rd floor (opens March 8)	9/1/97
<b>Life on Mars?</b>	Hall of Meteorites, 1st floor	5/1/97
<b>IMAX® Theater</b>		
Man.-Sun. <b>Laser Worp</b>	10 and 11:30 a.m. and 4:30 p.m.	
<b>Cosmic Voyage</b>	10:45 a.m. and 12:30 and 2:30 p.m.	
<b>Stormchasers</b>	1:30 and 3:30 p.m.	
Friday and Saturday	Double Features (call Central Reservations at 769-5200)	

**Entrances**  
 During Museum hours visitors can enter the building through the 77th Street entrance, the first- and second-floor Roosevelt Memorial Hall entrances (79th Street and Central Park West), or through the subway entrance. **Visitors attending programs after hours can enter the building only at 79th Street and Central Park West, under the stairs of the carriage entrance.**

**Phone Numbers**  
 Museum information .....(212) 769-5100  
 Planetarium information .....(212) 769-5900  
 Education Department .....(212) 769-5310  
 Discovery Tours .....(212) 769-5700  
 .....toll-free outside NY State: (800) 462-8687

IMAX® .....(212) 769-5034  
 Development .....(212) 769-5151  
 Communications .....(212) 769-5800  
 Volunteer Office .....(212) 769-5566  
 Museum Shop .....(212) 769-5150  
 Library Services .....(212) 769-5400  
 Natural History magazine .....(212) 769-5500  
 Membership Office .....(212) 769-5606  
 Members' Birthday Parties .....(212) 769-5542  
 Planned Giving Office .....(212) 769-5119  
 .....toll-free outside NY State: (800) 453-5734  
 Central Reservations .....(212) 769-5200  
 World Wide Web Site .....http://www.amnh.org

**Parking:** To find out about alternative paid parking in lots in the vicinity of the Museum, call the Membership Office at 769-5606.

## Exhibit of the Month

### Adapting to the Cold, the Inuit Way

Although this month's featured exhibit, located in a hall adjacent to the Main Auditorium on the first floor, employs the word "Eskimo" in its title, the group of people represented in it prefer to call themselves "Inuit," which in their language means "human beings." Eskimo is derived from a word meaning "eaters of raw flesh" in a language of the Athabaskan linguistic family, and it refers to this group's almost exclusive diet of raw fish and meat. The Inuit live in small communities scattered over the arctic and sub-arctic coasts as well as on offshore islands of Greenland, Canada, Alaska, and Siberia. To meet the challenge of their cold and harsh environment, they have developed highly specialized clothing adaptations.

Inuit clothing is designed for extremely cold weather conditions, and their garments are so efficient that, at 50 degrees below zero, an Inuit can work comfortably outdoors for hours. The clothing utilizes the insulating properties of air in just the same way as our storm windows. Made of tanned seal, caribou, or polar bear skin, it fits loosely over the body to allow air that is warmed by the body to circulate between the clothing and its wearer. Because the skins are airtight, cold air cannot penetrate and warm air cannot escape.

Since moisture is constantly evaporating from the body, the clothing must also provide some means of ventilation to prevent dampness from di-

minishing its effectiveness against the cold. Outer garments are worn loose at the bottom and close to the body at the top, where the hood permits the weight of the clothing to rest on the shoulders. If overheating stimulates perspiration, the garment is pulled forward at the throat. Warm air, which is lighter than cool air, rises and escapes at the throat, while cool air enters at the bottom. By regulating the flow of air, it is possible to stay both warm and dry. During the coldest months, Inuit wear fur up against their skin on inner garments, which helps maintain an air space, and outer garments turned the other way around, with the fur on the outside.

Some garments have additional features developed for other cultural considerations. The fur jacket pictured on the far right in the cases of the first-floor Hall of Eskimos has an especially large hood, which is used for carrying a baby. The Inuit have also developed waterproof sealskin clothing worn while kayaking. Drawstrings around the wrists and hood keep out wind and water, and the bottom of the jacket is designed to fit over the rim of the kayak's manhole, forming a waterproof unit. If the kayak overturns, its occupant can remain relatively dry until the vessel can be righted. And the mittens worn by kayakers are made with two thumb holes, so that the mitten can be turned and reused when one thumb hole wears out.

-Erica Okone



Grouping in the Hall of Eskimos showing the Inuit's sophisticated design of cold-weather clothing.

## Special Family Workshops

The Education Department is inviting families to join them in developing and enlarging the themes of the Museum's new exhibition *Endangered! Exploring a World at Risk*. Through hands-on activities, visits to Museum halls, art, music, literature, and science, families will work on projects in these workshops dealing with endangered animals and habitats and solutions for the future.

This special series will take place throughout the spring and summer. Descriptions of upcoming workshops will appear each month in the pages of *Rotunda*. All programs are limited to an enrollment of 30 people (10-15 families). The programs are free, but tickets are required.

**Journey to Endangered!**  
 Sunday, March 23  
 11:00 a.m.-12:30 p.m.  
 Families with children ages 5-7  
**Program Code: EN1**

What are endangered species? Where do they live? Families take an imaginary train ride around the world to rescue endangered animals. Through storytelling and art-making, families will explore the themes of endangered animals while looking at Museum dioramas.

Presented by Deborah Van Wetering, costume and crafts designer.

**Pollution Solution!**  
 Friday, April 4  
 6:30-8:00 p.m.  
 Families with children ages 7 and up  
**Program Code: EN2**

Families will experiment with feathers and eggs to discover the effects that pollutants have on animals and water habitats.

Presented by Laura Weinstein, Museum educator.

**Call Central Reservations at (212) 769-5200 for tickets. For additional information, call (212) 769-5370.**

Rotunda extends many thanks and best wishes to Erica Okone, who will be leaving the Museum. Her Exhibit of the Month columns have been a regular and much appreciated feature of the newsletter. We wish her much luck.



Sun

Mon

Tues

Wed

Thurs

Fri

Sat



**2 11:00 a.m. or 1:00 p.m.**

Two sessions. Huggable Enutrons: Mr. Huggy and His Huggable Puppets. Members' children's program. Blum Lecture Room. Page 2.

**3 7:30 p.m.** Planetarium Lecture Series. Frontiers in Astrophysics. "Observing Globular Clusters with the Hubble Space Telescope."

Speaker, Carlton Pryor. Kaufmann Theater. Program Code: HP109L.

**4 7:00 p.m.** Guns, Germs, and Steel: The Fates of Human Societies. Slide-illustrated lecture.

Speaker, Jared Diamond. Kaufmann Theater. Page 2.

**5 7:45 p.m.** Amateur Astronomers Association. "Great Comets of the Last 400 Years." Speaker, Joe Rao. Kaufmann Theater.

Free.



### Carry the Card!

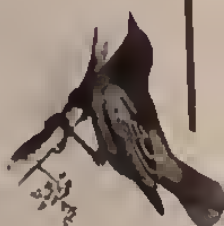
Card-carrying Members can take advantage of our new express line on weekends if they enter at the second-floor Rotunda, on Central Park West. Express line tickets are for Museum admission only. So carry the card!

**7 4:00-9:00 p.m.**

Members' Private Preview Party for *Endangered! Exploring a World at Risk*. Page 2.

**The Tongass: Alaska's Magnificent Rain Forest.** a photographic exhibition, opens in the Museum's second-floor Akeley Gallery.

**8 Endangered! Exploring a World at Risk.** a new exhibition located in the Museum's third-floor Gallery 3, opens to the public.



**9 2:00 p.m.** New York Shell Club. Blum Lecture Room. Free.

**10**



**11 7:00 p.m.** Hot Spots: America's Volcanic Landscape. Slide-illustrated lecture. Speakers, Diane Cook and Len Jenschel. Kaufmann Theater. Page 2.

**12 5:30 p.m.** New York Mineralogical Society. Leonhardt People Center. Free.



**14 8:00 p.m.** American Littoral Society Symposium. Featured speaker, Richard Ellis: *The Deep Atlantic: Life, Death, and Exploration in the Abyss*. Call (908) 291-0055 for tickets. Page 4.

**15 10:00 a.m.** *Endangered Species* — Creating a Sculptural Record. Members' Molding and Casting Workshop, conducted by Pamela Popeson. Blum Lecture Room. Page 2.

**16 10:30 a.m.** New York Turtle & Tortoise Society. Linder Theater. Free.

**1:00 p.m.** New York Mycological Society. Blum Lecture Room. Free.

**2:00 p.m.** New York Paleontological Society. Linder Theater. Free.

**17 St. Patrick's Day**

**18 7:00 p.m.** A Historic Look at Building Stones. Slide-illustrated lecture. Speaker, Sidney Horenstein. Kaufmann Theater. Page 2.

**7:00 p.m.** New York Entomological Society. Blum Lecture Room. Free.



**20 First Day of Spring**

**21 4:30 or 6:00 or 7:30 p.m.** Three sessions. *The Museum Inside and Out*. Members' walking tour, conducted by Sidney Horenstein. Page 2.

**22 2:00-5:00 p.m.** *The Great Goddess: Her Enduring Presence, Power, and Personality*. A program by scholars and performers sponsored by the Education Department in conjunction with Women's History Month. Kaufmann Theater. Tickets: \$12. Call (212) 769-5315 for more information. Call 769-5200 for ticket reservations.

**23 Purim Palm Sunday**

**24**

**25 7:30 p.m.** Linnaean Society of New York. Leonhardt People Center. Free.

### Multicultural Programs

#### Women of the World: Cross-Cultural Celebration

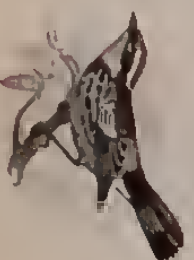
This month the Education Department is presenting a series of multicultural programs in conjunction with Women's History Month that commemorate women's achievements and examine their contributions. These lectures, dances, musical performances, and films will take place on three weekends, from Saturday, March 1, to Sunday, March 23. See calendar listing for March 22 for a special ticketed program to take place in the Kaufmann Theater from 2:00 to 5:00 p.m. Other programs will take place in the Leonhardt People Center. For a full schedule of events, call (212) 769-5315.

**30 Easter Sunday**  
The Museum is open.

**12:00 noon-4:00 p.m.** The Discovery Room is open. Leonhardt People Center. Museum Magic theme for the month: "King for a Day."

### Take Note!

The Visitor Parking Lot is temporarily closed as of mid-March. For public transportation and local parking information, call (212) 769-5100. To talk to one of our Membership representatives about alternative parking lots in the vicinity of the Museum, call (212) 769-5606 during business hours.



**March 1997**  
**American Museum of Natural History**

Printed on recycled paper



# ROTUNDA

For Family/Dual and Higher Members of the American Museum of Natural History

Vol. 22, No. 4 April 1997



An image of Comet Hale-Bopp as viewed from Cocoa, Florida, on February 17. Taken through a 12-inch Maksutov telescope, this is a mosaic image composed of four separate pictures.

Hayden Planetarium Special Lecture

## Everybody's Comet: The Discovery of Comet Hale-Bopp

Sunday, April 20  
7:30 p.m.

Main Auditorium

\$12; \$10 for Members, students, and senior citizens

Program Code: HP112L

Alan Hale, co-discoverer of Comet Hale-Bopp, will present a lecture centering on one of the brightest comets this century. Founder and director of the Southwest Institute for Space Research, an independent research organization in Cloudcroft, New Mexico, Hale will talk about this once-in-a-lifetime comet discovered by him in New Mexico and by Thomas Bopp in Arizona on July 23, 1995.

Comet Hale-Bopp was first sighted while it was still beyond the orbit of Jupiter but 250 times brighter than Comet Halley was at that distance. This is due in part to the enormous size of Hale-Bopp's nucleus, estimated to be about twenty-five miles across — more than three times the size of most other comets. The comet is visible now in the sky to the unaided eye even from light-polluted urban centers.

An active amateur astronomer for most of his life, Hale, who earned a PhD in astronomy from New Mexico State University in 1992, has observed over two hundred comets during the past twenty-five years, assisting the International Halley Watch during the return of that comet in 1985-6.

His institute in New Mexico strives to enhance the scientific literacy of the general public by providing opportunities for direct participation in research programs and other educational activities. Hale is currently engaged in initiating a search program, to include participation by school students and the general public, for potential Earth-impacting asteroids and comets. He is also actively involved in promoting space exploration.

Hale's talk will take the audience on a slide-illustrated tour of the universe. He will discuss comets and asteroids in general and Comet Hale-Bopp in particular and will also cover scientific speculation about what the future holds in store.

A prolific science writer whose articles have appeared in *Astronomy*, *The Astronomical Calendar*, *Free Inquiry*, *The Skeptical Inquirer*, and *Space News* magazines, Hale is also the author of *Everybody's Comet: A Layman's Guide to Comet Hale-Bopp* (High-Lonesome Books, 1996). After his presentation, Hale will answer questions from the audience, and copies of his book will be available for purchase and signing.

Presented in Conjunction with  
**Endangered!**

## An Evening with Jim Fowler

Monday, April 7

6:30-7:30 p.m.

Main Auditorium

\$10; \$9 for Members, students 12 and above, and senior citizens

\$5 for children

Program Code: JF1



Jim Fowler

Jim Fowler, one of the world's best-known naturalists, has presented information on wildlife and wilderness to the American public through the medium of television for over thirty years. As longtime host of *Mutual of Omaha's Wild Kingdom* (currently airing in an updated version on public television stations nationwide) and wildlife correspondent for NBC's *Today Show*, he communicates to a broad audience the importance of protecting wildlife habitats and the species they support. His mission is to influence public attitudes so that they in turn will help protect wildlife and bring about appropriate governmental policy. "The challenge of the 90s," Fowler says, "is to realize we are very much a part of the earth's ecosystem."

In this program, presented in conjunction with the exhibition *Endangered! Exploring a World at Risk*, Fowler follows his *Today Show* format. With live animals accompanying him on stage (including a number of threatened or endangered species highlighted in the Gallery 3 exhibition and its accompanying Museum hall audio tour *Expedition*), he will talk to the audience about conservation issues. Characteristics of the individual animals included in the program illustrate the important lessons to be learned about protecting them and their environments. Hands-on demonstrations, which include audience participation, make this interactive program an enjoyable and educational experience for the entire family.

For tickets, use the program code above and call Central Reservations at (212) 769-5200.



Members' Children's Program

## Bing! Bang! Boom! The Ethos Percussion Group

Saturday, April 5

Don't miss this unusual combination of musical education and entertainment with a well-known percussion performance group. For tickets, call Central Reservations at (212) 769-5200.

Time: 1:00 p.m. and 3:00 p.m.

\$12; \$10 for Family/Dual and Higher Members.

Program Code: MM1-04



# Second Notice

## Expedition: African Biodiversity Conservation

**Thursday, April 10**

A slide-illustrated lecture on a Museum expedition to The Central African Republic and the issues surrounding biodiversity conservation in Africa today.

Time: 7:00 p.m.

\$8; \$6 for Family/Dual and Higher Members.

Program Code: MM2-04

## The "Ex" Files

**Friday, April 18**

Members' guided hall tour, conducted by Robert Campanile. Tickets required but limited to two per person.

Time: 6:00 p.m.

Free, and open only to Family/Dual and Higher Members.

Program Code: MM3-04

## Central Park

**Sunday, April 27**

A walking tour conducted by Sidney Horenstein focusing on the history and geology of Central Park.

Time: 10:00 a.m., 12:00, or 3:00 p.m.

\$17; \$15 for Family/Dual and Higher Members.

Program Code: MM4-04

## Middle East Journals: *Natural History* Photographers

**Tuesday, April 29**

A slide lecture and informal question-and-answer session with award-winning photojournalists Lori Grinker and Ed Kashi.

Time: 7:00 p.m.

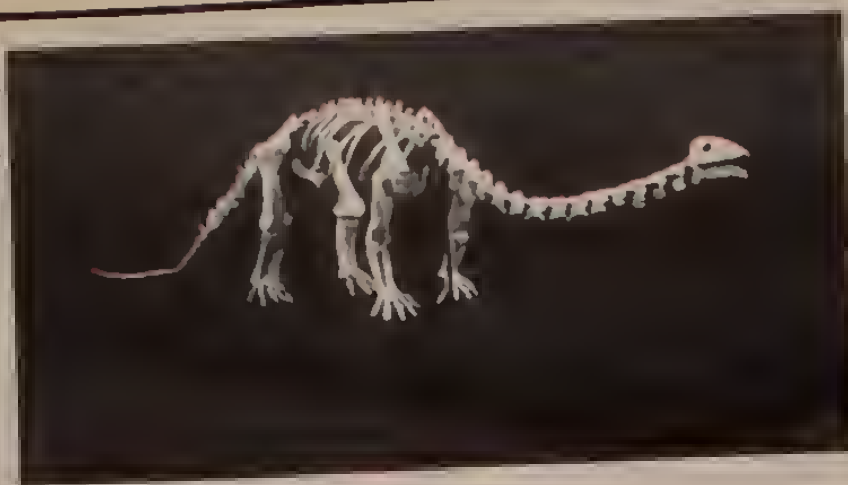
\$15; \$10 for Family/Dual and Higher Members.

Program Code: MM5-04



In a photo by Lori Grinker, Egyptian girls from a Cairo rehabilitation center enjoy a day trip to the pyramids.

David Hughes



In his "foolproof instructions for budding paleontologists," Christopher McGowan shows that a "dinosaur" skeleton, like the one on the left, can be made from the bones of immature chickens from our kitchens.

## Members' Lecture Program

# Dinosaurs in the Kitchen

**Thursday, May 8**

**7:00 p.m.**

**Kaufmann Theater**

**\$6 for Members; \$9 for non-Members**

Program Code: MM1-05

The idea that birds evolved from dinosaurs is over a century old, but it is only during the last few decades that sufficient evidence has accumulated to lend the case scientific support. Chris McGowan, a curator in the Royal Ontario Museum's Palaeobiology Department and the author of *Make Your Own Dinosaur Out of Chicken Bones: Foolproof Instructions for Budding Paleontologists*, will present a slide-illustrated lecture outlining the newest discoveries in the dinosaur field.

The skeletal evidence that links birds to the prehistoric giants includes the discovery that many dinosaurs, such as *Allosaurus*, had a wishbone, as do modern birds. We also know that some dinosaurs were feathered. As a result of new evidence, most paleontologists today believe that birds evolved from dinosaurs — indeed birds are now classified

as dinosaurs, specifically as theropod dinosaurs.

If birds really are dinosaurs, why doesn't a barnyard rooster look more like *Tyrannosaurus*? The link between the two can be seen more readily when a chicken's feathers are taken away and it is reduced to its bones. A chicken skeleton, however, is still a far cry from a dinosaur skeleton seen in a museum. The embryos of chickens, on the other hand, display many more similarities with those of dinosaurs — for example, bird embryos have three free fingers, just like many other theropods.

In fact, it is the way in which a bird's bones become joined together during development that erases much of the similarity with dinosaurs. But because most of the birds found in our kitchens are immature ones whose bones have not fully joined together,

it is possible, according to McGowan, to build a miniature dinosaur (like the one shown in the photograph above) from a chicken skeleton by modifying its bones.

McGowan will illustrate the talk with color slides, including reproductions of dazzlingly stained bird embryos and enlarged views of "dinosaur" skeletons that can be assembled with chicken bones.

The author of five books, including *Diatoms for Dinosaurs: The Size and Scale of Living Things* (Island Press, 1994) and *Dinosaurs, Spitfires, and Sea Dragons* (Harvard University Press, 1991), McGowan is a professor in the University of Toronto's Zoology Department. Copies of his *Make Your Own Dinosaur* book, which whimsically includes three recipes for chicken soups and salads, will be available for purchase and signing at the lecture.

## Members' Walking Tour

# Prospect Park: Geology and History

**Tuesday, May 13**

**Two sessions: 4:00 p.m. and 6:00 p.m.**

**\$15 for Members; \$17 for non-Members**

Program Code: MM2-05

Designed by the same team that created Central Park — Frederick Law Olmsted and Calvert Vaux — Prospect Park was completed in 1874 and incorporates many of the concepts Olmsted and Vaux employed in their first project and perfected in Prospect Park.

At the beginning of this tour, led by Sidney Horenstein, participants will experience an effect specifically planned by Olmsted. They quickly lose their connection with the park's point of entry,

the surrounding cityscape, and step into a land that glaciers built beginning some 20,000 years ago.

As they stroll through terrain that mastodons once inhabited, tour members will proceed through the Vale of Cashmere, alive with a large variety of birds, to Battle Pass, named for its function during the Revolutionary War, and on to the edge of the terminal moraine, the farthest southern reach of the glaciers. From there tour members can see the remains of the plain that

extended for 100 miles out to the sea.

Horenstein will discuss the geological origin of many of the topographic features along the way as well as the geological source of the materials in many of the park's architectural treasures.

This tour was advertised last month in conjunction with a similar tour of Central Park scheduled for April 27. See the Second Notice column above or the March issue of *Rotunda*, page 1, for more details on these tours.

# ROTUNDA

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# Extinct!

## Library Gallery, fourth floor Opening April 12

The Library Gallery on the Museum's fourth floor will mount a new exhibition beginning April 12 that features illustrations of species that are now extinct. The presentation will include masterpieces by zoological artists from as early as the sixteenth century, invaluable records of some of the world's recently extinct creatures. It is only through artists' depictions of vanished animals that we can see what they looked like.

Many of the images used in a special video — "So Short a Season" —

lived among us not very long ago.

Among the illustrations on view will be elegant hand-colored plates representing wallabies and bandicoots from John Gould's *Mammals of Australia* (1883), John Keulemann's lithographs for Lord Rothschild's *Extinct Birds* (1906), original watercolors by Charles Hamilton Smith, and illustrations by such renowned artists as Joseph Wolf and Joseph Smit. Reproductions of some of these originals and of other similar works from the library's collections have been especially produced

## New Library Gallery Exhibition Highlights the "Danger" in Endangered!

included in the Gallery 3 presentation of *Endangered! Exploring a World at Risk* were taken from volumes contained in the library's Rare Book Collection, and some of these will be on display in their original format.

Also included in this exhibition, curated by director of Library Services Nina Root and reference librarian Mary DeJong, will be pencil sketches of a Tasmanian wolf that lived at the Bronx Zoo in the early part of this century. These simple life drawings, executed in 1908 by Museum Exhibition Department preparator Ned Kemble, are a poignant reminder that this now vanished, doglike marsupial

for the Museum Shops as high-quality, large-format postcards in a booklet.

Animal extinctions can be caused by many natural factors, but in the recent past most have been a direct result of phenomena like overhunting, habitat destruction, and the introduction of foreign or exotic species into fragile ecosystems.

These activities are not abating; rather they are becoming more widespread and destructive, as will be apparent to visitors who tour the exhibits in Gallery 3. The threat of extinction faced by so many species today makes this Library Gallery presentation particularly timely.



Drawing by Joseph Wolf (1820-99) of the now-extinct thylacine, also known as the Tasmanian wolf

## Dominion: The Ecological Past, Present, and Future of Humanity

Thursday, May 1  
7:00 p.m.

Kaufmann Theater

\$9; \$6 for Members

Program Code: MM3-05

What lies in store for the planet — and for ourselves — as we enter the twenty-first century? What do we human beings and the "human career" have to do with the disappearance of so many species — the alarming phenomena that lies at the heart of the Museum's current Gallery 3 exhibition, *Endangered!*

Niles Eldredge, a curator in the Museum's Invertebrates Department, explores these vital questions in a lecture based on his book *Dominion: The Ecological Past, Present, and Future of Humanity*, which has recently been released in a paperback edition by the University of California Press. Who are

we as a species and how do we fit into the natural world today? Tracing the human ecological story from 3 million years ago, Eldredge reveals the growing importance of culture over biological adaptation.

The biggest ecological alteration came some 10,000 years ago with the agricultural revolution, forever changing the human ecological niche and triggering an enormous expansion of human population that is still underway. The population explosion itself has triggered a monumental "sixth" extinction — the human transformation of the global surface is now responsible for the loss of some 30,000 species a year.

In this slide-illustrated talk Eldredge, a well-known paleontologist whose books include *Reinventing Darwin: The Great Debate at the High Table of Evolutionary Theory* (John Wiley, 1995) and *Fossils: The Evolution and Extinction of Species* (reprint, Princeton University Press, 1997), will review how humans were freed from dependence on local ecosystems, allowing us to assert our "dominion," as the Bible has it, over the beasts of the field. He will talk about what lies in store for the future unless we quickly change our homocentric ways. Paperback copies of *Dominion* will be available for purchase and signing at the lecture.

G. Grenier 1994



Sterling Hill Mine, ground-level entrance called the Adit, bordered by recovered ore cars

## Members' Field Trip

## Sterling Hill Mine

Saturday, May 17

9:00 a.m.-5:00 p.m.

\$50 for Members; \$60 for non-Members

Program Code: MM5-05

Visit one of the most unusual and enigmatic mineral deposits on our planet on a field trip led by Joseph J. Peters, senior scientific assistant in the Museum's Department of Earth and Planetary Sciences.

The Sterling Hill zinc mine and nearby Franklin deposit in Ogdensburg, New Jersey, hosts approximately 10 percent of all known mineral species — 430 and counting! During a half-hour orientation session before the actual tour gets underway, Peters will provide background material on the geological and chemical processes at work in this region.

Participants will tour the mine's underground tunnels, including the magical "rainbow tunnel," where each tour member will receive a free mineral sample. They will also examine fascinating mining memorabilia in the adjacent Sterling Hill Mining Museum. For a small extra fee, collectors can also take home rocks of fluorescent minerals found in the dumping areas.

A sweater or jacket is advised because the mine is cool — fifty-six degrees year-round. Bring your own lunch for an indoor or (if weather permits) outdoor picnic. A snack bar serves soft drinks and coffee.

## Coming in May

## Lost World: Dinosaurs Through Time

*Lost World: Dinosaurs Through Time* is the working title of an exhibition slated to open in the Museum's Hall of Ocean Life in late May. Exhibits on a whole array of new dinosaur specimens, as well as reproductions used during the making of *Lost World*, the movie sequel to *Jurassic Park*, will be included in this exhibition. It will also feature a superb collection of casts and fossil dinosaurs, interactives, and videos, including clips from the film.

A highlight among the specimens on view will be a totally new model of the 100-foot-long *Mamenchisaurus*, the largest reconstructed dinosaur ever built. Visitors will be able to take a

walk through time and visit the three major phases of the Mesozoic, the era of the dinosaurs, and view important fossils from the Triassic, Jurassic, and Cretaceous periods.

The exhibition also features two special video presentations — one concerning theories on dinosaur behavior and another representing theories on the catastrophic extinction event at the end of the Cretaceous.

The exhibit space will also contain a laboratory and there are plans to have preparators conduct on-site work during exhibition hours. A more complete description of *Lost World: Dinosaurs Through Time* will appear in the May issue of *Rotunda*.



# Spring 1997 Education Department Programs

## Evening Lecture Series

### Sky, Sea, Shore, Spirit, and Subsistence: Northwest Coast Indian Ecology

Two Thursdays, May 22 and 29  
7:00–8:30 p.m.

\$15; \$13.50 for Members  
**Program Code: ED97211L**

In this two-part, slide-illustrated series, National Park Service archeologist Robert S. Grumet explores the complex web of adaptation and belief that has sustained Native American societies throughout the Northwest Coast of North America for more than five millennia. The first lecture, "Ecology and Subsistence," explores the physical world of the northern Pacific Ocean raincoast and its indigenous fish and wildlife populations. The second lecture, "Sea, Shore, and Spirit," focuses on how Northwest Coast people relied on ceremony and ritual to adapt to the physical realities of their world.

### Wonders of Metropolitan New York: The Revolutionary War

Two Tuesdays, May 20 and 27  
7:00–8:30 p.m.

\$15; \$13.50 for Members  
**Program Code: ED97212L**

This series, given by Sidney S. Horenstein, geologist and coordinator of the Museum's Environmental Public Programs, is part of a continuing program on the great variety of intriguing histories to be drawn from the New York City area's natural and constructed features. The first lecture chronicles the military activities and strategies of the American and British armies as they were shaped by the geology of the New York area. The second lecture focuses on war activities in the Hudson Highlands, a natural barrier of easily defended terrain. Horenstein uses archival materials and slides to enhance this unique presentation of history and geology.

### The Science of Jurassic Park

Tuesday, May 20, and  
Thursday, May 22  
7:00–8:30 p.m.

\$15; \$13.50 for Members  
**Program Code: ED97210L**

This two-part series is a journey into the world of dinosaurs and DNA. Rob DeSalle, associate curator of entomology at the Museum, and David Lindley, physicist and former editor at

*Science* and *Nature* magazines, discuss state-of-the-art science in this exciting area of research. How is DNA identified? What is the role of amber in the quest for dinosaur DNA? Can scientists build a dinosaur? Should they? These and other questions are discussed in this lecture series and in the book *The Science of Jurassic Park*, or *How to Build a Dinosaur*. The book will be available for purchase and signing at the lecture.

## Field Trips and Walking Tours

### Cape Cod Whale Watch Weekend 1997

Friday, Saturday, and Sunday, May 16–18

\$450 (double occupancy)  
**Program Code: ED96313X**

This nature weekend offers diverse views of and insights into Cape Cod's natural and cultural history. Events include three four-hour whale watch cruises by private charter, a lecture by leading whale expert Stormy Mayo, and a guided birding walk along the trails of Wellfleet Bay Wildlife Sanctuary. Fee includes transportation, two nights' lodging, meals, boat cruises, lectures, and admission to the bird sanctuary and aquarium. Uta Gore, a natural science instructor in the Museum's Education Department, and Stephen C. Quinn, naturalist and enthusiastic birder, lead this trip.

### Arthur Marks Tours the West Side

\$10 per tour  
All tours: 1:30–3:30 p.m.  
(Program codes given below)

Arthur Marks leads these explorations of three urban neighborhoods. A leader of walking tours since 1965, Marks is a master of historical detail and, with his insider's knowledge, can also point out the homes of past or present celebrities and the places where famous, or infamous, events occurred. Dates and descriptions follow.

### A Duke Ellington Tour: The Growth of Broadway

Saturday, May 10

**Program Code: ED97305X**

Starting at Riverside Drive and 106th Street (Duke Ellington Boulevard), this tour explores the roles of fa-

mous neighborhood figures, like the immortal Duke Ellington, who affected the area's growth and cultural life.

### Chelsea: A Hub of the Arts

Saturday, June 7

**Program Code: ED97306X**

This tour of one of New York's most exciting neighborhoods starts at the Chelsea Hotel, once the home of Bob Dylan, Andy Warhol, and Virgil Thompson. The tour then moves west, examining Chelsea's architecture, its new theater and arts companies, and the history of this vibrant community.

### Life and Dreams on the West Side

Sunday, June 29

**Program Code: ED97307X**

This tour will meet opposite the Christian Science Church at 68th Street and Central Park West and end with refreshments at a residential apartment that affords splendid views of the neighborhood. On this tour participants will see some of the stunning residential and religious architecture of this part of New York City. The tour also makes a brief detour into Central Park.

### Walking Tours of New York's Chinatown

Saturday, May 31

**Program Code: ED96309X**  
or Sunday, June 8

**Program Code: ED97310X**  
10:30 a.m.–1:30 p.m.  
\$25

By shopping with tour participants at vegetable, meat, tea, and herb counters in Chinatown, Karen Kane will introduce them to Chinese foods, regional specialties, and the blend of seasonal, medicinal, and religious beliefs encompassed in Chinese cuisine. Kane, senior lecturer in the Museum's Education Department, has lived and cooked in China and lectured on herbs and food used in Chinese medicine.

## Second Notice

These programs were announced in the March issue of *Rotunda*. To receive a brochure with full listings of Education Department programs, *Spring 1997 and Beyond*, call (212) 769-5310.

### Spring Bird Walks in Central Park

8 Tuesdays, April 1–May 27  
(excluding April 21)

7:00–9:00 a.m.

**Program Code: ED97302X**  
or 8 Wednesdays, April 2–May 21

7:00–9:00 a.m.

**Program Code: ED97303X**  
or 8 Thursdays, April 3–May 22

9:00–11:00 a.m.

**Program Code: ED97304X**  
\$50

### Origin of Species Revisited

Tuesday, April 15  
7:00–8:30 p.m.

\$15; \$13.50 for Members

**Program Code: ED97203L**

### Endangered! Exploring a World at Risk

Four Wednesdays, April 16 to May 7  
7:00–8:30 p.m.

\$30; \$27 for Members

**Program Code: ED97215L**

### Four Urban Forest Walking Tours with William Schiller

\$10 per tour

**(1) Spring Flowers and Trees in Central Park**

9:00–11:00 a.m.

Wednesday, April 16

**Program Code: ED97311X**

or Saturday, April 26

**Program Code: ED97312X**

or Saturday, May 3

**Program Code: ED97313X**

### (2) Northeast Forest, Van Cortlandt Park

Wednesday, April 30

9:30 a.m.–12:30 p.m.

**Program Code: ED97315X**

### (3) Central Woodland, Pelham Bay Park

Wednesday, May 7

9:30 a.m.–12:30 p.m.

**Program Code: ED97316X**

### (4) Palisades National Natural Landmark

Wednesday, May 14

9:30 a.m.–12:30 p.m.

**Program Code: ED97317X**

### Keeping Houses in a Changing World: Shells, Museums, and Economics

Tuesday, April 29

7:00–8:30 p.m.

\$10; \$9 for Members

**Program Code: ED97209L**

### Bird Identification for the Beginner

Saturday, May 3

10:30 a.m.–3:00 p.m.

\$40 (includes sandwich lunch)

Enrollment limited to 25

**Program Code: ED97301X**

## Children's Workshops

A program of eight different workshops are planned, from April 6 through May 18. See the February issue of *Rotunda*, page 10, for details, or call the Education Department at (212) 769-5169.

## Multicultural Programs

### Indigenous Peoples Celebration

Two special ticketed events focusing on Hawaiian dance will be held in conjunction with the Education Department's *Indigenous Peoples Celebration* during the month of April (see page 5). Please note that Members' discounts also apply to students and senior citizens.

### Hawaiian Hula Workshop

Sunday, April 27

2:30 p.m.

Kaufmann Theater

\$12; \$10 for Members

**Program Code: ED97124M**

In this workshop, members of the the Halau Hula Ka No'eau will relate traditional stories in which Hawaii's fire goddess, Pele, roams the oceans creating the Hawaiian Islands. Workshop participants will learn the basic descriptive hand movements used within the art form of hula dancing.

### Traditional Art of Hawaiian Dance Performed by Halau Hula Ka No'eau

Monday, April 28

7:30 p.m.

Kaufmann Theater

\$15; \$12 for Members

**Program Code: ED97123M**

This program will illustrate the history of hula and the cultural beliefs associated with it. Led by Michael Pili Pang, the Halau Hula Ka No'eau group performs dances that originated in Hawaii prior to and after contact with the Western world. Hulas such as those performed for Ali'i ("chiefs") and Pele (the fire goddess), and dances executed to music played on traditional Hawaiian instruments tell of the places and events integral to the history of the Hawaiian people.





# Free Programs

## Members' Guided Hall Tours

The following two programs are free but tickets are required. Please note that reservations are limited to two tickets per person. Call Central Reservations at (212) 769-5200 or use the coupon on page 6, under the heading Membership Programs.

### **The Known, The Unknown, The Unknowable**

Friday, May 16  
6:30 p.m.

Meeting Point: 1st-floor Rotunda, Portrait Room

**Program Code: MM4-05**

We view the brain as the most complex creation in the universe. Its acknowledged abilities astound us; its as yet undiscovered potentials mystify us. The question is, How much is the brain capable of knowing? Is there a limit, or will we someday "know it all" and ultimately know the secrets of the universe?

In this Museum hall tour, conducted by Robert Campanile, participants explore what our brain knows (or thinks it knows), what is unknown but potentially knowable (or so we believe), and what we think may be unknowable (at least at this point in our evolution). Museum hall exhibits and past and current research projects in the institution will serve as guideposts in a journey to examine some of the greatest questions of contemporary science. Campanile will provide the questions and our collective brains will provide the curiosity — or the answers? Who knows?

### **The American Museum Music Halls**

Friday, May 30  
6:30 p.m.

Meeting Point: first-floor Rotunda, Portrait Room

**Program Code: MM6-05**

The Museum's halls are often seen exclusively in terms of science and seldom in terms of their history and atmosphere. Another way of experiencing them would be to combine all three of these aspects. Have you ever walked into a particular hall and sensed a certain feeling? On this tour, Robert Campanile will attempt to enhance that feeling by emphasizing these different aspects.

On this serious yet whimsical journey to some of the Museum's more dramatic halls, Campanile will discuss their science and history as a backdrop to the moods they create. Participants will also listen to a piece of music that intensifies the mood and provides an unusual level of enjoyment of the Museum's magnificent halls. A music cassette will be provided — tour members need only bring along a cassette player (with headphones and fresh batteries please!). Concerto for dinosaurs, anyone?

## Special Family Workshops

The Education Department is inviting families to join them in developing and enlarging the themes of the Museum's new exhibition *Endangered! Exploring a World at Risk*. Through hands-on activities, visits to Museum halls, art, music, literature, and science, families will work on projects dealing with endangered animals and habitats and solutions for the future.

This special series will take place throughout the spring and summer. The programs are free but have a limited enrollment, so tickets are required; reservations are limited to four per family. Call Central Reservations at (212) 769-5200, or use the coupon on page 6, under the heading Education Department.

### **What Must the Animals Think?**

Sunday, April 27

11:00 a.m.–12:30 p.m.

Families with children ages 7 and up

**Program Code: EN3**

Explore animal folklore from around the world and engage in creative writing and drama activities to bring to life the challenges faced by endangered species.

Presented by Marcy Josephy, arts educator and performer

### **The Web of Life!**

Saturday, May 10

11:00 a.m.–12:30 p.m.

Families with children of all ages

**Program Code: EN4**

To bring to life the drama of endangerment, this program introduces us to live birds of prey and explores the role they play in the web of life.

Presented by Volunteers for Wildlife.

### **Endangered on the Internet!**

Friday, May 30

6:30–8:00 p.m.

Families with children age 8 and up

Limited to 10 families

**Program Code: EN5**

Who is endangered? What is endangered? How can you find out? Families surf the internet searching for answers.

Presented by Jay Holmes, Museum science educator.

### **Toads, Turtles, and Salamanders**

Saturday, June 7

11:00 a.m.–12:30 p.m.

Families with children ages 5–7

**Program Code: EN6**

Through stories, songs, and simple hands-on experiences, delight in and discover some common and not so common amphibians and reptiles of the Northeast.

Presented by Betty Boomer, naturalist and environmental educator.



### **What Would You Do Without a Rainforest?**

Sunday, June 22

11:00 a.m.–12:30 p.m.

Families with children ages 5–7

**Program Code: EN7**

Explore the rainforests of the world. What would life be like without it? Come use your mind, your eyes, your ears, your noses, your fingers, and your mouths to investigate the wonders of the rainforest.

Presented by Jennifer Kahn, science educator.

### **Exotic Aquatic Immigrants**

Saturday, July 19

11:00 a.m.–12:30 p.m.

Families with children of all ages

**Program Code: EN8**

Why all those zebra mussels? Families explore the impact of "immigrants" such as the zebra mussel using live organisms, slides, games, and music.

Presented by Steve Stanne and Allyson Bizer, educators from the Hudson River sloop *Clearwater*.

### **Singing with Puppets!**

Sunday, August 17

11:00 a.m.–12:30 p.m.

Families with children of all ages

**Program Code: EN9**

Puppets and music bring to life the themes of endangerment. With Museum exhibits as inspiration,

families compose lyrics to environmental songs and play along with puppets.

Presented by Puppetrix, the husband-and-wife team of award-winning songwriter Bob Killian and the puppets of Fifi Killian.

## Education Department Events

### **Identification Day**

Saturday, April 26

1:00–4:30 p.m.

Hall of Ocean Life

What is it? Bring your shells, rocks, insects, feathers, bones, and artifacts to our twelfth annual Identification Day. Staff members will analyze and give information on the history and classification of all materials presented. However, no appraisals will be given, nor will the Museum identify gemstones. Note that you can also bring water samples; representatives of the New York City Department of Environmental Protection will test them.

### **The Whole Shebang:**

#### **A State-of-the-Universe Report**

Tuesday, May 6

7:00 p.m.

Main Auditorium

Timothy Ferris presents a slide-illustrated talk based on his new book, *The Whole Shebang: A State-of-the-Universe Report*, which details how science envisions the universe today. The book interweaves probing scientific explication with lively accounts of the lives and personalities of the scientists involved. It offers a nontechnical account of the state of cosmological theory together with accessible explanations of such concepts as relativity, string theory, and the new unified theories.

### **Asian/Pacific American Dance and Arts Festival**

Sunday, May 4

12:00 p.m.–5:00 p.m.

Hall of Ocean Life

In conjunction with Asian/Pacific American Heritage Month, a day-long festival will be held featuring Asian and Pacific Island dances, movement-related art forms, and crafts. Participate in movement workshops and art demonstrations and learn about the many Asian and Pacific island cultural traditions, such as classical and folk dance from Japan, China, India, and the Philippines.

### **Indigenous Peoples Celebration**

In the month of April the Education Department will host a series of performances, films, and talks exploring the cultural traditions and social, political, and economic conditions of the world's indigenous peoples. These free programs will take place in the Leonhardt People Center on the weekends of April 5 and 6, April 12 and 13, and April 19 and 20. Call (212) 769-5315 for more information. Two ticketed events will be highlighted — see page 4 for a description of these programs.

## Two-Day Symposium

### **Humans and Other Catastrophes:**

#### **A New Look at Extinctions and the Extinction Process**

Thursday, April 17

### **Preventing Extinction: Advances in Biodiversity Conservation**

Friday, April 18

In conjunction with the exhibition *Endangered! Exploring a World at Risk*, this symposium, sponsored by the Museum's Center for Biodiversity and Conservation, will focus on the nature of extinctions, particularly addressing the role of humans in the extinction process. While both days' lectures are open to the public, the presentations on day one are intended for a scientific audience. The symposium will provide an opportunity for discussion among scientists, educators, policy makers, and others. For information, call (212) 769-5742.



Movies at the Museum

Museum visitors can choose from among film, laser, and laser 3-D programs — some offered on Friday and Saturday nights as double features — now being shown on a regular schedule in the first-floor IMAX® theater.

In addition to the IMAX® films *Cosmic Voyage* and *Stormchasers*, the schedule also includes *Laserwarp*, a laser cartoon that uses over 3,000 frames of Disney®-style animation. It tells the story of two children who find a briefcase and, in an attempt to discover the owner, embark on an extravagant adventure in which they encounter everything from cosmic explosions to dinosaurs.

In *Laser Beatles*, rock along with the Fab Four to pulsing and playful laser light images that accompany favorites such as "The Octopus's Garden," "Let It Be," and "Strawberry Fields."

Live recordings by rock music's Pink Floyd come alive in the spell-binding performances of *Laser*

*Floyd Shines On*, a special 3-D production. With the aid of 3-D glasses, the pulsating, gyrating graphics look as if they are hovering in mid-air, popping right off the giant IMAX® screen as brilliant beams of laser light shoot out overhead — a thrill ride for the ears and eyes.

In laser video operations, a glass tube is filled with a gas. Krypton and argon are most common, but occasionally helium or even neon may be used. The chain reactions between the gas in the tube and other particles cause the energy level to rise and release itself in the form of photons visible as light. Mixed gases are used for the different colors of the spectrum.

For the 3-D effect, ChromaDepth® uses holographic lenses to separate an image according to the chromatic scale. In this process, reds normally appear closest to the observer, while blues are in the extreme background. The other colors fall between these two, according to their chromatic value.

IMAX® Theater Schedule

Monday to Sunday Laserwarp: 10:00 and 11:30 a.m. and 4:30 p.m.  
Cosmic Voyage: 10:45 a.m., 12:30 and 2:30 p.m.  
Stormchasers: 1:30 and 3:30 p.m.

Friday and Saturday Cosmic Voyagers/Laser Beatles: 6:00 p.m.  
Stormchasers/Laser Beatles: 7:30 p.m.  
Laser Floyd Shines On: 9:00 and 10:00 p.m.

SPRING IS HERE

Celebrate

Mother's Day

Sunday, May 11th, from 11am to 4 pm

Serving

Carved Roast Sirloin of Beef

• Whole Roast Chicken •

Specialty Pastas, prepared by our Chef

Spring Salads and a whole lot more!

Dessert and Beverages Included!

Adults \$19.95 Children under 10, \$8.95

Reservations suggested

Call the Garden Cafe at 212-769-5865



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By Phone Call (212) 769-5200 six days a week — Monday through Friday from 8:00 a.m. to 6:00 p.m. and Saturday from 10:00 a.m. to 6:00 p.m. Have your credit card and membership category ready when you call.



By Mail Send the registration form below to Central Reservations, American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192. Make checks payable to the American Museum of Natural History.

Membership Programs

Program Title	Code	Date/Time	# of Membership Reservations	# of non-Membership Reservations	Total Amount Enclosed
					\$
					\$
					\$
					\$
					\$
Education Department					\$
					\$
					\$
					\$
					\$
Hayden Planetarium					\$
					\$
					\$
					\$
Total Amount Enclosed:					\$

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Membership Category: \_\_\_\_\_

Phone (day): \_\_\_\_\_ (eve.): \_\_\_\_\_

Charge my: Amer. Ex. \_\_\_\_\_ Visa \_\_\_\_\_ Master Card \_\_\_\_\_

Card Number: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_

Signature: \_\_\_\_\_ Expiration Date: \_\_\_\_\_



# Museum Notes

**Hours**  
Exhibition Halls  
Mon.-Thurs. & Sun. ....10:00 a.m.-5:45 p.m.  
Fri. & Sat. ....10:00 a.m.-8:45 p.m.  
The Museum Shop  
Mon.-Thurs. & Sun. ....10:00 a.m.-5:45 p.m.  
Fri. & Sat. ....10:00 a.m.-7:45 p.m.  
The Junior Shop  
Mon.-Fri. ....10:00 a.m.-4:45 p.m.  
Sat. & Sun. ....10:00 a.m.-5:45 p.m.  
The Museum Library  
Tues.-Fri. ....11:00 a.m.-4:00 p.m.

**The Natural Science Center**  
There are many wild places in the New York City area, and the Center features these habitats' plants and live animals. Closed holidays.  
Tues.-Fri. .... 2:00-4:30 p.m.  
Sat. & Sun. .... 1:00-4:30 p.m.  
Thursday Storytelling. .... 3:00 p.m.

**Museum Dining**  
**Diner Saurus Fast Service Eatery**  
Daily ....11:00 a.m.-4:45 p.m.  
**Garden Cafe**  
Reservations: (212) 769-5865  
Lunch: Mon.-Fri. ....11:30 a.m.-3:30 p.m.  
Dinner: Fri. & Sat. ....5:00-7:30 p.m.  
Lunch: Sat. & Sun. ....11:00 a.m.-4:00 p.m.  
**Whale's Lair**  
Fri. ....3:00-7:30 p.m.  
Sat. ....Noon-7:30 p.m.  
Sun. & most holidays ....Noon-4:00 p.m.  
**Snack Carts**  
Sat. & Sun. ....11:00 a.m.-4:00 p.m.

# List of Exhibits

Exhibit	Location	On View Until
<i>Life on Mars?</i>	Hall of Meteorites 1st floor	5/1/97
<i>The Tongass: Alaska's Magnificent Rain Forest</i>	Akeley Gallery 2nd floor	6/15/97
<i>Up in Central Park</i>	Gallery 77, 1st floor (opens April 4)	8/14/97
<i>Endangered! Exploring a World at Risk</i>	Gallery 3 3rd floor	9/1/97
<i>Extinct!</i>	Library Gallery, 4th floor (opens April 12)	9/30/97

**Entrances**  
During Museum hours visitors can enter the building through the 77th Street entrance, the first- and second-floor Roosevelt Memorial Hall entrances (79th Street and Central Park West), or through the subway entrance. **Visitors attending programs after hours can enter the building at 79th Street and Central Park West.**

**Phone Numbers**  
Museum information .....(212) 769-5100  
Planetarium information .....(212) 769-5900  
Education Department.....(212) 769-5310  
Discovery Tours.....(212) 769-5700  
.....toll-free outside NY State: (800) 462-8687

IMAX\* .....(212) 769-5034  
Development .....(212) 769-5151  
Communications.....(212) 769-5800  
Volunteer Office.....(212) 769-5566  
Museum Shop .....(212) 769-5150  
Library Services .....(212) 769-5400  
Natural History magazine .....(212) 769-5500  
Membership Office .....(212) 769-5606  
Members' Birthday Parties .....(212) 769-5542  
Planned Giving Office.....(212) 769-5119  
.....toll-free outside NY State: (800) 453-5734  
Central Reservations.....(212) 769-5200  
World Wide Web Site.....<http://www.amnh.org>

**Parking:** Call the Membership Office at 769-5606 for information about alternative parking.

# Give Your Child a Birthday Party at the Museum



Select one of our extraordinary party themes, all of them combining two hours of learning and fun in the endlessly fascinating environment of the Museum.

**African Safari** — an opportunity to observe gorillas, elephants, lions, and giraffes in their native habitats.

**Aquanaut** — a search for the largest animal that ever lived in the Hall of Ocean Life.

**Dinosaurs** — an examination of some of the Museum's most fascinating inhabitants in the new fourth-floor dinosaur halls.

**Plains Indians** — an expedition into the Native American cultures of the Great Plains, from the Mississippi Valley to the Rockies.

**Leapin' Lizard** — an exploration of the world of amphibians and reptiles.

All these parties include an introduction to, and demonstration of, artifacts; a tour through Museum halls; and an arts and crafts project, games, and refreshments.

The parties are limited to Members at the Contributor level and above. The fees cover all materials and the services of Museum staff, who customize every party to suit the individual needs of the birthday child and family.

For information and to find out how to reserve a time and place for your child's birthday party, please write to us or call the Membership Office at (212) 769-5542.

The Membership Office would like to thank the following young Members who celebrated their birthdays here recently: Andrew Gregory, Jack Kraus, Travis Fitzpatrick, Lee Shleifer-Katz, Oliver Weerasinghe, Benjamin Resnick, Jacqueline Carroll, Dana Gordon, Byron Callan, Daniel Radwaner, Christopher Freyberg, Jeremy Orloff, and Katie Yellin.

# Note to Members

## Catch the Express

Members can now look forward to more efficient service on the week-ends. A special express desk in the second-floor Rotunda will process entry tickets only for those carrying Membership cards. If you carry your card and are waiting only for Museum admission, come in at the Rotunda entrance, and catch the express!

## Parking Lot Closure

The visitor parking lot is temporarily closed while the Museum upgrades its parking facilities. If you wish to receive a detailed map and list of parking garages in the vicinity of the Museum, please call one of our representatives in the Membership Office, Monday through Friday, 9:00 a.m.-5:00 p.m., at (212) 769-5606.



WILDLIFE CONSERVATION SOCIETY  
FOUNDED IN 1895 AS THE NEW YORK ZOOLOGICAL SOCIETY

# BRONX ZOO

## FREE CHILD'S ADMISSION

WHEN ACCOMPANIED  
BY PAYING ADULT

When you present this coupon at the Bronx Zoo admission gates, a child (2-12) gets in FREE when accompanied by a paying adult.

- Valid through October 31, 1997.
- Not transferable to food/merchandise.
- Not redeemable for cash value.
- Not valid in conjunction with any other discount offer(s).
- One coupon per family at 1 hour.

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_





# Sun Mon Tues Wed Thurs Fri Sat

## April 1997

### American Museum of Natural History

**6 Daylight Savings begins**  
**Indigenous Peoples Celebration**  
Education Department programs.  
Leonhardt People Center. Page 5.

**7 10:30 a.m.**  
John Burroughs  
Association annual meeting  
**12:00 noon**  
John Burroughs Association  
annual lunch and book  
awards  
**7:30 p.m.**  
Planetarium lecture series:  
*Frontiers in Astrophysics:*  
"The Search for Intelligent  
Life in the Universe."  
Speaker, Jill Tarter.  
Kaufmann Theater. Program  
Code HP110L.

**8 6:00 p.m.** The 67th  
Annual James Arthur  
Lecture: "The Human  
Cerebral Cortex: Exceptional  
Capabilities and Unique  
Vulnerability." Speaker, John  
Morrison, Mt. Sinai Medical  
School.  
**7:30 p.m.** Linnaean Society  
of New York. Leonhardt  
People Center. Free.



**9 5:30 p.m.** New York  
Mineralogical Society.  
Linder Theater. Free.

**10 7:00 p.m.** Expedi-  
tion: *African*  
Biodiversity Conservation.  
Slide-illustrated lecture.  
Speaker, Joel Cracraft.  
Kaufmann Theater. Page 2.

**Take Note!**  
The Visitor Parking Lot is  
temporarily closed while the  
Museum upgrades its parking  
facilities. To receive a detailed  
map and list of parking garages  
in the vicinity of the Museum,  
call the Membership office at  
(212) 769-5606 during business  
hours.

**12 Indigenous Peoples  
Celebration**  
Education Department programs.  
Leonhardt People Center. Page 5.  
**Extinct!** A new exhibition in the  
fourth-floor Library Gallery, opens to  
the public.

**1 April Fool's Day**

**2 7:45 p.m.** Amateur  
Astronomers Association  
of New York. "Globular Clus-  
ters." Speaker, Carlton Pryor.  
Kaufmann Theater. Free.

**3**

**4 Up in Central Park.**  
A new exhibition in the  
first-floor Gallery 77, opens  
to the public.

**5 1:00 and 3:00 p.m.**  
Two sessions. Bing! Bang!  
Boom! The Ethos Percussion Group.  
Musical program. Page 1.  
**Indigenous Peoples Celebration**  
Education Department programs.  
Leonhardt People Center. Page 5.

**13 Indigenous Peoples  
Celebration**  
Education Department programs.  
Leonhardt People Center. Page 5.

**14**

**15 7:00 p.m.** New  
York Entomological  
Society. Linder Theater. Free.

**16**

**17 7:00 p.m.** New  
York Microscopical  
Society. Linder Theater. Free.

**18 6:00 p.m.** The  
"Ex" Files. Members'  
Guided Hall Tour with Robert  
Campanile. Free. Tickets  
required. Page 2.

**19 Indigenous Peoples  
Celebration**  
Education Department programs.  
Leonhardt People Center. Page 5.

**20 10:30 a.m.** New York  
Turtle & Tortoise Society.  
Room 319. Free.

**21**

**1:00 p.m.** New York Mycological  
Society. Edith C. Blum Classroom.  
Free.

**22 First Day of  
Passover**  
**7:30 p.m.** Linnaean Society  
of New York. Leonhardt  
People Center. Free.

**23**

**24**

**25**

**26 12:00-4:00 p.m.** The  
Discovery Room is open.  
Leonhardt People Center. Museum  
Magic theme for the month:  
"Dabbles or Dots, Strips or Spots."

**2:00 p.m.** New York Paleontological  
Society. Room 319. Free.  
**Indigenous Peoples Celebration**  
Education Department programs.  
Leonhardt People Center. Page 5.



**27 10:00 a.m. or 12:00 or  
3:00 p.m.**

Three sessions. *Central Park: Geol-  
ogy and History.* Members' Walking  
Tour with Sidney Horenstein. Page 2.  
**12:00-4:00 p.m.** The Discovery  
Room is open. Leonhardt People  
Center. Museum Magic theme for the  
month: "Dabbles or Dots, Stripes or  
Spots."

**28 Good Friday**

**6:30 p.m.** Eggciting  
Eggschibits. Members' guided  
hall tour, led by Robert Cam-  
panile. Page 2.

**29 7:00 p.m.** Middle  
East Journals: Natu-  
ral History Photographers.  
Slide-illustrated lecture.  
Speakers, Lori Ginkler and  
Ed Kashi. Linder Theater.  
Page 2.

**30**

#### Carry the Card!

Card-carrying Members can  
take advantage of our new  
express line on weekends if  
they enter at the second-floor  
Rotunda, on Central Park  
West. Express line tickets are  
for Museum admission only.  
So carry the card!

Printed on recycled paper

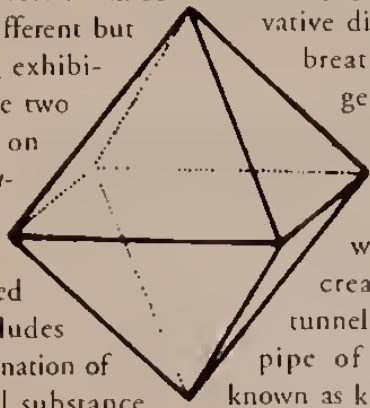




## Sneak Previews!

### All About Diamonds

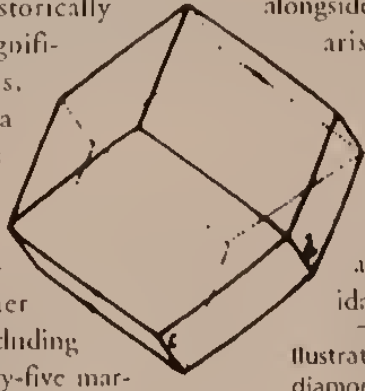
In late autumn the Museum will be hosting two very different but equally fascinating exhibitions. The larger of the two and the first to open, on November 1, is *The Nature of Diamonds*, the most comprehensive exhibition ever mounted on the subject. It includes both an in-depth examination of diamonds as a natural substance, with many exhibits focusing on their



unusual physical properties, and innovative displays of dozens of breathtaking crystals, gems, jewels, and objets d'art. Visitors will be able to walk through a recreation of a mine tunnel into a diamond pipe of volcanic rock, known as kimberlite, to see a diamond and samples of rocks



from the Earth's mantle embedded in the pipe wall. Historically and scientifically significant gems, jewels, and royal regalia from collections around the world can be viewed inside a walk-in diamond vault. Other diamond pieces, including a collection of twenty-five marriage and betrothal rings ranging



over five centuries, will be on view alongside portraits that place this aristocratic jewelry in its human and historic context. And cutters from the diamond trade will demonstrate techniques for faceting diamonds in a re-created diamond lapidary workshop.

Illustrations of crystalline forms of diamonds from J. Mawe, *Travels in the Interior of Brazil*

### Honoring an Expedition

In mid-November the Museum begins its celebration of the 100th anniversary of one of its most significant scientific endeavors — the Jesup North Pacific Expedition (1897–1902). *Drawing Shadows to Stone: Photographing North Pacific Peoples 1897–1902* brings together a collection of about one hundred archival images — portraits and photographs depicting scenes from daily life — which will be on display in Gallery 77 alongside artifacts collected on the expedition, some of them

pictured in situ in the archival photos. Taken by members of the Jesup Expedition, these photographs provide an early example of the revolutionary use of the camera as an anthropological

early anthropological fieldwork. Among the remarkable artifacts included are ceremonial masks and several redigitized field recordings originally registered on wax cylinder.

series entitled *People of the Circumpolar Region*. A new web site is also being constructed that will allow online visitors to explore the full range of Jesup Expedition material.

**The events planned around this celebration will honor the legacy of Franz Boas, leader of the expedition and the father of American anthropology.**

tool, and a compelling visual and audio record of northern peoples at the turn of the century, revealing the scope of

The celebration encompasses a five-day scholarly conference, a film and performing arts festival, and a lecture

Turn to page 2 for a discussion of a shaman's coat from the far north of Siberia, one of the exhibition highlights, written by Museum curator Laurel Kendall and conservator Judith Levinson. More detailed descriptions of both exhibitions will appear in the September and October issues of *Rotunda*.

### AT THE AKELEY GALLERY

### Dzanga-Ndoki Rainforest: The Making of an Exhibition

Late last year, the Museum sent an expedition to the Dzanga-Ndoki rainforest, located in the Congo Basin, in the southwestern corner of The Central African Republic.

The team of twenty scientists from the Departments of Ornithology and Mammalogy, as well as exhibition preparators and designers and audiovisual technicians, collected materials over a period of five weeks for an exhibit that will be the centerpiece of the Museum's new Hall of Biodiversity, scheduled to open in 1998. The 2,500-square-foot diorama — the world's largest — will depict the tremendous diversity of plants and animals in the Dzanga-Ndoki and the efforts being made to conserve it. Working in this magnificent habitat, scientists have so far identified about 100 species of mammals, 300 of

birds, hundreds of trees, and thousands of insects and butterflies. The exhibition shows what was involved in the first phase of re-creating this biologically diverse piece of rainforest. In more than seventy-five

photographs, visitors can see the team collecting plants and animals, making molds and casts, and interviewing the BaAka and other peoples native to the forest. Molds and other tools used by the team are also on view.



This plasticene cast impression, taken on the expedition, of a blue duiker (African antelope) will be used to cast a body for taxidermy.



# Second Notice

## Dinosaur State Park and the Connecticut River Valley

Wednesday, July 9  
Program Code: MM1-07

Members' day trip by chartered boat and coach through the scenic Connecticut valley, including a stopover tour of Dinosaur State Park, renowned for the thousands of dinosaur tracks found there in 1966.

9:00 a.m.—7:00 p.m.  
\$70 and open only to Family/Dual and Higher Members  
(includes charter bus and boat transportation)

## Live from Mars!

Sunday, July 6  
Wednesday, July 9

The Museum, together with electronic field trip producer Passport to Knowledge, sponsors two live broadcasts of images from the unmanned spacecraft *Mars Pathfinder* on its mission to the "red planet." The broadcasts, as well as a number of related programs and activities, including workshops, will be offered all during *Mars Week* — July 6–10. Call Central Reservations at (212) 769-5200 for more information.

Broadcast viewing and workshops are free.  
Lectures are \$7 for Members; \$8 for non-Members.

## Education Department Needs Teaching Volunteers

## It's Time for You to Teach!

The Education Department Teaching Volunteer program is expanding.

We need you! You don't have to be a teacher. You do

have to like kids eight to fifteen years old and to be available one morning a week. We lead exciting activities, ask a lot of probing questions, and

enjoy ourselves. Contact the Manager of the Education Volunteers, Craig Vitamanti, in the Education Department at (212) 769-5306.

From *Drawing Shadows to Stone:*  
*Photographing North Pacific Peoples 1897–1902*

## The Magic Coat

Covered with metal disks, bells, and pendants, the Siberian shaman's coat is more than a garment. Its metal pieces, clanking and flashing in the firelight, combine with the shaman's chant, his shaking body, and the throbbing of his drum to create an atmosphere of magic

theater. As the entranced shaman flies to the upper world, his flapping sleeves, deeply fringed and topped with narrow, bone-like metal strips, become birds' wings. Metal disks are the sun and moon that light his path to the upper and lower worlds. They also shield his body from

malevolent "counter-magic."

Museum visitors will soon have an opportunity to examine first-hand one of these remarkable garments. The Anthropology Department's Objects Conservation Lab has been preparing a Yukaghir shaman coat collected around 1900 for the exhibition *Drawing Shadows to Stone* (see story on page 1). Stiff and crumpled from a century in storage, the coat was first carefully reshaped. The surface was gently cleaned. The heavy metal attachments on the fragile reindeer hide pose a particular challenge since any careless movement could easily cause the coat to rip.

The coat's hide is shaped in an intricate pattern of dyed and undyed patches, creating a form suggestive of a skeleton and symbolizing a shaman who dies and is reborn in the process of initiation.

—Laurel Kendall, Asian  
Ethnographic Collections

—Judith Levinson, Chief  
Conservator, Anthropology

Photo by W. Jochelson, 1900



This Jesup Expedition photo, taken by W. Jochelson ca. 1900, shows a Yakut shaman wearing his special coat.

## September Hall Tours for Members

## Ace Campanile: Diorama Detective

Friday, September 5; 6:30 p.m.  
Free and open only to Family/Dual  
and Higher Members  
Tickets required; limited to two  
Program Code: MM1-09

Move over Ace Ventura, there's a new detective in town! Lost something in a diorama? Can't find a buffalo in the bison diorama? Don't know what goes into making a diorama? Then join diorama detective Ace Campanile. With laser pointer in hand (and tongue-

in-cheek) the Ace will search the Museum's dioramas for hidden trivia, oddities, subtle craft techniques, and amazing stories (and maybe a few pets!).

The craft, the history, and the secrets of the diorama are sometimes as interesting as what's actually in them!

## The High Note

Friday, September 19; 6:30 p.m.  
Free and open only to Family/Dual  
and Higher Members  
Tickets required; limited to two  
Program Code: MM2-09

The halls are alive, if not with the sound of music then with musical instruments. Our major anthropology halls display an interesting and wonderful array of them.

Almost a musical instrument encyclopedia in itself, the collection allows us to travel from continent to continent, showcasing the evolution of music through different cultures and time periods.

Join our band leader

Robert Campanile and embark on a visual journey of music-makers of the world enhanced by a discussion of how these instruments and the music they make have influenced our physical, intellectual, and emotional processes as individuals and societies.

Whether it comes from a bone flute or from a digital keyboard, humans have always needed instruments' musical energy to reach the "high note" of being.

## ROTUNDA

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# Did You Know ?

by Nina J. Root

The American Museum of Natural History's first building is 120 years old this year. No longer visible from the street, except for a glimpse from Columbus Avenue, it is the center of the Museum's twenty-one-building complex. The architects Calvert Vaux (Frederick Law Olmsted's partner in the development and design of Central Park) and Jacob Wrey Mould designed the building to the specifications drawn by Museum founder Albert Smith Bickmore.

Vaux and Mould designed a high Victorian Gothic

afternoon light would illuminate the interior. Since electricity had not yet reached the Upper West Side, this was necessary to augment the gas light.

Manhattan Square, the site provided by the city, was described by Louis Gratacap, a Museum curator, as "a rugged and disconsolate tract . . . the immediate prospect of utter desolation was complete; it embraced old farms, ruinous landmarks of ancient New York, bewildering mazes of hovels clustered together over swelling rocky ledges . . . and the daily stage that rolled up

**The Museum's original building is no longer visible from the street, except for a glimpse from Columbus Avenue.**

building with polychromatic pointed arches and banding at each floor. Bickmore specified a rectangular building placed on a north and south axis so that the morning and

the spacious boulevard to Manhattanville added a suggestive touch of antiquity to all."

The cornerstone was laid by President Ulysses S. Grant



By 1895, the Museum had already expanded and added the first facade (left), with its double staircase, on 77th Street. In a contemporary, ariel view of the Museum (right), the top section of the original building, with its pointed arches, can be seen at the center, directly behind the 77th Street facade.



on June 2, 1874, with Bickmore, the Museum's trustees, the mayor, governor and many dignitaries in attendance. According to an article that appeared at the time in the *New York Sun*: "When the cornerstone was laid . . . the goats looked on at quite an imposing ceremony." The silver Tiffany trowel used by Grant for laying the cornerstone was stolen.

The interior of the building featured cast iron columns, with specially designed capitals

incised with the Museum's monogram, and a barrel-vaulted ceiling. These can be seen again in the elegantly restored fourth-floor Hall of Vertebrate Origins. Parts of the facade can also be seen in the alcoves off the Hall.

Pier cases specified by Bickmore were placed between two windows with lancet windows at the wall end of the case to permit natural light to illuminate the displays. Although this technique was hailed as a major advance in

museum design, sunlight eventually bleached, dried, and destroyed the artifacts and specimens. The flooring was of an intricate tile design and can still be seen on the first floor Northwest Coast Indians Hall.

The new edifice once called the Bickmore Building and now referred to as "Building 1" was opened on December 22, 1877. Bickmore's vision for his museum can be truly appreciated now that we can see his concept restored in the fourth-floor dinosaur halls.

## Members' Summer Excursion

# The Thimble Islands and Beyond

Thursday, August 21

8:00 a.m.—4:00 p.m.

\$65 for Members; \$75 for non-Members

Program Code: MM3-08

Join Sidney Harenstein on a summer excursion that includes visits to a Connecticut Museum and working granite quarry, a cruise through the Thimble Islands, and a walk through a nature preserve.

At our first stop, New Haven's Peabody Museum, see the marvelous dioramas on Connecticut natural history, as well as *The Age of Reptiles* mural, a magnificent work of both art and science.

Our trip continues by coach to the village of Stony Creek on the Connecticut

shore of Long Island Sound. There we join a chartered boat for an hour-long, narrated cruise of the unique Thimble Islands, a group of twenty-eight rocky islands and islets, each with unique habitations. Participants will learn how the islands fit into the overall geological scheme of the Long Island Sound Basin.

Our day trip continues with a short ride to Stony Creek's nearby granite quarry to examine some of the new and old methods of removing stone from its bedrock. The granite in this quarry was

formed one billion years ago. Samples can be taken from the great piles of stone judged unfit for use.

Finally, at a nature preserve in the area surrounding the quarry, participants can round off this excursion by taking a leisurely walk along some of its trails. Bird watchers may want to stay in the area around the marsh, where there is unusually good birding.

Sturdy walking shoes and clothing for a variety of temperatures is advised. Participants should bring their own box lunch.



Above: The harbor at Stony Creek  
Left: An islet of the Thimble Islands with a single habitation



The newly built Section 1 of the Museum, ca. 1883, on its Manhattan Square site, "a rugged and disconsolate tract."

Robert Campanile — in Performance

# The Catcher in the Rye

Friday, August 1; 6:30 p.m.

Miriam and Ira D. Wallach

Orientation Center, 4th floor

For Family/Dual and Higher Members only

Free — Tickets required; limited to two

Program Code: MM1-08

It's probable that most of us at one time or another have picked up the novel *The Catcher in the Rye*, either because we were interested in reading it or because school or family had "banned" it.

Whatever the reason, one thing usually happened — it touched emotions that the reader could strongly identify with, and that is the genius of

J.D. Salinger's novel. New Yorkers especially got in touch with the city, and, of course, there's also the great perspective on this Museum through the main character's eyes.

In a special reading, Robert Campanile will take participants again through Holden Caulfield's adolescence. After all, it is summer and it is the time to feel young again!





Children look on as staff from the recently created Hudson River Park participate in an experiment on fauna from the Hudson River.

#### Members' Family Program

## Ecology and Geology of Hudson River Park

Saturday, September 20

Two sessions: 10:00 a.m.–1:00 p.m. and 2:00–5:00 p.m.

\$20 for Members; \$25 for non-Members

Limited to 25 persons per trip; rain or shine

Program Code: MM3-09

Participate in a special program in ecology and geology with the staff of the recently created Hudson River Park. Together with Sidney Horenstein, coordinator of the Museum's Environmental Public Programs, fish with a master angler and pull traps from the river to discover the hidden fauna and flora of the Hudson. Examine the fish and other animals caught in the traps under microscopes to reveal some of the aspects of river ecology, and learn how to identify the diverse fauna.

The Hudson is one of the great rivers of America, with a complex geologic history. You will be surprised to learn how many different kinds of fish live in its waters. You will also have

the opportunity to test river water for temperature, turbidity, and other important characteristics.

The program, which also includes ecological and geological walks along the river, takes place just north of Battery Park City in Tribeca. Here you will see firsthand how sun, wind, and tides interact to change the Hudson's appearance hourly. You will also learn how the Hudson, cut off from the city for generations by commerce, is now being returned to New Yorkers through plans for a new five-mile-long park development along the waterfront.

This program is a great occasion for a family outing. All necessary equipment will be supplied.

## Education Department Programs

### Field Trip

#### Hawk Watch Migration

Friday, Saturday, and Sunday, September 26–28

\$300

Limited to 20 adults

Program Code: ED97323X

Join us for the "greatest show above earth" along the Kittatinny Ridge. Every autumn, southerly winds carry a magnificent display of migrating hawks, falcons, and other raptors into the area where they can be seen soaring in kettles on updrafts and thermals over mountain ridges. During this informative weekend, participants will learn to identify different raptor species and practice new birding skills. Field trips, including a stop at Bashakill Marsh, a birder's paradise and the second largest freshwater swamp in New York State, will be combined with evening presentations and a live bird show featuring close encounters with these majestic birds. Fee includes transportation, two nights' lodging, meals, lectures, and presentations. Lodging will be provided at the Pocono Environmental Education Center (PEECV) in rustic cabins that sleep two to six persons, and include a full bathroom.

### Free Programs

#### Special Family Workshops

The Education Department is inviting families to join them in developing the themes of the Museum's new exhibition *Endangered! Exploring a World at Risk*. The programs are free, but have a limited enrollment. Tickets are required.

#### Exotic Aquatic Immigrants

Saturday, July 19

11:00 a.m.–12:30 p.m.

Families with children of all ages

Program Code: EN8

#### Singing with Puppets!

Sunday, August 17

11:00 a.m.–12:30 p.m.

Families with children of all ages

Program Code: EN9

You can make reservations for these programs by calling Central Reservations at (212) 769-5200, or by filling out the coupon on page 6. Please note that Members' prices also apply to students and senior citizens. For a copy of the Education Department's fall programs brochure, call (212) 769-5310.

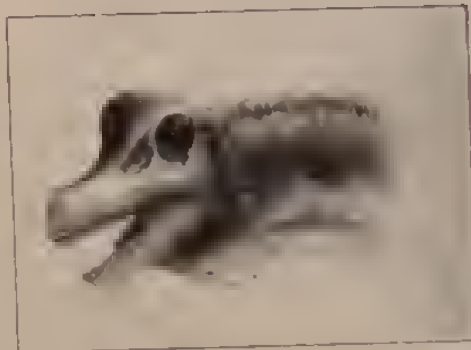
## Childrens' Summer Workshops

### Featuring *The Lost World: The Life and Death of Dinosaurs*

This summer our childrens' workshop schedule has expanded to include multiple sessions focusing on two exhibitions now on view at the Museum: *The Lost World: The Life and Death of Dinosaurs* and *Endangered! Exploring a World at Risk*. An additional workshop will focus on turtles and tortoises — our "prehistoric survivors."

Naturalist June Myles will be at the helm again to conduct these entertaining and educational workshops, introducing children to some fascinating facts and helping them to construct an arts-and-crafts item to take home.

The workshops are appropriate for children ages 5 through 9 and are open to children of Family/Dual and Higher Members only. Reservations can be made by calling Central Reservations at (212) 769-5200 or by using the coupon on page 6.



#### Dinosaurs Lost and Found

Five mornings

Monday, August 11

to Friday, August 15

10:30 a.m.–12:00 p.m.

Program Code: MM2A-08

The dramatic discoveries of new dinosaur fossils over the past twenty years are on view in the summer's hottest exhibition — *The Lost World: The Life and Death of Dinosaurs*. We'll learn the facts but also enjoy the fantasy. We'll discover the friends and foes of the Triassic, the Jurassic, and the Cretaceous. Of course, we'll also work on a reconstruction of our own to take home. Fee includes exhibit admission. Fee: \$21

#### Turtles or Tortoises? A Prehistoric Survivor

Two Afternoons

Tuesday and Thursday

August 12 and 14

1:00 p.m.–2:30 p.m.

Program Code: MM2C-08

#### Gator Hole

Three Afternoons

Monday, Wednesday, and Friday

August 11, 13, and 15

1:00 p.m.–2:30 p.m.

Program Code: MM28-08

In this workshop we will first inspect the alligator and the crocodile to understand their special designs for species success. Then we'll visit *Endangered! Exploring a World at Risk*, the exciting exhibition in Gallery 3, to learn why these crocodilians and so many other creatures are in trouble in spite of their superlative designs. We'll make a gator to take with us wherever it may want to go. Fee: \$17

Hardly changed for 200 million years, turtles are the only reptiles that have a body in a box — a bony box, that is! Only the head, limbs, and tail protrude. No wonder they've survived! In this workshop, learn their fascinating ways and construct a turtle to take home. Fee: \$17



# In Black Rock Forest

## Of Bugs and Biodiversity: Lessons of the Forest

The name of the course offered by the Museum's Education Department to Manhattan high school students was "Life in the Age of Bugs," and it consisted of five classroom sessions and a field trip to Black Rock Forest. For some of the Education Department staff, Black Rock Forest has become "a part of our backyard." Located less than two hours from New York City, near Cornwall, New York, it is a 3,785-acre natural woodland in the Hudson Highlands, administered and used as a field station by the Black Rock Forest Consortium, whose members include the American Museum of Natural History. After-school workshops for high school students, special pre-college programs for minority youth, and an Ecology Club that holds weekly meetings are some of the Education Department programs that take advantage of this unique natural preserve that features a wide diversity of habitats, ranging from young to mature forests, both deciduous and evergreen, to numerous streams, ponds, and natural wetlands.

Black Rock Forest is a place where universal concepts can be taught because it represents a pristine piece of forest with relatively undisturbed ecosystems, according to Museum entomologist and class instructor Kefyn Catley. A spider systematist who subtitled his course "Bugs That Run the Earth," Catley feels that bugs illustrate the biodiversity argument very well. He introduces the concept of biodiversity with a study of the arthropod community found in the forest leaf litter. Catley designed his course so that students learn not only the morphology and biology of bugs, but also the individual role each one plays in the litter ecosystem. He emphasizes the interdependency and interconnectedness of each of its elements.

It was a cloudy Saturday in May when twelve of the students from the course gathered around the school bus parked outside the Museum for their field trip to the forest. Catley and Jay Holmes, an instructor from the Education Department who supervises the workshop programs and heads up the Ecology Club, had been there a week earlier to lay pitfall traps for bugs in designated areas. The bus was met at its destination by Black Rock's forest manager John Brady, who accompanied the group throughout the day, pointing out features of the forest's plant and animal life that usually go unnoticed. Catley collected the pitfall traps and the students, armed with trays, collecting vials, and magnifying glasses, did some of their own collecting and observing. There were excited shouts when millipedes were identified and intense interest generated when Brady pulled back large rocks at the edge of a pond to reveal some of the species of salamanders that live under them. The students also collected samples of leaf litter by carefully gathering armfuls of forest matter from the surface of the soil and depositing it in large sacks.

At their next classroom sessions, the students sorted and inspected the animals and learned to identify taxonomic groups. Then they examined their roles in the life of the forest. Catley hoped to bring home to them how the general principle, the interconnectedness of all the living elements in the forest, applies to the universal concept of biodiversity as the planet's, and therefore our own, life support system.



A view of Sutherland Pond in Black Rock Forest

## The Making of a Living Laboratory

Black Rock Forest's preservation as a natural woodland dedicated to education and research — a living laboratory — owes much to the far-sightedness of Ernest Stillman, whose family bought up the many small tracts of land that make up the area in the early 1900s. The original forest,

which first developed 12,600 years ago following the retreat of the Pleistocene glaciers, underwent its most profound changes beginning with human settlement, first by native Americans and then by European settlers. The least rugged parts were developed as

homesteads, farms, and orchards, but, although artifacts can still be found in the area, the Stone House, located in its center and built in 1830, is the sole surviving structure. According to a Consortium publication: "The forest at the turn of the century was badly degraded and bore little resemblance to the marvelous forest we see today."

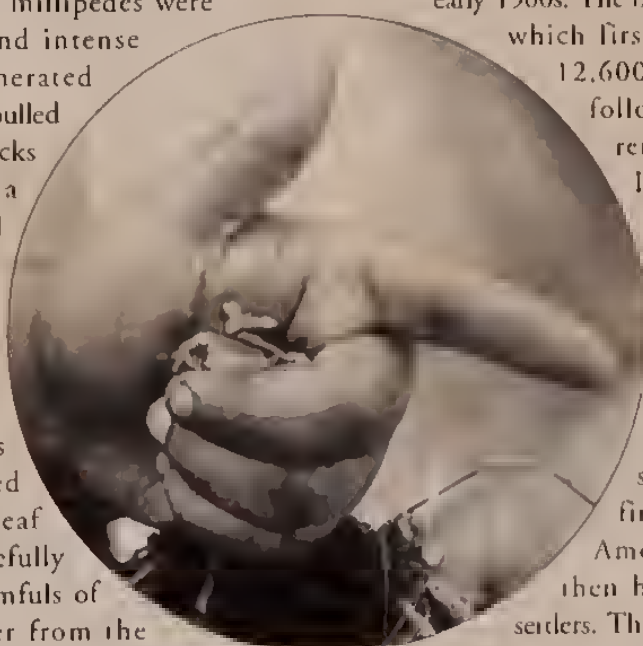
In 1926, Stillman decided to incorporate the tracts of land and, using techniques of practical forestry just then beginning in America, return it to

productive forest use, hiring a full-time forester and woods crew. The forest slowly returned to a state of health. Stillman, who died in 1949, left the land to Harvard University, which continued forestry management and utilized the area for some silviculture research.

In 1989 the land was purchased by the Black Rock Forest Preserve, a non-for-profit corporation that leases the property and its facilities to the Consortium — eighteen educational and research institutions from the greater New York City and Hudson Valley regions who share in its use and upkeep. Their mission is "to promote scientific research and excellence in education, while carefully managing the ecosystem" of the forest.

The current Forest Director, William Schuster (only the fourth in a line of succession reaching back to 1926), briefly interviewed in his headquarters at the edge of the forest, has a list of twelve research projects for 1997 currently being conducted by scientists from consortium-member institutions. They range from a study measuring precipitation and stream-flow chemistry to a project entitled "Ant-Guest Beetles and their Hosts: Friends or Foes?" Schuster says the research at the forest leads to an average of five peer-review scientific publications yearly. School groups visit the forest at the rate of about twenty per institution each year, and the woodland also hosts approximately 10,000 public visitors annually (public use is limited to hiking).

Schuster has a staff of three full-time employees who participate in teaching and lend logistical support to researchers. Next year, he said, construction will begin on a two-story Center for Science and Education to be located at the forest's entrance, housing new classrooms, laboratories, and offices. In addition to managing the woodland and the activities that take place in it, Schuster and his staff also conduct their own research and publish a quarterly newsletter for the Friends of Black Rock Forest, visitors and contributors whose support helps to keep this living laboratory alive.



### How to Visit Black Rock Forest

The forest can be reached by looking for the Black Rock Forest sign from the southbound lanes of Route 9W, about one mile south of Cornwall, New York. Vehicles are parked in an area adjoining the entrance. At the start of the nature trail, visitors will find an information board containing pamphlets and maps, as well as a donation box (suggested donations are \$2 per adult and \$1 per child). A network of maintained and marked trails provides access to the most interesting portions of the forest.

You can also visit the forest on the World Wide Web at this address:

<http://www.dalton.org/groups/brf/>



Left: A Museum Ecology Club member holds a jar with a fish collected from Mineral Spring Brook. Right: The Club on a field trip to the forest. Center of page: A wood frog gently held for examination.





## Members' Memo

### Timed Tickets for *The Lost World*

Because of popular demand, admission to the exhibition *The Lost World: The Life and Death of Dinosaurs* is being handled on a timed-ticket basis, with time slots every hour on the half hour.

This means that if you enter the Museum at 10:00 a.m., for example, and ask to purchase a ticket for *The*

*Lost World* exhibition, you will be offered one for the 10:30 time slot, unless you request an alternate time.

Admission is \$6 for Members. Combination tickets for Members (who enjoy free admission) are \$8 (\$6 for children), which covers the exhibition plus a choice of either an IMAX® movie or an Expeditions audio tour.



Charles Knight sculpting a Stegosaurus.

## A Birthday Party at the American Museum of Natural History

This year, give your child a birthday party he or she won't forget: two hours of fun and learning in the endlessly fascinating halls of the American Museum of Natural History. All you need to do is choose from one of our many stimulating party themes — and bring the cake. We'll take care of the rest.

All parties include an introduction and demonstration of artifacts, a hall tour, arts and crafts projects developed exclusively for each party theme.

games, storytelling, refreshments, and favor bags.

The parties are limited to Members at the Contributor level and above. The fees cover all materials and the services of Museum staff, who customize each party to suit the needs of the birthday child and family.

For information and to find out how to reserve a time and place for your child's special birthday party at the Museum, please call our office at (212) 769-5542.

## The Dinosaur Party

**The Dinosaur Party**  
Visit the Hall of Saurischian Dinosaurs and the Hall of Ornithischian Dinosaurs. In the party room, children handle fossil casts, learn how fossils are formed, and make a fossil themselves to take home along with their favors.

The Membership Office would like to thank the following young Members who celebrated their birthdays here recently: Madeleine Morris, Alissa Smith, Zach Ezzi, and Alexander Mitman.

## Cruise Manhattan in Style

Join Discovery Tour Participants for a Highlight of their New York Weekend

Saturday, October 25  
Program Code: MM1-10

Join Discovery Tours' Sunset Dinner Cruise of Manhattan's waterways during their annual New York City Weekend.

Watch the sunset while enjoying a luxury dinner and cocktails aboard the private yacht *Cabaret*. During this four-hour exploration around the island, a fascinating commentary will be provided by the Museum's Coordinator of Environmental Public Programs, Sidney Horenstein.

Limited space is available, so make your reservation today. Use the Program Code above and fill out the coupon below or call Central Reservations at (212) 769-5200.

**\$100 per person, all-inclusive**

## Central Reservations Coupon

**BY PHONE** Call (212) 769-5200 six days a week — Monday through Friday from 8:00 a.m. to 6:00 p.m. and Saturday from 10:00 a.m. to 6:00 p.m. Have your credit card and membership category ready when you call.

**BY MAIL** Send the registration form below to Central Reservations, American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192. Make checks payable to the American Museum of Natural History.

## Membership Programs

Program Title	Code	Date/Time	Reservations	Reservations	Enclosed
					\$
					\$
					\$
					\$

## Education Department

## Hayden Planetarium

**Total Amount Enclosed:** \$ \_\_\_\_\_

Name: \_\_\_\_\_ Phone (day): \_\_\_\_\_ (eve.): \_\_\_\_\_

Address: \_\_\_\_\_ Charge my: Amer. Ex. \_\_\_\_\_ Visa \_\_\_\_\_ Master Card \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_ Card Number: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_

Membership Category: \_\_\_\_\_ Signature: \_\_\_\_\_ Expiration Date: \_\_\_\_\_



Museum Notes

HOURS

EXHIBITION HALLS	
Mon.-Thurs. & Sun	10:00 a.m.-5:45 p.m.
Fri. & Sat.	10:00 a.m.-8:45 p.m.
THE MUSEUM SHOP	
Mon.-Thurs. & Sun.	10:00 a.m.-5:45 p.m.
Fri. & Sat.	10:00 a.m.-7:45 p.m.
THE JUNIOR SHOP	
Mon.-Fri.	10:00 a.m.-4:45 p.m.
Sat. & Sun.	10:00 a.m.-5:45 p.m.

THE MUSEUM LIBRARY

Tues.-Fri.	11:00 a.m.-4:00 p.m.
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THE NATURAL SCIENCE CENTER

There are many wild places in the New York City area, and the Center features these habitats' plants and live animals. Closed holidays.

Tues.-Fri	2:00-4:30 p.m.
Sat. & Sun	1:00-4:30 p.m.
Thursday Storytelling	3:00 p.m.

MUSEUM DINING

DINER SAURUS FAST SERVICE EATERY

Daily	11:00 a.m.-4:45 p.m.
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GARDEN CAFE

Reservations: (212) 769-5865	
Lunch: Mon.-Fri.	11:30 a.m.-3:30 p.m.
Dinner: Fri. & Sat.	5:00-7:30 p.m.
Lunch: Sat. & Sun.	11:00 a.m.-4:00 p.m.

WHALE'S LAIR

Fri.	3:00-7:30 p.m.
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List of Exhibits

	LOCATION	ON VIEW UNTIL
<i>Endangered! Exploring a World at Risk</i>	Gallery 3, 3rd floor	9/1/97
<i>Dzanga-Ndoki Rainforest: The Making of an Exhibition</i>	Akeley Gallery, 2nd floor	9/1/97
<i>The Lost World: The Life and Death of Dinosaurs</i>	Hall of Ocean Life, 1st floor	9/30/97
<i>Extinct!</i>	Library Gallery, 4th floor	9/30/97

Sat.	Noon-7:30 p.m.	Discovery Tours	(212) 769-5700
Sun. & most holidays	Noon-4:00 p.m.	toll-free outside NY State:	(800) 462-8687
SNACK CARTS		IMAX®	(212) 769-5034
Sat. & Sun.	11:00 a.m.-4:00 p.m.	Development	(212) 769-5151
		Communications	(212) 769-5800
		Volunteer Office	(212) 769-5566
		Museum Shop	(212) 769-5150
		Library Services	(212) 769-5400
		Natural History magazine	(212) 769-5500
		Membership Office	(212) 769-5606
		Members' Birthday Parties	(212) 769-5542
		Planned Giving Office	(212) 769-5119
		toll-free outside NY State:	(800) 453-5734
		Central Reservations	(212) 769-5200
		World Wide Web Site	http://www.amnh.org

ENTRANCES


During Museum hours visitors can enter the building through the 77th Street entrance, the first- and second-floor Roosevelt Memorial Hall entrances (79th Street and Central Park West), or through the subway entrance. Visitors attending programs after hours can enter the building at 79th Street and Central Park West, down the driveway at the security entrance. Tickets can be picked up or purchased at the ticket desk just inside the entry.

PHONE NUMBERS

Museum information	(212) 769-5100
Planetarium information	(212) 769-5900
Education Department	(212) 769-5310

PARKING

The visitor parking lot is temporarily closed. For public transportation and local parking information, call (212) 769-5100. The Museum is well served by public transportation.



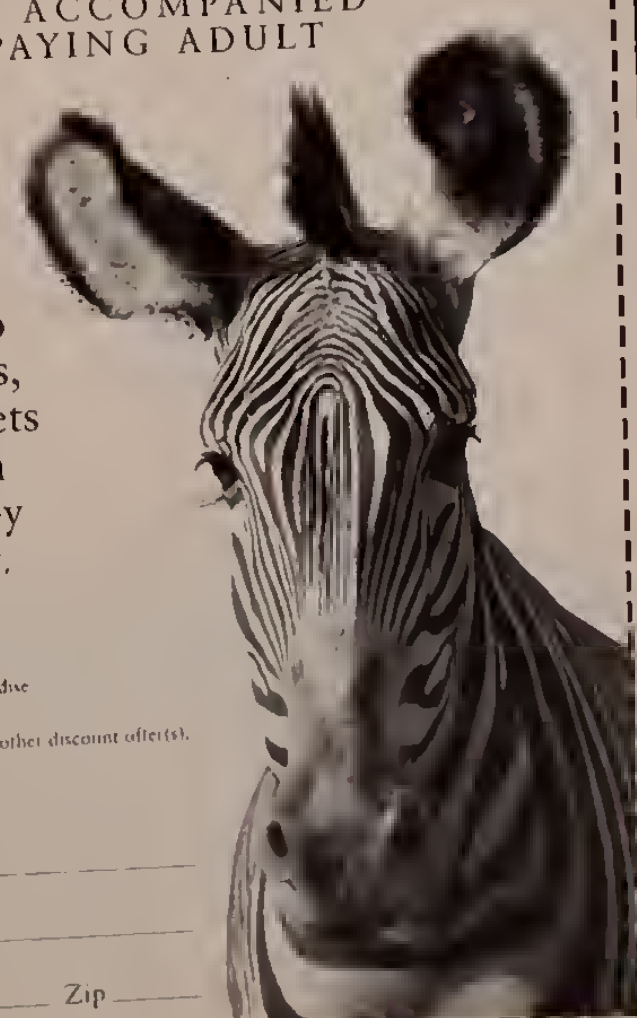
WILDLIFE CONSERVATION SOCIETY  
FOUNDED IN 1895 AS THE NEW YORK ZOOLOGICAL SOCIETY

# BRONX ZOO

## FREE CHILD'S ADMISSION

WHEN ACCOMPANIED  
BY PAYING ADULT

When you present this coupon at the Bronx Zoo admission gates, a child (2-12) gets in FREE when accompanied by a paying adult.



\* Valid through October 31, 1997.  
\* Not transferable to food/merchandise  
\* Not redeemable for cash value.  
\* Not valid in conjunction with any other discount offer(s).  
\* One coupon per family of four

Name \_\_\_\_\_  
Address \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

# Discover

Explore our  
**IMAX® Dinner Theater Package**  
Available Friday and Saturday Evenings

Includes Museum and IMAX® admission plus a complete dinner (entree, appetizer or dessert and coffee)

Per adult \$26\* Member price \$24\* Per child \$14\*  
\*tax and gratuity included

Now playing:  
***Cosmic Voyage***  
***& Survival Island***

Hours  
Lunch, Mon. - Fri: 11:30 - 3:30  
Saturday and Sunday: 11:00 - 4:00  
Dinner seating, Fri. - Sat: 5:00 - 7:30  
For Reservations call 212-874-3131



GARDEN CAFE  
AMERICAN MUSEUM OF NATURAL HISTORY



Sun	Mon	Tues	Wed	Thur	Fri	Sat
		1	2	3	4 Independence Day The Museum is open.	5
July 1997						

6 2:00 p.m. Mars Week Begins! Live from Mars broad- casts, plus workshops and lectures. Page 2	7	8	9 9:00 a.m. Dinosaur State Park and the Connecticut River Valley. Members' day trip Page 2	10	11	12
13	14	15 7:30 p.m. Linnaean Society of New York. Leonhardt People Center Free	16	17	18 6:30 p.m. The War of the Worlds Reading-performance by Robert Campanile. Free. Tickets required. 4th-floor Orientation Center.	19
20 1:00 p.m. The Earth as a Peppercorn A "solar system" walk around the grounds of the Museum. Free. Tickets required.	21	22	23	24	25	26 12:00 noon to 4:00 p.m. The Discovery Room is open. Museum Magic theme for the month: "Some Like it Hot." Leonhardt People Center Free
27 12:00 noon to 4:00 p.m. The Discovery Room is open. Museum Magic theme for the month: "Some Like it Hot." Leonhardt People Center. Free.	28	29	30	<div> <p><b>Carry the Card!</b></p> <p>Card-carrying Members can take advantage of our new express line on weekends if they enter at the second-floor Rotunda, on Central Park West. Express line tickets are for Museum admission only. So carry the card!</p> <p>Printed on recycled paper</p> </div>		

## August 1997

# August 1997

1  
6:30 p.m.  
**The Catcher in the Rye.**  
Reading-performance by  
Robert Campanile. Free.  
Tickets required. 4th-floor  
Orientation Center.

## IMAX® Theater Schedule

Monday to Sunday *Cosmic Voyage*: 10 a.m. and 12, 2, and 4 p.m.  
*Survival Island*: 11 a.m. and 1, 3, and 5 p.m.

Double Features  
Friday and Saturday *Cosmic Voyage* and *Survival Island*: 6 p.m.

Laser 3-D shows *Laser U2* and *Pink Floyd's Dark Side of the Moon*: 9 p.m.

10

11

Childrens' Workshops  
10:30 a.m.  
**Dinosaurs Lost  
and Found**  
1:00 p.m.  
**Gator Hole**  
Page 4

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Childrens' Workshops  
10:30 a.m.  
**Dinosaurs Lost  
and Found**  
1:00 p.m.  
**Turtles or Tortoises?**  
Page 4

13

Childrens' Workshops  
10:30 a.m.  
**Dinosaurs Lost  
and Found**  
1:00 p.m.  
**Gator Hole**  
Page 4

14

Childrens' Workshops  
10:30 a.m.  
**Dinosaurs Lost  
and Found**  
1:00 p.m.  
**Turtles or Tortoises?**  
Page 4

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Childrens' Workshops  
10:30 a.m.  
**Dinosaurs Lost  
and Found**  
1:00 p.m.  
**Gator Hole**  
Page 4

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19

7:30 p.m.  
**Linnaean Society of  
New York.**  
Leonhardt People Center  
Free

20

21

8:00 a.m.  
**The Thimble Islands  
and Beyond.**  
Members' summer excursion with a cruise and museum and quarry visits.  
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American Museum of Natural History



# ROTUNDA

For Family/Dual and Higher Members of the American Museum of Natural History

Vol. 22, No. 9 October 1997

## The Nature of Diamonds

On View in Gallery 3, November 1 – April 26

In *The Nature of Diamonds*, the most comprehensive exhibition ever mounted on the subject, visitors will be able to experience first-hand the dual nature of diamonds—at once hard and brilliant, utilitarian and decorative. Organized by George E. Harlow, curator in the Museum's Department of Earth and Planetary Sciences, the exhibition examines, among other topics, where diamond is found, what it tells us about the planet Earth, and the processing and fashioning of diamonds from raw crystals into finished gem or abrasive. Through gem displays, the exhibition looks at the role diamonds have assumed in writing, art, and adornment, and as an emblem of style and romance in modern culture.

A resource center offers visitors a range of information in various formats, including a special exhibition web site. A

richly illustrated companion volume explores the science, history, art, symbolism, and technology of diamonds.

In conjunction with *The Nature of Diamonds*, the Museum's Education Department is scheduling a number of lectures, a film series, and a workshop. Turn to page 3 for a complete listing of the many programs planned around this exceptional exhibition.

The exhibition is sponsored by the Diamond Information Center on behalf of De Beers.

Tiffany diamond, one of the largest fancy yellow diamonds ever discovered, in a version designed in the early 1960s by Jean Schlumberger, "Bird on a Rock." On loan from Tiffany & Co., New York.



### Exhibition Highlights

#### See an Interactive Model of Diamond Crystals

An interactive model offers visitors the opportunity to explore the extraordinary strength of this hardest of substances. Experience the extreme thermal conductivity of diamond and the light refractivity that gives the gem its brilliance, and observe its ability to divide light into rainbow colors.

#### Step into the Vault

Some of the most dazzling objects on view are historically significant gems from collections around the world on loan for this exhibition. Many of them have never before been on view in North America. Featured among these objects, which will be housed in a walk-in diamond vault, are an array of jewels from the Kremlin, including a diamond-studded crown of Peter the Great.

#### Tour the Historic Portrait Gallery

Diamond adornments are displayed alongside art works, placing aristocratic jewelry in a human and historic context through paintings representing six centuries of portraiture.

An impressive Renaissance portrait, *A Gonzaga Princess* (c. 1605), by Frans Pourbus the Younger, is coming from the Galleria Palatina of the Pitti Palace in Florence, Italy. Alexander Roslin's portrait of Catherine the Great, from the Hillwood Museum, Washington, D.C., is displayed alongside jewelry from Catherine's royal collection and Peter Carl Fabergé's replica of the Russian Regalia, on loan from the Hermitage Museum, St. Petersburg.

Among the gallery's many other rare and unusual jewel selections are diamond betrothal rings ranging over five centuries, providing a link to our modern celebration of marriage.

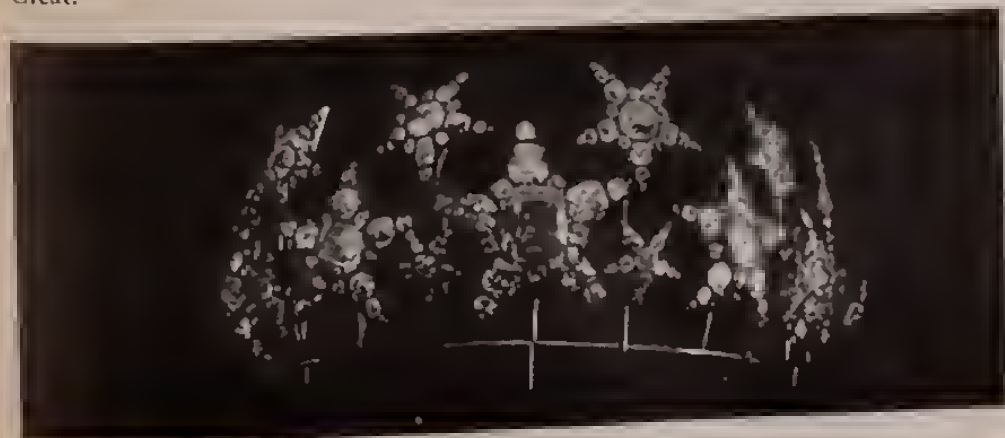
#### Walk Through a Mine Tunnel to a Diamond Pipe

A specially constructed mine tunnel leads to a re-created diamond pipe—a cylinder-shaped mineral deposit from which diamond is extracted. Embedded in the re-created pipe of volcanic rock, known as kimberlite, are samples of rare rocks from the earth's mantle coming from depths greater than 150 kilometers and dating as far back as three billion years. A partially buried diamond will also be visible.

#### Peruse a Diamond Lapidary Workshop

At various times during the run of the exhibition, in a re-created diamond lapidary workshop, cutters from the diamond trade demonstrate and explain the techniques of faceting diamonds. A video installation reveals the complete process of diamond fashioning, including new computer-automated methods.

**Members' Preview**  
Thursday, October 30,  
5:30–8:30 p.m.



Diamond diadem, or tiara, with twenty-five graduated five-point stars set en tremblant. On loan from the National Palace of the Ajuda Museum, Lisbon.

### 21st Annual Margaret Mead Film and Video Festival

Gets Underway on  
November 6

Be There

Listings Begin on Page 5



*Himalayan Herders*; Saturday, Nov. 8,  
Leonhardt People Center, 3:15 p.m.





Meave Leakey and Kamoya Kimeu at an excavation site of elephant fossils in Kenya in 1996.

## An Evening with Meave Leakey

# The Search and Discovery of Our Earliest Ancestors

Tuesday, November 4

7:00 p.m.

Main Auditorium

\$25; \$20 for Members

Program Code: MM1-11

Fossil discoveries in Kenya over the past several years have not only put back the date of the earliest known bipeds by half a million years, filling a wide gap in the fossil record, but are also contributing to a reconstruction of the environment in which our earliest ancestors, the first hominids, lived.

Meave Leakey, zoologist, paleoanthropologist, and head of paleontology at the National Museums of Kenya, comes to the Museum with a lecture program focusing on this search for the origins and nature of hominids who lived four million years ago.

Wife of Richard Leakey, inheritor of a fossil-hunting family tradition that pioneered the search for the ancestors of modern humans by exploring Africa's fossil past, Meave Leakey earned a Ph.D. in zoology and marine zoology. After taking a position at Nairobi's Tigone Primate Research Centre under the auspices of Louis Leakey, she was invited to join his son's field expedition investigating the newly discovered paleontological site on the shore of Lake Turkana.

This marked the beginning of

her long-term involvement with the highly successful Turkana Basin Research Project.

In 1989, after her husband's interests shifted to conservation efforts, she became the coordinator of the Kenyan National Museums' field research in the area, shifting the focus of research to earlier periods in the fossil record and searching older sediment sites for evidence of some of the first bipedal hominids.

Her efforts concentrated on sites between eight and four million years old. In 1994, remains of some of the earliest hominids known were discovered at a site called Kanapoi. Not only do these finds represent a new species — *Australopithecus afarensis* — but they also push back the date of the earliest known bipeds to somewhere between 4.2 and 3.9 million years ago.

Now the recognized leader of the Leakey family tradition, Meave Leakey is also one of the most visible scientists in a discipline that has long been a male domain. Her lecture will be accompanied by slides and end with a question-and-answer session.

## Second Notice



### Staten Island by Sea

Wednesday, October 15

Thursday, October 16

Learn about the geologic and historic features of New York Harbor as seen from the deck of the Staten Island ferry. The tour, conducted by Sidney Horenstein, includes the area in Staten Island around the ferry terminal.

Time: 6:00-8:00 p.m.

\$20; \$17 for Members

Oct. 15 Program Code: MM3A-10

Oct. 16 Program Code: MM3B-10



### Behind-the-Scenes in Anthropology

Saturday, October 18

Experience the scientific life of the Museum during specially guided tours by Anthropology Department staff. Includes the conservation laboratories, anthropological collections, and their state-of-the-art computerized database system. A choice of four departure times: 10:00 or 11:30 a.m. or 2:00 or 3:30 p.m.

\$20; for Family/Dual and Higher Members

Program Codes: MM4 (A, B, C, or D)-10



### Eye to Eye

Sunday, October 26

Main Auditorium

Discover the world of Frans Lanting, one of the finest nature photographers working today, at a slide-illustrated talk focusing on his recently published book, *Eye to Eye: Intimate Encounters with the Animal World*, which is available for purchase and signing at the lecture.

Time: 7:00 p.m.

\$10; \$8 for Members

Program Code: MM6-10



### How the Mind Works

Wednesday, October 29

Main Auditorium

Find out how Steven Pinker, one of the world's leading cognitive scientists, tackles the mind's intricacies to decipher how we think, feel, and act. This slide-illustrated lecture is based on his new book *How the Mind Works*, which is available for purchase and signing at the lecture.

Time: 7:00 p.m.

\$10; \$8 for Members

Program Code: MM7-10

## ROTUNDA

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October 1997

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Rosemary Caulk — Associate Director of Membership

John Mix — Assistant Director of Membership

Rita Campon — Copy Editor

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# Diamonds

## Special Programs

### Diamonds: Window to Earth, Asteroids, and the Stars

Five Thursdays, beginning October 9  
7:00–8:30 p.m.  
\$30; \$27 for Members  
Program Code: ED97214L

In this slide-illustrated lecture series sponsored by the Department of Earth and Planetary Sciences, speakers examine the substance of diamond in light of recent scientific studies and discuss the superlative properties, scientific applications, and diverse origins of diamond in the universe, including the latest hypotheses of both terrestrial and extraterrestrial formation.

**October 9** — *Diamond: An Extraordinary Earth Material*; George E. Harlow, Department of Earth and Planetary Sciences, American Museum of Natural History

**October 16** — *Diamond: A Window to High Pressure Environments*; Robert M. Hazen, Geophysical Laboratory, Carnegie Institution of Washington

**October 23** — *Earth Processes and the Origins of Natural Diamonds*; Francis R. Boyd, Geophysical Laboratory, Carnegie Institution of Washington

**November 6** — *Star Dust and Cosmic Sources of Diamonds*; Gary R. Huss, Department of Geology and Planetary Sciences, California Institute of Technology

**November 13** — *New Ideas on the Origins of Diamonds*; Stephen E. Haggerty, Department of Geology and Geography, Morrill Science Center, University of Massachusetts

### Diamond — Symbols, Jewels, and History

Five Mondays, beginning November 3  
7:00–8:30 p.m.  
\$30; \$27 for Members  
Program Code: ED97222L

This illustrated series of talks explores the history of diamonds in myth and reality, as well as diamonds' aristocratic heritage and roles in jewelry and gemology.

**November 3** — *Tracking the Cultural History of Diamond*; George E. Harlow, American Museum of Natural History

**November 17** — *The History of Finding Diamonds*; Alfred Levinson, University of Calgary

**November 24** — *Dynasties and Diamonds: Court Jewelry of the Italian Renaissance*; Martha McCrory, Fashion Institute of Technology

**December 1** — *Diamonds in the American Century*; Janet Zapata, writer and historian

**December 8** — *Diamonds as Gems*; Thomas Moses, Gemological Institute of America

### Festival of Diamonds on Film

Nov. 22–23; 10:30 am–3:30 p.m.  
Kaufmann Theater  
Free

This film series presents fictional and documentary works that portray our economic, cultural, and scientific views about this fascinating substance. Call (212) 769-5176 for a program flyer.

### Dreaming of Diamonds

Tuesday, December 9  
7:00–8:30 p.m.  
Free

Prospector, explorer, and author Henry E. Kennedy discusses mining for diamonds and gemstones in Brazil, where the techniques employed by solitary prospectors are reminiscent of the California gold rush of 1849. His slide-illustrated lecture covers an explanation of the clues prospectors look for to indicate valuable deposits, the tools of their trade, and the natural and political challenges of mining, including the implications of article 171 to the Brazilian Constitution.

### How to Mine for Diamonds

Saturday, December 6  
Three sessions:  
1:00, 2:00, or 3:00 p.m.  
Linder Theater  
\$8  
Program Code: ED97328X

Led by prospector and author Henry E. Kennedy, this hands-on workshop is preceded by a brief, slide-illustrated talk. Participants learn the techniques used in diamond prospecting and mining.

### Members' Preview

## The Nature of Diamonds

Thursday, October 30, 5:30–8:30 p.m.  
Gallery 3, Third floor

Join us for a special, Members-only preview of a major, new temporary exhibition, for which an additional fee will be charged when it opens to the public on November 1.

To take advantage of this free preview, you need only bring your valid Family/Dual or Higher Membership card to the Museum's security entrance, down the driveway at 79th Street and Central Park West, anytime after 5:30

p.m. on Thursday, October 30. Gallery 3 will remain open only to Members until 8:30 p.m.

You can also take advantage of your Members' discount to join in one of the many special lecture, film, and workshop programs (shown on this page) that have been organized in conjunction with the exhibition. Read the listings and get to know *The Nature of Diamonds*.

### Children's Writing Workshop

## How it Was with Dooms

Saturday, November 22  
Edith C. Blum Lecture Room  
Appropriate for ages 6 to 14  
Two sessions:  
10:00–11:30 a.m.  
Program Code: MM7A-11  
2:00–3:30 p.m.  
Program Code: MM7B-11

\$33 for each child/adult couple; \$30 for Member couples

You and your child can practice together the techniques of transforming family life experiences into prose with Carol Cawthra Hopcraft, co-author with her son Xan Hopcraft of *How it Was with Dooms: A True Story from Africa*. A wildlife photographer who lives and works in Kenya, she put together the story of the life of the family's pet cheetah, Dooms (from *duma*, the Swahili word for "cheetah") by first suggesting to her son that they make a scrapbook with

her photos and his drawings as a way to help Xan, after the cheetah's death, to deal with his grief. Using a tape recorder, Xan told all he knew and remembered about Dooms, and his mother transcribed it into writing.

In this three-part workshop, the photographer/author, who is married to Kenyan research scientist David Hopcraft, first shows slides of Dooms and their home and 20,000-acre game ranch near Nairobi. She talks about her family's life there and tells the story of



Carol Cawthra Hopcraft, Xan Hopcraft, and Dooms

the full-grown, wild cheetah who became a part of their family. In part two, she describes the experience of compiling a journal from an oral account, shows workshop members how to make outlines, and asks them to make one of their own, getting the flow of a story from their own family life by keeping the telling simple and honest. In part three, she takes a few example outlines from participants and demonstrates how they can easily be

transformed into prose. The workshop ends with a question-and-answer session.

Carol Cawthra, who worked as a high-fashion model in New York in the early 1970s, moved to Africa in 1977 to pursue a career as a photographer. Since then, she has had numerous one-woman exhibitions in the United States and abroad. Copies of her book will be available for sale and signing at the workshop.





Haida Totem Poles; Northwest Coast

## Members' Sculpture Workshop

## Creating Totemic Clan-Crest Columns

Saturday, November 15

1:00–4:00 p.m.

Edith C. Blum Lecture Room

\$33; \$30 for Members

Program Code: MM4-11

Participants in this workshop, conducted by Pamela Popeson, a former director of the Museum's Fossil Reproductions Department, follow in the footsteps of the memorial pole carvers of the Northwest Coast by sculpting their own totemic clan-crest columns, or totem poles.

In cultures all over the world, people celebrate their identification with other animals and their personal and tribal attachment to events, places, and objects by fashioning special symbols on carved poles that record these mythologies. Following the aesthetic design patterns of peoples from the Northwest Coast, members of this workshop can create tiered columns of totemic images related to their individual or family mythologies, depicting their own personal "power animals."

Popeson, a sculptor, prepares those who sign on for this workshop with a mailing providing examples of the kind of personal symbolism individuals can develop as themes for their carved poles. During the workshop, she instructs participants in simple sculpting techniques. Teaching them to first trace designs into the soft clay before carving and modeling, she helps them complete a twelve-inch totem sculpture in self-hardening clay to take home and display.

Popeson has taught art to adults and children of all ages, and is a past leader of many fossil molding and sculpting workshops in the Museum.

## Members' Private Curator-Led Tour

## Drawing Shadows to Stone

Thursday, November 20

7:00 p.m.

Gallery 77, first floor

\$18; limited to Family/Dual and Higher Members

Program Code: MM6-11

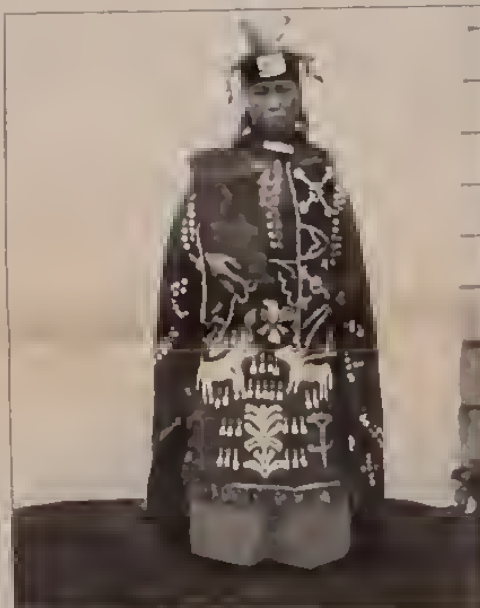
The exhibit opening next month in Gallery 77, *Drawing Shadows to Stone: Photographing North Pacific Peoples, 1897–1902*, is the centerpiece of the Museum's 100th-anniversary celebration of the Jesup North Pacific Expedition (1897–1902), a research project of such scientific importance and geographical scope that it remains the most significant in the history of American anthropology.

With Thomas Ross Miller and Barbara Mathé, guest-curators for this exhibition, Members can enjoy a private tour of the gallery and a discussion of some of the fascinating photographs and objects on exhibit.

The members of the Jesup Expedition traveled among and studied the

peoples of the Greater North Pacific region — a huge area that extends like a giant arc from the Northwest Coast of North America to the Bering Strait and along the Pacific Coast of Siberia to the cultural borderlands of China, Korea, and Japan. Expedition teams collected objects and recorded stories, songs, biological measurements, and observations of daily life. They also took over 3,000 photographs.

During the tour, Miller and Mathé explain how the photographs fit into the larger context of the Jesup collection. They also discuss other highlights of the exhibition, such as the wax cylinder sound recordings of songs, games, myths, and shaman's music, and the miniatures and models created by native North Pacific people for the



A Kwakiutl woman holding her copper; British Columbia, 1894



Totilde — A Nakoastog — giving away his copper in honor of his son.

Museum. Included among these last is a house model made by the famed Haida artist, Charles Edenshaw.

Barbara Mathé is assistant museum librarian at the Robert Goldwater Library of the Department of the Arts of Africa, Oceania, and the Americas of the Metropolitan Museum of Art.

She studied photography at the Royal College of Art in London and worked for six years in the photographic collection of the Museum's Department of Library Services.

Thomas Ross Miller, a former senior scientific assistant for Asian and African ethnology at the Museum and contributor to *Natural History* magazine, is currently a doctoral student in Columbia University's Anthropology Department.

His research interests include ethnomusicology and the history of museum anthropology. As composer and librettist, he has received a grant from the National Endowment for the Arts for his opera, *The North Pole*.

## Fossils and the Delaware Water Gap

Tuesday, November 11

8:00 a.m.–6:00 p.m.

\$65; limited to Family/Dual and Higher Members

Program Code: MM2-11

The Delaware Water Gap is one of the scenic wonders of the eastern United States but its origins remain controversial. Participants on this geological and fossil-collecting tour, led by Sidney Horenstein, coordinator of the Museum's Environmental Programs, hear several proposals relating to the Water Gap's origin as they stand before it.

The tour takes place for the most part in the valley and ridge section of the Appalachian Mountains and

Horenstein gives a narration during the coach trip from New York, explaining many of the features seen along the way. During a walk along the Delaware River, he discusses environmental issues relating to the river and reveals some of its historical associations.

This area boasts several outstanding geological features, including Wind Gap, probably the best example of a phenomenon that takes its name from this particular break in a ridge through which no river flows. Tour members

collect fossils from a middle-Devonian-age coral reef. The fossils are fairly abundant and, in addition to a variety of corals, there are 370-million-year-old snails, bryozoans, and occasional trilobites.

Although there is loose material along the base of the outcrop, participants may want to bring a hammer and chisel to pry new material from the rock surface. Also useful is a hand lens and material with which to protect and carry the fossil specimens.



# The Margaret Mead Film & Video Festival

Thursday, November 6, to Wednesday, November 12

## Ticket Reservations

At this year's Festival, films are shown in a number of different program formats, ranging from a single, full-length movie to multiple short films. Ticket prices are per program, and tickets can now be purchased in advance for any program on the Festival schedule. Each program is identified by a code number, printed here beneath the description of the film or films. Ticket prices are as follows. (Please note that Members' discounts also apply to students and senior citizens.)

### Ticket Prices

Per program — \$6; \$5 for Members  
2 programs — \$10; \$8 for Members  
10 programs — \$45; \$40 for Members

### Friend of the Festival \$99

- \* 12 Programs
- \* Invitation for two to opening night film & special reception
- \* Festival T-shirt
- \* Acknowledgment in the 1998 Festival Guide

Program Code — M38

### Festival T-shirt

\$13; \$11.50 for Members

Program Code — M39

For advance reservations, note the code numbers for the programs of your choice, and fill in the Central Reservations Coupon on page 9, or call Central Reservations at (212) 769-5200 Monday through Friday, 8:00 a.m.-6:00 p.m., and Saturday, 10:00 a.m.-6:00 p.m. Be sure to have on hand your credit card number and the program codes for the movie programs you wish to reserve.

Please note that tickets will be mailed out in advance up to two weeks only before the dates you are reserving. After that, you must pick them up at the 77th Street entrance.

Beginning October 1, advance-sales tickets for the Festival may be purchased on site in the second-floor Rotunda, in the Advance Group Sales area of the ticket counter. During the Festival, tickets can be purchased both at the Rotunda and the 77th Street entrance of the Museum.

To receive a brochure of Festival listings, call (212) 769-5305. Programs subject to change.

## Special Features

### Grass-roots Community Media

With the development and availability to the average consumer of the Portapak camera, video became a critical new vehicle for community protest, organizing, and celebration.

This type of community media existed before the birth of cable television and public access channels, and this year the Festival will present some of the pioneering grass-roots media projects in North America that emerged in the late 1960s.

These include a project from 1968, *Inside Bedford-Stuyvesant*, and the Canadian project *Challenge for Change*. Other programs explore the history of the public-access movement and highlight some of the leading innovative groups in N.Y.C. Project representatives will be present for discussions following the programs.

### Samba, Sexuality, and Sertão: Brazil

This year's festival celebrates recent documentary film and video production from Brazil.

The films include a lighthearted look at the arts (*O Amor Natural*), a portrait of singer Gilberto Gil, a view of the political and economic issues surrounding AIDS activism (*No Rubber, No Way and Odô Yô!*), and a look at the precarious lives of Brazil's street children (*Guerra Dos Meninos*). While much of this work was produced by medi makers from Rio de Janeiro, some also comes from northeast Brazil and the area called Sertão.

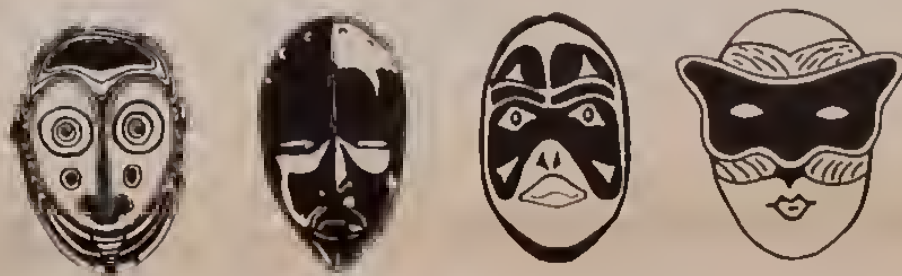
Also included is an indigenous production about the efforts of Waiãpai Indians to demarcate their lands. Filmmakers will be on hand for discussions with the audience following some of these films.

### Re-enactment in Documentary

The 1980s and 90s saw the rise of identity politics, in which ethnic, cultural, and social groups struggled, among other things, with representations of themselves, especially in the mass media.

In the wake of this movement, medi makers began working with groups to re-enact aspects of their lives, re-experiencing original events on camera in forms ranging from the depiction of both real and imagined historical events to that of contemporary realities. Activist, educational, and therapeutic medi makers have all taken advantage of this artistic technique for creating a strong dramatic structure.

The titles in this section include films from China (*Sons*), Mozambique (*Tchuma-Tchato*), and India (*When Women Unite: Story of an Uprising*).



## Opening Night

Thursday,  
November 6

### Main Auditorium

8:00 p.m.

*India*

Roberto Rossellini, 1958, Italy.  
90 minutes

A rare screening of this famous movie by Italian director Roberto Rossellini, whose neo-realist films helped define a generation of cinema. *India* marked a transition in Rossellini's career from fiction to documentary. This lyrical work unfolds in four "chapters" and explores the delicate balance between tradition and technology, man and nature; a work that film critic Andrew Sarris called "one of the prodigious achievements of this century." This is the New York premiere of the restored print of this film, which is presented in cooperation with Cinecitta International, Divisione dell'Ente Cinema; the New York Istituto Italiano di Cultura; and Gil Rossellini.

Program Code: M1

Friday,  
November 7

### Main Auditorium

7:15 p.m.

*Portal to Peace*, Cuba, 30 minutes

Even after death there is no escaping state bureaucracy. In Cuba, where cremation is unusual, cemeteries fill up rapidly and remains are frequently exhumed. In one Havana cemetery, relatives are ordered to reclaim their family members two years after internment.

Followed by:

*O Amor Natural*, Brazil, 76 minutes

The filmmaker takes us on sensual, passionate, and comic encounters with Brazilians of all ages as they read selections from the erotic poetry of Carlos Drummond de Andrade.

Program Code: M2

9:45 p.m.

*Sons*, China, 95 minutes

A remarkable and radical film from the noted Chinese director of *Mama* and *Beijing Bastards*. A family suffering from the effects of a father's alcoholism and domestic violence expose their dark dramas in front of the camera in a collaborative project between filmmaker and family.

Program Code: M3

### Kaufmann Theater

6:30 p.m.

*Inside Bedford-Stuyvesant*, U.S., video  
Segments from the first African-American community television series in the U.S., shot on location with funds from the War on Poverty program and support from the Bedford-Stuyvesant Restoration Corp. Harry Belafonte discusses the importance of a black image on television; the music group "The Persuasions" perform; welfare mothers outline the rights of recipients; and children from the LeROI Jones School rap about black identity. A discussion with writer and producer Charles Hobson follows this showing.

Program Code: M4

8:15 p.m.

*You Are on Indian Land*, Canada, 37 min.  
Mohawk Indians protest against the Canadian government's land-rights policy in this highly charged stand-off on the St. Regis Reservation.

Followed by:

*Billy Crane Moves Away*, Canada, 18 min.  
Tradition is pitted against modernity as a local fisherman finds he can no longer make a living and feels forced to leave his island home.



Followed by:

*VTR St. Jacques*, Canada, 30 minutes, video excerpts

In a pioneering use of the portable video camera, a citizens' committee takes to the streets to document the concerns of a poor section of Montreal. A discussion with producer George Soney follows these presentations. Program Code: M5

## Linder Theater

6:30 p.m.

*A Time in Waa*, Morocco, 50 minutes, video

"You have captured my liver." In the High Atlas Mountains of Morocco, this is the highest expression of young love. The Berber community participates in an annual "bride fair," where singles hope to meet potential husbands or wives. This film focuses on two women from the Ait Haddid tribe. A discussion with the director will take place after this film.

Followed by:

*Fatal Reaction: New York*, U.S., 85 minutes, video

A portrait of one woman's struggle to find love in New York City. A discussion follows this presentation.

Program Code: M6

## Leonhardt People Center

6:30 p.m.

Three works from the seventh international edition of the Mediawave Visual Art Festival from Győr, Hungary, are presented in this program. Zolt Bede-Fazekas, a Mediawave programmer, introduces the festival and the films.

*Koral*, Ukraine, 14 minutes, video

Working in a Ukrainian coal mine can be anonymous, hostile, and dangerous. This silent, lyrical film, looks at one working day in the mine.

Followed by:

*Experimentum Crucis*, Kazakhstan, 52 minutes, video

The director, Taras Popov, was a psychiatrist in a young adults' prison camp in Almaty, Kazakhstan. In 1993, he began documenting with a video camera the grim conditions and routines that these young people faced daily. A discussion takes place after the showing.

(Third presentation to be announced.) Program Code: M7

9:15 p.m.

*A Shepherd's Homecoming*, U.S./Mexico, 40 minutes

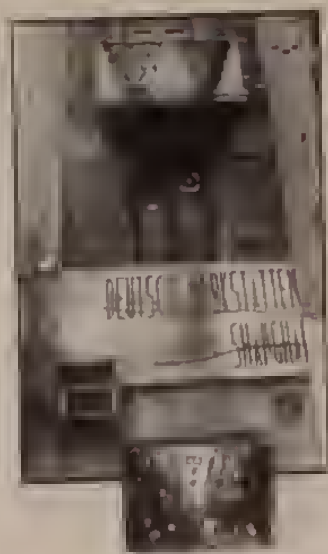
After three years of tireless work on a sheep ranch in the Nevada desert, a migrant worker ends his severe isolation and returns to his family in Mexico. What awaits him is an eager family and an uncertain future. A discussion with the directors takes place after this showing.

Followed by:

*A Stranger in My Native Land*, Tibet, 30 minutes, video

Filmmaker Tenzing Sonam, a Tibetan in exile, returns to his country for the first time since the Chinese occupation to rediscover his homeland and his family connections. Sonam was one of the directors of the Mead Festival hit, *Trials of Telo Rinpoche*.

Program Code: M8



© Ulla Dünker

*Exil Shanghai*, Sunday, Nov. 9, Kaufmann Theater, 12:00 p.m.

## Saturday, November 8

### Kaufmann Theater

12:00 p.m.

*Guerra Dos Meninos (Children's War)*, Brazil, 52 minutes

A startling portrait of Brazil's anonymous street children, their short lives and brutal deaths at the hands of the state.

Followed by:

*Boxa da Lica (Scavengers)*, Brazil, 50 min., video

One man's castoff is another man's gold mine. With ingenuity and integrity, a community of scavengers survives in a garbage dump outside of Rio de Janeiro.

Program Code: M9

3:15 p.m.

This program represents the United States premiere of two episodes from a new, six-part British television series, "The Mind Traveler," in which world-renowned neurologist Oliver Sacks explores different neurological syndromes with his characteristic curiosity, humor, and understanding.

*Don't Be Shy, Mr. Sacks*, 49 minutes, video

Williams Syndrome children exhibit excellent linguistic, musical, and social skills, yet have difficulty with numbers, spatial cognition, and concentration. What paths in life are open to people born with this singular mix of strengths and weaknesses?

Followed by:

*The Ragin' Cajun*, 49 min., video

What would life be like if you were born deaf, and knew that you would gradually become blind? As a circle of friends with Usher's Syndrome work at rebalancing their lives, we learn that the human brain itself has remarkable ways of dealing with change.

Program Code: M10

6:30 p.m.

*Waiting*, Sudan, 33 minutes

This dramatic tale of food relief for the Dinka of southern Sudan explores international aid programs to countries in crisis. It also raises questions about the ethical role of filmmakers and photographers in documenting these issues. A discussion takes place after this presentation.

Followed by:

*Tchuma-Tchato*, Mozambique, 56 minutes, video

A Mozambique park ranger wrestles with the dilemma of who should control the interests of wildlife management. Once a traditional hunter, he is now a government official enforcing anti-poaching policy. A discussion follows this film.

Program Code: M11

## Linder Theater

12:00 p.m.

*We Know How to Do These Things — Birth in a Newer Village*, Nepal, 40 minutes, video

For these villagers, giving birth is truly a family affair. While a young girl is in labor, the birth attendant, mother, and mother-in-law alternate between lending a hand and storytelling. A discussion with the director takes place after the presentation.

Followed by:

*A Bamako les Femmes Sont Belles*, Mali, 65 minutes, video

The forthright women of Mali have, for generations, contributed to the complex history of their nation. On-site interviews create a mosaic of their accomplishments and frustrations.

Program Code: M12

2:45 p.m.

*No Rubber, No Way*, Brazil, 27 minutes, video

This guerrilla video uses humor and imagination to educate Brazilian street children and combat the spread of AIDS.

Followed by:

*Odô Yá! Life with AIDS*, Brazil, 58 minutes, video

An affirming story of how *Candomblé*, a Brazilian religion of African origin, became a source of strength and power for AIDS sufferers when members of the community pioneered an innovative AIDS education program called "Odô Yá!" A discussion with the director follows this film.

Program Code: M13

5:45 p.m.

*Everyone's Channel*, U.S., 58 minutes, video

A comprehensive overview of the history of public-access television in North America, including rarely seen footage from the 60s and 70s. It also

considers the "hate groups" that access the airwaves. A discussion with the director takes place after the film.

Followed by:

*Surveying the First Decade: "Women's Liberation March, NYC"; "Gay Pride March, NYC," U.S.*, 15 minute excerpt, video

Women's liberation and gay pride marches may seem commonplace today, but they weren't always. A discussion takes place afterwards.

Followed by:

*Chinatown: Immigrants in America*, U.S., 60 minutes, video

In-depth encounters with Chinatown's residents reveal the daily struggles in one of New York's largest immigrant communities. A discussion with the directors follows this showing.

Program Code: M14

## Leonhardt People Center

12:00 p.m.

*Sight Unseen*, Bali, 27 minutes, video

A provocative encounter with Bali and its relationship to tourism, anthropology, home-video, and ice-cream.

Followed by:

*Incidents of Travels in Chichén Itzá*, Mexico, 90 minutes, video

A comic and provocative journey through the Mayan city of Chichén Itzá. Archeologists create one narrative about this historical site; international tourists, new-agers, local vendors, and artisans have their own interpretations.

Program Code: M15

3:15 p.m.

*We Know How to Do These Things — Birth in a Newer Village*

(see Saturday, November 8, Linder Theater, 12:00 p.m.)

Followed by:

*Himalayan Herders*, Nepal, 76 minutes, video (U.S. premiere)

A record of twenty-five years of gradual social and economic change in Melemchi, a temple village in Central Nepal. A discussion with the director follows the showing.

Program Code: M16

6:15 p.m.

*When Women Unite: The Story of an Uprising*, India, 80 minutes, video

Through dramatic re-enactments by



Gilberto Gil; Wednesday, Nov. 12, Linder Theater, 6:30 p.m.



the participants, this film looks at one of the most extraordinary social uprisings of modern India. Over three years, rural Indian women revolted against the government's distribution of liquor, and ultimately altered state policy. A discussion follows this film.  
Program Code: M17

## Sunday, November 9

### Kaufmann Theater

12:00 p.m.

*Exil Shanghai, China*, 4 hours, 30 minutes

Because a visa was not required there, Shanghai, China, became the last refuge for Europe's persecuted Jews in the 1930s. Sixty years later, some of the members of that community reflect, in vivid detail, about how they reconstructed their lives in a city unlike any they had ever known. A discussion with the director follows the film.  
Program Code: M18

### Linder Theater

12:00 p.m.

*Father, Son, & Holy Torum*, Siberia, 90 minutes

Tradition and change collide in this family drama from the Khanty community in Siberia. The protagonists are the father, a traditional shaman, and the son, who works for a Russian oil company. A discussion with the director follows the film.  
Program Code: M19

2:30 p.m.

*The Gulf Crisis TV Project: News World Order*, U.S., 28 minutes, video

An episode from a ten-part series, this video provides a searing counter-portrait to the mainstream media coverage of the Gulf War. It contains previously unseen footage that forces us to re-evaluate what we think we know.  
Followed by:

*Low-Power Empowerment: Neighborhood Radio in Ireland and the U.S.*, U.S., 29 minutes, video

What do two diverse groups of women — one in Galway, Ireland, and the other members of the Black Liberation Movement in the U.S. — have in common?

Followed by:

*Unequal Education: Failing our Kids*, U.S., 21 minutes, video

This student-produced work takes a look at the inequities of the New York City public school system through the stories of two seventh-graders who live in the same school district but in different worlds.

Followed by:

*Marcos' Message to Freeing the Media*, Mexico, 10 minutes, video

In this short clip, Commander Marcos, leader of Mexico's Zapatista movement, eloquently articulates the community's need to produce and circulate its own images and stories to the world.  
Program Code: M20

### Leonhardt People Center

12:00 p.m.

*Trokosi (Wife of the Gods)*, Ghana, 25 minutes, video

In Ghana, West Africa, young girls and women must pay for crimes committed by their ancestors by serving as vestal virgins. The state is now attempting to prohibit this custom. A discussion with the director takes place after the presentation.

Followed by:

*Vendetta: Obligated to Kill*, Northern Albania, 53 minutes, video

In northern Albania, there is a thousand-year-old tradition of seeking revenge for a victim's death. This has led to a cycle of ceaseless and senseless violence between families. A discussion with the director follows the film.

Program Code: M21

3:00 p.m.

*Trokosi (Wife of the Gods)* and *Vendetta: Obligated to Kill*

(see 12:00 p.m. listing above)

Program Code: M22

(There are no program presentations on Monday, November 10)

## Tuesday, November 11

### Main Auditorium

7:10 p.m.

*Blue Eyed*, U.S., 93 minutes

Since the day Martin Luther King, Jr. was assassinated in 1968, Jane Elliot has been a true pioneer in multicultural education. She has devoted her life to exploring issues of racism. Her ceaseless commitment to exposing racism in our country has been the cause for reprisals against her entire family. A discussion with Jane Elliot follows the film.

Program Code: M23

9:35 p.m.

*La Moindre des Choses (Every Little Thing)*, France, 105 minutes

At La Borde psychiatric clinic in France, the concept of "asylum" has been restored to its original meaning: a shelter where one can live in peace. An innovative philosophy blurs the distinction between patients and staff. The boundaries are further confused when the community stages an absurdist play. A discussion with the director follows the film.

Program Code: M24

### Kaufmann Theater

6:30 p.m.

*Don't be Shy, Mr. Sacks* and *The Ragin' Cajun*

(see Saturday, November 8, Kaufmann Theater, 3:15 p.m.)

Program Code: M25

9:00 p.m.

*Cabra Marcada Para Morrer (Twenty Years Later)*, Brazil, 119 minutes

The 1964 military coup halted the production of a feature film in the northeast region of Brazil. The storyline was the true tale of a brutally murdered farm labor leader, and it starred local talent. In 1981, the filmmaker returns to the community and the pathways of the actors turn into the film's main theme. A discussion with the director follows the film.

Program Code: M26



India: opening night, Thursday, Nov. 6, Main Auditorium

### Miriam and Ira D. Wallach Orientation Center

6:30 p.m.

*Plac a Nao Fala (Signs Don't Speak)*, Brazil, 27 minutes, video

The Waiãpi Indians of northern Brazil organize and successfully expel gold prospectors from their land. They demarcate their own land to protect it from future devastation. A discussion with the director takes place after the presentation.

Followed by:

*Trinkets & Beads*, Ecuador, 52 minutes

A modern-day David and Goliath story — the Huaorani, in the Amazon basin of Ecuador, outwit and outflank a prominent oil company. A discussion with the director follows the film.

Program Code: M27

9:00 p.m.

*Beijoqueiro (Portrait of a Serial Kisser)*, Brazil, 29 minutes

Every shining cheek is a potential target for this man, who believes his life mission is to kiss as many people as possible. He has accosted nearly 150,000 people, from the famous to the infamous, including Pope John Paul II and Frank Sinatra.

Followed by:

*Odô Yá! Life with AIDS*

(see Saturday, November 8, Linder Theater, 2:45 p.m.)

Program Code: M28

### Linder Theater

6:30 p.m.

*When Women Unite: The Story of an Uprising*

(see Saturday, November 8, Leonhardt People Center, 6:15 p.m.)

Program Code: M29

8:20 p.m.

*La Mort du Ciel d'Allah (The Other Half of Allah's Heaven)*, Algeria, 52 minutes, video

Both men and women fought for Algeria's independence. Now the women must fight for their rights.

Followed by:

*Stories of Honor and Shame, Gaza Strip*, 56 minutes, video

"We're 52 percent of society and we've ended up with nothing." Palestinian women describe their hope for themselves and their daughters.

Program Code: M30

## Wednesday, November 12

### Main Auditorium

7:00 p.m.

*Advertising Missionaries*, Papua New Guinea, 52 minutes

Missionary zeal has shifted from what it was in the early twentieth century, proselytizing religion, to advancing capitalism. A traveling theater group journeys to remote highland areas of Papua New Guinea to spread the gospel of soda and toothpaste.

Program Code: M31

8:30 p.m.

*Lampião, the King of Cangaço*, Brazil, 10 minute excerpt

A rare opportunity to see a segment of footage of Lampião, the most prominent of the early twentieth-century Brazilian outlaws. A legend in the northeast wilderness, he embodied the dual spirit of bandit and hero.

Followed by:

*O Sertão das Memórias (Landscapes of Memory)*, Brazil, 101 minutes

This film is a sublime and mesmerizing entry into the *Sertão*, the desert-like interior of northeastern Brazil and home to peasants, folk beliefs, droughts, and injustice. The mystical tone and haunting musical score of this movie underline the images of dreams and visions that permeate the film. A discussion with the director follows the presentation.

Program Code: M32

### Kaufmann Theater

6:30 p.m.

*A Time to Wao*

Followed by:



*Fatal Reaction: New York*  
(see Friday, November 7, Linder Theater, 6:30 p.m.)  
A discussion follows each of the presentations.  
Program Code: M33

## Linder Theater

6:30 p.m.

*Gilberto Gil, Brazil*, 107 minutes, video  
Gilberto Gil, one of the giants on the Brazilian music scene, returns to his hometown and the local places that inspired his music. This film is an intimate portrait that includes revealing conversations with his mother, with the writer Jorge Amado, the musician Caetano Veloso, and others. A discussion with the director follows the film.  
Program Code: M34

8:45 p.m.

*Nobody's Business, U.S.*, 60 minutes  
"My life is nobody's business" barks the stubborn father. The filmmaker-son

disagrees, and the result is a stunningly edited film, created with love, which reveals both an ordinary and extraordinary life. A discussion with the director takes place after the showing.  
Followed by:

*It's Been a Lovely Day, Netherlands*, 70 minutes

Quiet, humorous, and thoughtful: a filmmaker documents his parents' last year on their traditional Dutch farm. A discussion with the director follows the film.

Program Code: M35

## Miriam and Ira D. Wallach Orientation Center

6:30 p.m.

*The Film of Her, U.S.*, 12 minutes, video  
Combining the documentary form with a poetic narrative, this film

celebrates the rediscovery of a film collection that was stored in the vaults of the Library of Congress and slated for incineration. A discussion with the director follows the film.

Followed by:

*Matamata & Pilipili, Congo*, 55 minutes, video

In 1950, a Belgian missionary and film fanatic directed a series of short films featuring the African Laurel and Hardy, Matamata and Pilipili.

A new addition to the world of archival film gems, this is one of the first colonial films to come from the Congo. A discussion takes place after the presentation.

Program Code: M36

8:45 p.m.

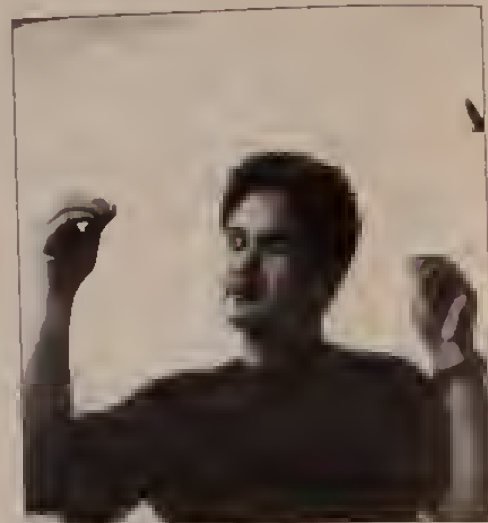
*Waiting*

Followed by:

*Tchuma-Tchato*

(see Saturday, November 8, Kaufmann Theater, 6:30 p.m.)

Program Code: M37



*Sons*; Friday Nov. 7, Main Auditorium, 9:45 p.m.

*The Margaret Mead Film and Video Festival* receives generous support from the New York State Council on the Arts and the Natural Heritage Trust. Support has also been provided this year by the Brazilian Consulate, N.Y.; Education Division, Brooklyn Museum of Art; and NYU's Program in Media, Culture, and History, Anthropology Department.

# Education Department — Second Notice

## Evening Lecture Series

The following Department of Education programs were described in detail in the September issue of Rotunda. To receive the full brochure of programs for the coming season, please call (212) 769-5310.

### Mountain Wildflowers of the North

Four Mondays, October 6-27  
2:30-4:00 p.m.  
Program Code: ED97217L  
Four Thursdays, October 9-30  
7:00-8:30 p.m.  
Program Code: ED97218L.  
\$25; \$22.50 for Members

### What's New in Geology

Four Tuesdays, October 7-28  
7:00-8:30 p.m.  
\$30; \$27 for Members  
Program Code: ED97220L.

### Between Earth and Sky:

*The Spirited Ecology of the Tibetan and Colorado Plateaus*  
Two Mondays, October 20 and 27  
7:00-8:30 p.m.  
\$15; \$13.50 for Members  
Program Code: ED97216L.

### Excess and Spectacle: Redefining Culture in the World Today

Four Thursdays, October 23 and 30, November 6 and 13  
7:00-8:30 p.m.  
\$30; \$27 for Members  
Program Code: ED97221L.

### The Mistaken Extinction: Dinosaur Evolution and the Origin of Birds

Tuesday, October 28  
7:00-8:30 p.m.  
\$10; \$9 for Members  
Program Code: ED97215L.

### A Natural History of Parenting

Wednesday, November 19  
7:00-8:30 p.m.  
\$10; \$9 for Members  
Program Code: ED97223L.

### Behavioral and Ecological Diversity in Primates through Film

Four Wednesdays, beginning November 19  
7:00-9:00 p.m.  
\$25; \$22.50 for Members  
Program Code: ED97224L.

### Peoples of the Circumpacific Region

Four Mondays, beginning Nov. 24  
7:00-8:30 p.m.  
\$25; \$22.50 for Members  
Program Code: ED97225L.

### Contemporary Native American Architecture: Cultural Regeneration and Creativity

Tuesday, November 25  
7:00-8:30 p.m.  
\$10; \$9 for Members  
Program Code: ED97226L.

## Workshops, Walking Tours, and Field Trips

### Geology by Boat or on Foot

Led by Sidney Horenstein  
*Palisades Geology Walking Tour*  
Saturday, October 4  
10:00 a.m.-4:00 p.m.  
\$30; Program Code: ED97330X  
*Hudson Valley Cruise*  
Saturday, November 1  
11:00 a.m.-3:00 p.m.  
\$35; Program Code: ED97329X

### Introduction to Primates: A Two-Day Workshop

Friday and Saturday, Oct. 24 and 25  
6:30-8:30 p.m.  
\$100; Program Code: ED97329X

### Early Winter Walks

4:00-6:00 p.m.

\$10 each or \$25 for the series

Led by Sidney Horenstein

### Exploring the Museum's Backyard

Tuesday, November 18  
Program Code: ED97331X

### Riverside Park

Wednesday, November 19  
Program Code: ED97332X

### The Museum Block

Thursday, November 20  
Program Code: ED97333X

## Free Lectures and Performances

### The Jesup Expedition

Four Saturdays, starting November 22  
1:00-3:30 p.m.  
Kaufmann Theater

This free lecture series, held in conjunction with the exhibition *Drawing Shasows to Stone: Photographing North Pacific Peoples, 1897-1902*, examines the name, historic role, and context of this major scientific event.

### Caribbean Celebration Leonhardt People Center

The Education Department's Multicultural Programs present living cultural traditions and cross-cultural experiences from around the world. Programs are designed for audiences of all ages. Performances, talks, films, craft workshops, and lecture demonstrations that impart information on diverse cultural traditions and issues will be held on the first three weekends of October. For a full schedule of events for the Caribbean Celebration, call (212) 769-5315.

You can make reservations for these programs by calling (212) 769-5200 or by filling out the coupon on page 9.

## Children's Sunday Workshops

Please note that the workshop planned for November 2, "A Whale's Tale," has been canceled. For the three-hour workshops, children should bring a box lunch. For more information about these workshops, please call (212) 769-5169.

### Halloween Surprise

October 19; 10:30 a.m.-1:30 p.m.  
\$25; Program Code: ED97410C

### Kitchen Chemistry

October 19; 10:30 a.m.-1:30 p.m.  
\$25; Program Code: ED97411C

### Puppets

November 2; 10:30 a.m.-1:30 p.m.  
\$25; Program Code: ED97413C

### Beautiful Swimmers

November 9; 10:30 a.m.-1:30 p.m.  
\$25; Program Code: ED97409C

### From Sheep to Clothes

November 9; 10:30 a.m.-1:30 p.m.  
\$25; Program Code: ED97414C

### Animal Puppets

November 16; 10:30 a.m.-12:00 p.m.  
\$20; Program Code: ED97415C

### Drawing Fossils

November 16; 10:30 a.m.-1:30 p.m.  
\$25; Program Code: ED97416C

### How We Hear and How We See

November 23; 10:30 a.m.-1:30 p.m.  
\$25; Program Code: ED97417C

### Evi-Dents

November 23; 10:30 a.m.-1:30 p.m.  
\$25; Program Code: ED97418C



Provide For Your Future. . .



. . . And Enrich The Lives Of Others.

Through a gift to the American Museum of Natural History that provides lifetime income, you promote preservation and extend understanding of the natural world for generations to come and, at the same time, provide for your own retirement. If you are age 55 or older, with a gift of \$5,000 or more you can:

- receive income for life, for yourself and/or a loved one;
- enjoy an immediate income tax deduction;
- minimize or eliminate capital gains tax when low-yield, highly appreciated stocks are sold to re-invest for higher income;
- reduce the cost — through the combined benefits of an income stream and an immediate income tax deduction — of a gift important to the Museum's future.

For more information, please call toll-free 1 (800) 453-5734 or complete and return this confidential reply form to Jane C. Palmer, Director of Planned Giving, Office of Development, American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192.

Please send me information on gifts that provide lifetime income, tax savings, and other benefits, while enriching the lives of others:

Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
Phone (home): \_\_\_\_\_ (office): \_\_\_\_\_

Tax and other financial benefits may depend on age.

My (our) age(s): \_\_\_\_\_, \_\_\_\_\_

Your reply is confidential and implies no obligation. 10/97

Enjoy our glittering  
**DIAMOND BRUNCH**  
and visit  
**The Nature of Diamonds**  
**Exhibition**



Sundays:

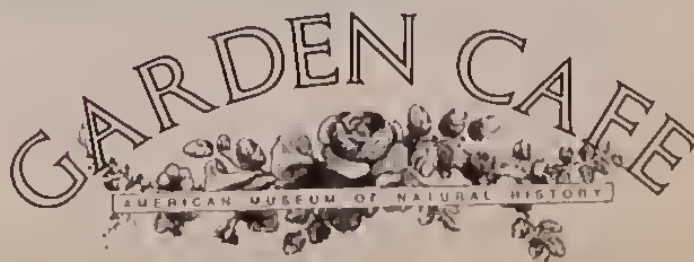
November 16 and 30 • December 7 • January 11  
and 18

Museum members \$22.95

Non-members \$29.95

includes our lavish **DIAMOND BRUNCH**,  
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Exhibition,  
tax and gratuities

For pre-paid reservations,  
please call (212) 769 5200



## Central Reservations Coupon

**BY PHONE** Call (212) 769-5200 six days a week — Monday through Friday from 8:00 a.m. to 6:00 p.m. and Saturday from 10:00 a.m. to 6:00 p.m. Have your credit card and membership category ready when you call.

**BY MAIL** Send the registration form below to Central Reservations, American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192. Make checks payable to the American Museum of Natural History.

### Membership Programs

Program Title	Code	Date/Time	# of Membership Reservations	# of non-Membership Reservations	Total Amount Enclosed
_____	_____	_____	_____	_____	\$ _____
_____	_____	_____	_____	_____	\$ _____
_____	_____	_____	_____	_____	\$ _____
_____	_____	_____	_____	_____	\$ _____
Education Department	_____	_____	_____	_____	\$ _____
Margaret Mead Film Festival	_____	_____	_____	_____	\$ _____
_____	_____	_____	_____	_____	\$ _____
_____	_____	_____	_____	_____	\$ _____
_____	_____	_____	_____	_____	\$ _____
Hayden Planetarium	_____	_____	_____	_____	\$ _____
_____	_____	_____	_____	_____	\$ _____
_____	_____	_____	_____	_____	\$ _____
_____	_____	_____	_____	_____	\$ _____
Total Amount Enclosed:					\$ _____

Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
Membership Category: \_\_\_\_\_

Phone (day): \_\_\_\_\_ (eve.): \_\_\_\_\_  
Charge my: Amer. Ex. \_\_\_\_\_ Visa \_\_\_\_\_ Master Card \_\_\_\_\_  
Card Number: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
Signature: \_\_\_\_\_ Expiration Date: \_\_\_\_\_



## Lori Grinker: Middle East Journals, Continued

Tuesday, November 18

7:00 p.m.

Linder Theater

\$10; \$8 for Members

Program Code: MM5-11



© 1995 Lori Grinker/CONTACT Press Images

Al Nour Wal-Amal Rehabilitation Center, Cairo, Egypt; young girls' orchestra on a day trip to the pyramids.

Lori Grinker is the photojournalist featured next month in the second of a special series of lectures co-sponsored by the Membership Department and the Museum's *Natural History* magazine. Grinker will focus her talk on the Middle East, where she has worked on a variety of subjects, including an Egyptian orchestra of blind women.

Grinker began her career with a college assignment about a young boxer, during which time she met the 13-year-old Mike Tyson, whose life she documented for the following decade.

Her work since then, more social-humanistic in nature, has included two photo essays for the Op-Ed page of *The New York Times* — one covering the plight of the Dinka in southern Sudan and one on the subject of war veterans from around the globe — as well as assignments in Southeast Asia, Africa, the

USSR, and throughout the United States.

Her photographs have been exhibited in museums and galleries both here and abroad. Grinker's book of black-and-white photographs — *The Invisible Thread: A Portrait of Jewish American Women* (Jewish Publication Society, 1989) — is the culmination of six years' work, and is now in its fourth printing.

She was awarded a World Press Photo first-place prize for her photo story on the orchestra at Cairo's school for blind women ("Sounds of Light and Hope," *Natural History*, 11/95.)

Grinker, who comes to this lecture shortly after a working stay in Bosnia, where she continued researching and taking pictures for a long-term photographic project on war veterans, will show slides of her work, discuss her professional experiences, and respond to questions from the audience.

## Hayden Happenings

While construction is underway on the new Frederick Phineas and Sandra Priest Rose Center for Earth and Space, the Hayden Planetarium is continuing to offer a rich and varied array of lectures and annual courses for participants at all levels of learning. Upcoming lectures in the two series offered are listed below. For tickets, call Central Reservations at (212) 769-5200 or use the coupon on page 9. These Monday evening lectures all take place in the Miriam and Ira D. Wallach Orientation Center on the fourth floor. Please note that Members' prices also apply to students and senior citizens.

### Distinguished Authors in Astrophysics

#### Our Place in Space: Cosmic Impacts and Survival of the Luckiest

October 20

Gerrit Verschuur, adjunct professor, Department of Physics, University of Memphis  
\$8; \$7 for Members  
Program Code: HP105L

#### Beyond Star Trek: The Physics of Science Fiction

November 17

Lawrence Krauss,  
Department of Physics,  
Case Western Reserve University, Ohio  
\$16; \$14 for Members  
Program Code: HP106L

#### What if the Moon Didn't Exist?

December 8

Neil Comins, professor of physics  
and astronomy, University of Maine  
\$8; \$7 for Members  
Program Code: HP107L

### Frontiers in Astrophysics

#### The Long-Term Fate of the Universe

October 6

Fred C. Adams, associate professor  
of physics, University of Michigan  
\$8; \$7 for Members  
Program Code: HP101L

#### Gravitational Lenses as Cosmological Telescopes

November 10

Wes Colley, Harvard Smithsonian Center  
for Astrophysics, Cambridge  
\$8; \$7 for Members  
Program Code: HP102L

#### Hubble Space Telescope Observations of Massive Galactic Black Holes

December 1

Roland van der Marel,  
Institute for Advanced Study  
\$8; \$7 for Members  
Program Code: HP103L

## A Halloween of Natural History

Friday, October 31

3:00-8:00 p.m.

\$5 per-person

Admission



Spooky monsters, ghoulis, goblins, action heroes, and fairy princesses will roam the great halls of the American Museum of Natural History on Halloween night — all in search of sweet treats, thrilling activities, and loads of scary excitement.

Last year's Halloween Party was such a success that it will be an annual tradition at the Museum. Hundreds of children, dressed in costumes of the wildest fantasy, can enjoy a safe, fun-filled Halloween evening against a backdrop of colossal dinosaurs, majestic elephants, and Native American totem poles.

Special performances,

appearances by favorite storybook characters, storytelling, and arts and crafts activities are among the many highlights. Ample amounts of treats and candy will be available. And not to be missed are the throngs of children eagerly lined up to parade their ensembles around the Theodore Roosevelt Rotunda in one of New York City's most adorable costume pageants.

The party will take place from 3:00 to 8:00 p.m. Admission includes all activities and performances. Advance reservations are recommended. Please call (212) 769-5200.



Museum Notes

HOURS  
EXHIBITION HALLS  
Mon.-Thurs. & Sun 10:00 a.m.-5:45 p.m.  
Fri. & Sat. 10:00 a.m.-8:45 p.m.  
THE MUSEUM SHOP  
Mon.-Thurs. & Sun. 10:00 a.m.-5:45 p.m.  
Fri. & Sat. 10:00 a.m.-7:45 p.m.

THE JUNIOR SHOP  
Mon.-Fri. 10:00 a.m.-4:45 p.m.  
Sat. & Sun. 10:00 a.m.-5:45 p.m.

THE MUSEUM LIBRARY  
Tues.-Fri. 11:00 a.m.-4:00 p.m.

THE NATURAL SCIENCE CENTER  
There are many wild places in the New York City area, and the Center features these habitats' plants and live animals. Closed holidays.  
Tues.-Fri. 2:00-4:30 p.m.  
Sat. & Sun. 1:00-4:30 p.m.  
Thursday storytelling 3:00 p.m.

MUSEUM DINING  
DINER SAURUS FAST SERVICE EATERY  
Daily 11:00 a.m.-4:45 p.m.

GARDEN CAFE  
Reservations: (212) 769-5865  
Lunch: Mon.-Fri. 11:30 a.m.-3:30 p.m.  
Dinner: Fri. & Sat. 5:00-7:30 p.m.  
Lunch: Sat. & Sun. 11:00 a.m.-4:00 p.m.

List of Exhibits		
EXHIBITS	LOCATION	ON VIEW UNTIL
In the Kingdom of Imerina: Early Photographs and New Textiles from Madagascar	Akeley Gallery, 2nd floor	1/4/98

SNACK CARTS  
Sat. & Sun. 11:00 a.m.-4:00 p.m.

ENTRANCES  
During Museum hours visitors can enter the building through the 77th Street entrance, the first- and second-floor Roosevelt Memorial Hall entrances (79th Street and Central Park West), or through the subway entrance. Visitors attending programs after hours can enter the building through the security entrance at 79th Street and Central Park West, down the driveway. Tickets can be picked up or purchased at the ticket desk just inside the entry.

PHONE NUMBERS  
Museum information (212) 769-5100  
Planetarium information (212) 769-5900  
Education Department (212) 769-5310  
Discovery Tours (212) 769-5700  
toll-free outside NY State: (800) 462-8687

IMAX® (212) 769-5034  
Development (212) 769-5151  
Communications (212) 769-5800  
Volunteer Office (212) 769-5566  
Museum Shop (212) 769-5150  
Library Services (212) 769-5400  
Natural History magazine (212) 769-5500  
Membership Office (212) 769-5606  
Members' Birthday Parties (212) 769-5542  
Planned Giving Office (212) 769-5119  
toll-free outside NY State: (800) 453-5734  
Central Reservations (212) 769-5200  
World Wide Web Site <http://www.amnh.org>

PARKING  
The visitor parking lot is temporarily closed. For public transportation and local parking information, call (212) 769-5606. The Museum is well served by public transportation.



Albumeen silver print from glass negative; William Ellis (1794-1872)

Antsahatsiroa, Madagascar c. 1864; Albumeen silver print from glass negative; William Ellis (1794-1872)

On View Starting October 20 in the Second-Floor Akeley Gallery

In the Kingdom of Imerina:  
Early Photographs and  
New Textiles from Madagascar

In the Kingdom of Imerina, in central Madagascar, a remarkable tradition of silk weaving flourished during the early and middle nineteenth century. Complex patterned and colored fabrics were produced on relatively rudimentary hand looms. With the opening of Madagascar to the outside world in the latter years of the century, this extraordinary tradition was unfortunately lost, only to be revived recently after a lapse of over a hundred years. During this Akeley Gallery exhibition, several examples of modern fabrics made in the traditional style are displayed, accompanied by a highly evocative series of photographs made in the 1850s and 1860s by the missionary William Ellis. These haunting images show not only silk weaving but many other aspects of Malagasy life at a time when a unique and sophisticated society was about to undergo irreversible change.

At the Museum Shops

The Museum Shops are proud to announce their first line of fine jewelry adaptations. These beautiful pieces, designed exclusively for the occasion, will be introduced with the opening of the exhibition *The Nature of Diamonds*. The designs are based on those of ancient Rome, eighteenth-century France, dynastic India, and America's Gilded Age, and are fashioned into necklaces, earrings, brooches, pendants, and rings with genuine diamonds, set in 14-karat gold. Prices range from \$95 to \$995.

Museum Shops will also be introducing a line of jewelry using uncut diamonds set in sterling silver. These unusual and elegant selections feature a bold contemporary style. Prices begin around \$35. These are just some of the treasures you will find in the Diamond Shop, opening November 1. On October 1, the new Junior Shop on the lower level will open. Bright and colorful, it is filled with a new selection of inexpensive toys, games, and collectibles for children — and even for the child in you!

Museum  
Hall Tours

These tours are free and open only to Family/Dual and Higher Members, but because of popular demand, tickets are required and limited to two reservations per person. Call Central Reservations at (212) 769-5200 or fill out the coupon on page 9.

Anthropology  
of War

Friday, November 14  
6:30 p.m.  
Program Code: MM3-11

Is war an invention? Is war an institution driven by cultural patterns? Is war necessary? March with Robert Campanile back to the possible origins of human war. Participants discuss aggression, look at weapons, and evaluate religious, economic, and political forces. They attempt to face the "real" possibility of peace on earth.

Unmentionable  
Meals

Friday, November 28  
6:30 p.m.  
Program Code: MM8-11

What better day than the day after Thanksgiving to discuss the prejudices or ignorance many Americans have in rejecting foods that are cheap, nutritious, and good to eat. Robert "sunny side up" Campanile leads participants through the plant and animal kingdoms. This a tour that definitely provides "food for thought."



Sun

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Thurs

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Sat

October 1997

American Museum of Natural History

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6:30 p.m.  
New York Mineralogical Club.  
Room 319. Free.

Rosh Hashanah

6:30 p.m.  
American Museum Music Halls  
Guided hall tour with Robert Campanile. Free.  
Tickets required.

Caribbean Celebration  
Page 8.

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Caribbean Celebration  
Page 8.

7:30 p.m.  
*Frontiers in Astrophysics* lecture  
"The Long-term Fate of the Universe." Speaker, Fred C. Adams.  
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5:00 p.m.  
Fourth Annual American  
Museum of Natural History  
Family Parly  
For ticket reservations, call (212)  
769-5932.



7:30 p.m.  
Amateur Astronomers  
Association.  
Leonhardt People Center. Free.

Yom Kippur  
Caribbean Celebration.  
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2:00 p.m.  
New York Shell Club  
Edith C. Blum Lecture Room. Free.  
Caribbean Celebration  
Page 8.

Columbus Day  
(observed)



6:00 p.m.  
Staten Island by Sea  
Geological and historical survey  
via the Staten Island Ferry. Con-  
ducted by Sidney Horenshtein.  
Page 2.

6:00 p.m.  
Staten Island by Sea  
(Repeats program of the  
previous day.)

10:00 a.m.  
Behind-the-Scenes  
in Anthropology  
Members' tours led by  
Anthropology Department staff.  
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Caribbean Celebration  
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2:00 p.m.  
New York Paleontological Society  
Room 319. Free.  
Caribbean Celebration  
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Akeley Gallery Opening  
*In the Kingdom of Inertia:  
Early Photographs and New  
Textiles from Madagascar*

7:30 p.m.  
*Distinguished Authors  
in Astronomy* lecture  
"Our Place in Space: Cosmic  
Impacts and Survival of the  
Luckiest." Speaker, Gerrit  
Verschuur. Page 10.

IMAX® Theater Schedule, Beginning mid-October

Sunday to Thursday

Friday and Saturday

Whales: 10:15 & 11:45 a.m. & 1:30 & 3:30 p.m.  
Survival Island: 11:00 a.m. & 12:30, 2:30, & 4:30 p.m.  
Cosmic Voyage: 10:15 a.m. & 2:30 p.m.  
Whales: 11:00 a.m. & 12:30 & 4:30 p.m.  
Survival Island: 11:45 a.m. & 1:30 & 3:30 p.m.

Double Features

Friday and Saturday

Whales and Survival Island: 6:00 p.m.  
Cosmic Voyage and Survival Island: 7:30 p.m.

6:30 p.m.  
The Tell Tale Tour:  
A Night of Edgar Allan Poe.  
Reading/performance  
by Robert Campanile.  
Miriam and Ira D. Wallach  
Orientation Center, 4th floor.  
Free. Tickets required.

6:30 p.m.  
Halloween: The Tour  
Guided hall tour with Robert  
Campanile. Free. Tickets  
required.

26

27


28

29

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31

Daylight Savings Ends  
The Discovery Room is open.



7:30 p.m.  
Linnaean Society of New York  
Leonhardt People Center. Free.

7:00 p.m.  
How the Mind Works  
Slide-illustrated lecture by  
cognitive scientist Steven Pinker.  
Main Auditorium. Page 2.

5:30-8:30 p.m.  
Members' Preview of the exhibi-  
tion *The Nature of Diamonds*.  
Gallery 3, third floor.  
Your valid Membership card is  
your ticket of admission.

Halloween

3:00 p.m.  
A Halloween of  
Natural History  
Second annual costume party  
at the Museum. Page 10.

Carry the Card!

Card-carrying Members can take advantage  
of our new express line on weekends if they  
enter at the second-floor Rotunda on Central  
Park West Express line tickets are for  
Museum admission only. So carry the card!

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# ROTUNDA

For Family/Dual and Higher Members of the American Museum of Natural History

Vol. 22, No. 10 November 1997

Opening November 14 in Gallery 77

## Drawing Shadows to Stone: Photographing North Pacific Peoples, 1897–1902

### The Jesup North Pacific Expedition

by Laurel Kendall, Curator  
Asian Ethnographic Collections

This month, the Museum launches its centenary celebration of the Jesup North Pacific Expedition (1897–1902), the most ambitious enterprise of its kind in the history of American anthropology. Organized by Franz Boas and financed by Morris K. Jesup, then president of the Museum, the expedition set out to prove that the first Americans had crossed over an Arctic ice bridge from Asia. Teams of anthropologists worked on the northwest coast of the Americas and in northeast Siberia.

Because many northern peoples had been decimated by epidemics and were under pressure to assimilate to Russian or North American society, members of the expedition believed they were preserving the last traces of vanishing cultures. Boas enjoined expedition anthropologists to make comprehensive portraits of the peoples they studied. They observed daily life and recorded songs and stories for linguistic analysis. They took measurements of people, objects, and buildings and collected artifacts. They took numerous photographs.

An exhibition of these photographs, *Drawing Shadows to Stone: Photographing North Pacific Peoples, 1897–1902*, is the centerpiece of the Museum's Jesup



Above left: Jack Tsacoola, Bella Bella, British Columbia; above right: a Tungus shaman; below: Yukaghir girls, Siberia.



Turn to pages 4 and 5 for a complete listing of programs celebrating the Jesup Centenary, including the Greater Pacific Film Festival.



*The anthropologists' desire to preserve an "authentic" past influenced what they chose to photograph and how they framed their pictures.*

Centenary. Curated by Barbara Mathé and Thomas Ross Miller, it illuminates how early professional anthropologists used photography in their work. Cameras recorded different kinds of data — from how people looked to how a garment was worn, a festival celebrated, or a hide tanned. Some

expedition photographs became the basis for assembling dioramas now familiar to many of the Museum's visitors. The anthropologists' desire to preserve an "authentic" past influenced what they chose to photograph and how they framed their pictures.

They used the best tools available

for their work at the time. Their wax cylinder recorders often froze into silence in the Arctic cold. Photographic subjects were required to hold poses indefinitely for the unwieldy cameras, and abundant sunlight was a photographic necessity. Glass plate negatives, developed in a field tent, were transported great distances over difficult terrain.

Franz Boas saw anthropology as a holistic enterprise; a single fieldworker studied social life, biology, folklore, and linguistics, in addition to functioning as a collector. Expedition anthropologists brought back their written observations as well as tangible objects, visual images, and recordings of local languages. They produced a shelf of scholarly monographs considered "classics" today. Their collections fill the Museum's Hall of Northwest Coast Indians and the Siberian section of the Gardner D. Stout Hall of Asian Peoples. Archives housing photographs and expedition records are an important resource for scholars, as well as for those northern peoples who are actively engaged in revitalizing and preserving their cultures today.

One hundred years after the Jesup Expedition, electronic technology has

succeeded in bringing these disparate archival elements together in new ways. One of this exhibition's highlights is a "sound station," where visitors can see photographs combined with texts and original sound recordings. In a resource center, visitors can examine expedition correspondence and look over a broad sample of photographs and artifacts on a computerized data base. In addition, a computer terminal in the Museum's library allows visitors to explore, for the first time ever, the full range of Jesup Expedition material.

A film festival and lecture series, in addition to craft demonstrations and a performing arts program — all held in conjunction with the exhibition — reveal the richness of these northern cultures and explore the challenges that northern peoples face one hundred years after the Jesup Expedition.



Lawrence Krauss

### Beyond Star Trek: The Physics of Science Fiction

In this lecture program, the audience sees some of its favorite science-fiction film clips and astrophysicist Lawrence Krauss answers the inevitable question: "Could this ever really happen?" Krauss helps the audience catch a glimpse of the fascinating world at the forefront of modern physics.

Turn to page 7 to find out more about Hayden Happenings.



## The Life and Times of the Man Who Invented the Telephone

Tuesday, December 2  
7:00 p.m.  
Kaufmann Theater  
\$10; \$8 for Members  
Program Code: MM1-12



Left: Alexander Graham Bell with granddaughters Gertrude, Lilian, and Mabel Grosvenor at his Nova Scotia home in 1908. Right: On October 18, 1892, Bell placed the long-distance call that inaugurated service from New York to Chicago.

Join Edwin S. Grosvenor for a slide-lecture on his great-grandfather, the quintessential American thinker and inventor Alexander Graham Bell. Co-author, along with Morgan Wesson, of the first comprehensive biography of Bell to be published in twenty-five years, Grosvenor, a former magazine editor and publisher, uncovers in this talk

the scope of Bell's myriad achievements.

While Bell's most famous invention made modern communications possible, many of his lesser-known accomplishments aided and saved lives. His passions went beyond those of most natural-born inventors. Bell was a lifelong teacher of the deaf and introduced Helen Keller to

Annie Sullivan. He collaborated with Maria Montessori in the organization of some of her first classes and lectured widely on topics as innovative in his time as they are commonplace today: solar energy, the threat of declining natural resources, and global warming. It was Bell, in fact, who coined the term "the greenhouse effect."

To write their biography *Alexander Graham Bell: The Life and Times of the Man Who Invented the Telephone*, published by Abrams on the 150th anniversary of Bell's birth, Grosvenor and Wesson pored over thousands of letters, documents, and never-before-published photographs.

Grosvenor, CEO and editorial director of Leader-Learning, an on-line educational resource and bookseller, will tell family anecdotes about this complex figure with an extraordinary capacity for creativity and vision. The program concludes with a question-and-answer session, and the book is available for purchase and signing.

Neil Tyson Tackles  
Unanswered Questions About the Universe

## If the Sun Were to Explode Tomorrow, What Would Happen to Earth?

And Other Pleasant Questions Asked by the Public

Thursday, December 18  
7:00 p.m.  
Kaufmann Theater  
Free

We've all harbored unanswered questions at one time or another about the universe, but astrophysicist Neil deGrasse Tyson decided to do something about it.

His book *Merlin's Tour of the Universe*, which introduces the playful character Merlin, answers more than 200 questions asked by people in the general public. While

many questions do dwell on cosmic catastrophe, others span the range of human curiosity — from Mars to quasars, from black holes to blue ntoons.

During this slide-illustrated program, Tyson, the Frederick P. Rose Director of the Hayden Planetarium, guides the audience through some of the most compelling questions asked by the public and answered by Merlin, leaving ample time for questions from the audience before the evening concludes.

Tyson also contributes a monthly essay on the universe to *Natural History* magazine. *Merlin's Tour of the Universe*, originally published by Columbia University Press in 1989, has been released this year in paperback by Doubleday. Copies of this new edition are available for purchase and signing after the program.



Neil deGrasse Tyson

## Second Notice

The Search and Discovery of Our Earliest Ancestors

Tuesday, November 4  
Meet Meave Leakey, leader of the fossil-hunting Leakey family tradition, and learn about their search to uncover the origin and nature of hominids who lived in Africa four million years ago.  
Time: 7:00 p.m.  
\$25; \$20 for Members  
Program Code: MM1-11



Meave Leakey

Fossils and the Delaware Water Gap

Tuesday, November 11  
Join Sidney Horenstein on a geological and fossil-collecting tour along the Delaware River and in areas of the Appalachians. Collect fossils from a middle Devonian coral reef.  
Time: 8:00 a.m.-6:00 p.m.  
\$65; limited to Family/Dual and Higher Members  
Program Code: MM2-11

How It Was with Doods

Saturday, November 22  
Together with your child, learn the techniques of transforming family life experiences into prose with photographer and author Carol Cavitha Hopcraft, co-author, with her son, Xan, of *How It Was with Doods: A True Story from Africa*.  
\$33 for each child/adult couple; \$30 for Member couples  
10:00-11:30 a.m. — Program Code: MM7A-11  
2:00-3:30 p.m. — Program Code: MM7B-11

Lori Grinker:  
Middle East Journals,  
Continued

Tuesday, November 18  
Listen to photojournalist Lori Grinker talk about her work and experiences in the Middle East, see a wide range of her social-humanistic photographic work, and participate in a question-and-answer session in a program co-sponsored by the Museum's *Natural History* magazine.  
Time: 7:00 p.m.  
\$10; \$8 for Members  
Program Code: MM5-11

## ROTUNDA

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# Members' Family Holiday Party

DATE:  
Sunday, December 14

TIME:  
3:00-5:00 p.m.

PLACE:  
Hall of Ocean Life



David Grover & the Big Bear Band

You're invited! Bring the entire family for a holiday adventure "under the sea" in the Museum's famous Hall of Ocean Life with David Grover and the Big Bear Band.

Children of all ages can dance, sing, and party to their heart's delight to the music of this PBS-Award-winning family/folk trio. The Big Bear Band plays much-loved original songs celebrating Chanukah and Christmas, as well as traditional favorites and other popular original tunes.

At this wondrous celebration of the holidays, you can do the "Lobster Dance" under the great blue whale and hear the group's newest release, *Surfing with Dinosaurs*. During intermissions, you and your family may join an OrigamiUSA workshop. Learn to create festive paper boats, birds, and trees to deck your own halls.

So put on your holiday finery, shine up your dancing shoes, and come to the Members' Holiday party!

Admission: \$14 for Adults; \$10 for children under 12  
Limited to Family/Dual and Higher Members  
Program Code: MM2-12



Members' Children and Adult Workshop

## Make Your Own Gingerbread House

Friday, Saturday, and Sunday, December 19-21

Choice of sessions:  
10:00 a.m.-12:00 p.m. or  
1:00-3:00 p.m.

For children ages 5-10

\$35 per child/adult couple

Limited to Family/Dual and Higher Members

suggestions along the way. The only health hazard on our construction site involves the waistline — the sugar and vanilla index is high!

Join "consultant" June Myles for this family workshop. From foundation to roof, she'll show you how to make your own, no-bake gingerbread fantasy house. Once the foundations and the walls are complete, children and adults can let their imaginations run wild amid the confectionery.

Gingerbread house-building at the Museum is now an annual tradition to which Members often return, erecting a new (and improved!) version each year. Join our building ranks. Fill out the coupon on page 6 or call Central Reservations with your credit card number, using the program codes below.

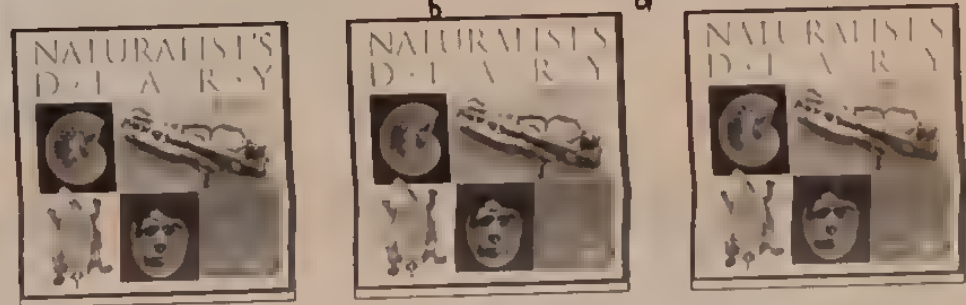
Program Codes:  
December 19 — MM3A-12  
December 20 — MM3B-12  
December 21 — MM3C-12

# Members' Museum Hall Tours

These tours are free and open only to Family/Dual and Higher Members, but because of popular demand, tickets are required and limited to two per person. Tickets can be reserved at the beginning of each month by calling Central Reservations at (212) 769-5200.

**A Dickens of a Scrooge**  
Friday, December 12  
Leonhardt People Center  
6:30 p.m.  
**Program Code: MM4-12**  
Robert Campanile re-creates the character of Scrooge with a little help from three ghosts to remind us of why we celebrate and why we need one another.

**Oh Boy! A Toy!**  
Friday, December 19  
6:30 p.m.  
**Program Code: MM5-12**  
Robert "Gepetto" Campanile leads participants on a holiday "toy" hunt through the Museum's anthropology halls to discover the fun and games that have always been a part of humankind's activities.



## Give a Gift for All Seasons A Family/Dual Membership in the American Museum of Natural History

For only \$50 for the entire year, your special friends and relatives will receive all the privileges of membership, including Museum admission for two adults and four children, a subscription to our fascinating *Natural History* magazine, and much more. As a special holiday bonus, we will send AMNH's beautiful 1998 engagement calendar, *Naturalist's Diary* (a \$13.95 value, pictured above), along with a personalized holiday card to announce your thoughtful gift.

Please send a one-year Family/Dual membership in the name(s) listed below:

Recipient's Name		Recipient's Name	
Street Address		Street Address	
City		City	
State Zip		State Zip	
Enclosed is my check for \$			
Please charge to my: <input type="checkbox"/> Visa <input type="checkbox"/> MasterCard <input type="checkbox"/> AmExpre			
Card Number			
Signature			
Your Name			
Street Address		Apt.	
City		State Zip	
I understand that this special offer, which expires December 31, 1997, is not valid for renewing my own membership			

Please mail this form, with your check, to: AMNH, Membership Dept., Central Park West & 79th St., New York, N.Y. 10024-5192.



# Celebrating the Jesup Centenary

Greater North Pacific Film Festival

## Totems and Shamans: Cultural Revival on the Big Screen

Saturday and Sunday, November 15-16

Kaufmann Theater

Free with Museum admission

Seating is first-come, first-served

### Saturday

#### Northwest Coast

6:30 p.m.

*From the Elders: At the Time of Whaling*  
Sarah Elder, Leonard Kammerling.  
1974. 38 min. 16mm film

An elder from the Yupik-speaking community on St. Lawrence Island in the Bering Sea recounts the ways of the vanishing whaling tradition. Long sequences provide breathtaking views of the whale pursuit, which now utilizes contemporary as well as ancient techniques. This film is an example of "community-determined" filmmaking, in which the participants together forge the direction and content of the project. A discussion with Sarah Elder takes place after the screening.

7:30 p.m.

*Carved from the Heart*  
Ellen Frankensrein, Louise Brady.  
1997. 30 min. Video. U.S. Premiere



Center: *From the Elders: At the Time of Whaling*; Saturday, 6:30 p.m. (photo: Len Kammerling). Above: *Bear and Shaman*, Sunday, 7:40 p.m.

When his son dies from a cocaine overdose, Tsimshian master carver Stan Marsden copes with his mourning in an innovative way. He gathers together the community of Craig, on Prince of Wales Island, to carve and raise a "healing" totem pole. Through this project, which ties traditional symbols to contemporary issues, members of the Tlingit, Haida, and Tsimshian community who have gone through the loss of family and friends due to alcohol and drug abuse find a way to collectively grieve their loved ones. A discussion with the filmmakers takes place directly after the screening.

8:30 p.m.

*Qatnuwas: People Gather Together*  
Barb Cranmer. 1996. 59 min. Video. N.Y. Premiere

"We viewed that land and sea through the eyes of our ancestors." Native communities of the Northwest Coast embark on an emotional voyage of rediscovery through a historic revival of their canoeing tradition. A discussion takes place after the screening.

### Sunday

#### Siberia

6:30 p.m.

*Cuckoo's Nephew*  
O. Cherkassova. 1993. 10 minutes. Video

A shamanic journey depicted through animation.

6:45 p.m.

*Time of Dreams*  
Andris Slapins.  
1985. Video excerpts  
Slapins, a Latvian ethnographic filmmaker, was shot and killed by Soviet guards while documenting an independence demonstration in Riga, Latvia.

These excerpts were part of his unfinished film epic — covering the period from the 1930s to the 1980s — on resistance efforts by shamans opposed to Soviet repression of their traditional spiritual expression. The narration was never completed; only natural sounds and some conversation can be heard. A discussion takes place after the screening.

7:00 p.m.

*Return of the Ghost People*  
Edic Ponomarev. 1996. 20 min. Video. U. S. Premiere

This video about the Koryak of

Kamcharka, whose existence revolved around the breeding of reindeer, chronicles a lost way of life. It is one of the most powerful expressions of nostalgia to emerge thus far from post-Soviet Siberia and the Far East.

7:40 p.m.

*Bear and Shaman*  
Raissa Ernazarova. Video. 1995. 37 min. N.Y. Premiere

"Shamans never say that they are shamans." In this community on the shores of the Amur and the Tatarsky Strait in eastern Siberia, they are called "grandfathers." We get a glimpse into the life and healing practices of Ulchian shaman Mikhail Duvan and the contradictions inherent in the concept of cultural revival. A discussion with the director takes place after the screening.

9:00 p.m.

*Prediction of Chohotuy*  
Viacheslav Semenov. 1996. 48 min. Video. U.S. Premiere  
Matriona Kurheltinova, a 108-year-old Evenki female shaman, is one of the most famous of her kind in the twentieth century, and is shown in this video in her reindeer breeding camp.

For more details on these presentations, please call 769-5305. Programs subject to change.

## Lecture Series

The Jesup Expedition Lecture Series  
Four Saturdays  
beginning November 22  
1:00-3:30 p.m.  
Kaufmann Theater  
Free

One hundred years ago, a group of anthropologists set out to discover the nature of the link between the peoples of Siberia and those of the Pacific northwest coast of North America. Traveling by boat, train, dogsled, reindeer sleigh, raft, on horseback, and on foot, these men and women compiled exhaustive data on all aspects of the culture groups they encountered. This film and lecture series examines the nature, historic role, and context of this major scientific enterprise. The schedule of lectures is as follows.

November 22 — *The Jesup Expedition*; Sergei Kan, Department of Anthropology, Dartmouth College  
December 13 — *The Next 100 Years of the Jesup Collection*; Laurel Kendall, Department of Anthropology, American Museum of Natural History  
January 17 — *Collections and Acquisitions*; Paula Rubel, Department of Anthropology, Barnard College  
February 7 — *Jesup History and Remembrances of Times Past*; Bruce Grant, Department of Anthropology, Swarthmore College

Peoples of the Circumpacific Region  
Four Mondays  
beginning November 24  
7:00-8:30 p.m.  
\$25; \$22.50 for Members  
Program Code: ED97225L

This lecture series highlights the fascinating cultures of the North Pacific Rim. The talks capture the wide diversity of these cultures, as well as their historical development. The schedule of lectures is as follows:

November 24 — *Circumpacific Peoples Then and Now*; William W. Fitzhugh, Arctic Studies Center, Smithsonian Institution  
December 1 — *Life in a Lost Village*; David Koesler, Anthropology Department, Columbia University  
December 8 — *Contemporary Village Life in Siberia: Neither the Igloo nor the Yurt*; Igor Krupnik, Arctic Studies Center-Smithsonian Institution  
December 15 — *Shamans and Ethnic Identity*; Piers Vitebsky, Scott Polar Research Institute



Model of a storehouse

The Jesup Expedition and Northwest Coast Art and Representation  
Two Fridays, December 5 and 12  
7:00-8:30 p.m.  
Free

In this special program, guest curators Thomas R. Miller and Barbara Mathé explore two of the exhibition's major themes: sound and image.

Miller sees the rare recordings.



# Celebrating the Jesup Centenary

together with the photographs, objects, and texts collected on the expedition, as forming a holistic, multimedia representation of traditional native cultures. In his lecture, he uses sounds and images to trace the history of these field recordings. He explains modern restoration techniques used on the fragile wax cylinders and demonstrates continuity and change in song styles with contemporary material from the area of the expedition.

Members of the Jesup team also made photographs to be used as specific references to create Museum dioramas and miniature groups showing the cultures and peoples of the northwest coast of North America and Siberia. They commissioned and collected objects made by native North Pacific peoples. In her slide-illustrated lecture, Mathé will present many of these rarely seen photographs and artifacts brought back to the Museum by the Jesup team.

## Multicultural Programs

The following programs are free with Museum admission.

**Three Generations of Tlingit Weavers**  
Thursday, November 13  
11:00 a.m.–2:00 p.m.  
Friday, November 14; 1:00–5:00 p.m.  
Hall of Northwest Coast Indians

During the hours listed above, visitors to the Hall of Northwest Coast Indians can see demonstrations of the unusual weaving techniques found in raven's-tail robes and Tlingit basketry by Marie Laws, her daughter, Teri Roskar, and her granddaughter, Erin Roskar.

**Saturday and Sunday**  
**November 15–16**  
**Leonhardt People Center, 2nd floor**

These events take place on Saturday in the schedule in which they are listed

below and will be repeated on Sunday during the same hours.

**Celebration 1994**  
1:00–2:00 p.m.

Produced by the SeAlaska Heritage Foundation in 1994, this film is a documentary focusing on traditional native legends. A Tlingit performing group enacts tales of how Raven brought the water, sun, stars, and moon to the world.

**Spruce Root and Cedar Bark Gathering**  
2:00–2:30 p.m. and  
3:30–4:00 p.m.

This talk and slide presentation by Erin Roskar illustrates the process of gathering and preparing materials in the field to make baskets woven from spruce root and cedar.

**Sitka/Kruzof Island Robe**  
2:30–3:30 p.m.

A rare fragment of an authentic burial blanket, or robe, woven by Tlingit craftsmen was found in 1931 by a group of schoolboys on a field trip near Sitka, in southeast Alaska. At this talk, Marie Laws relates the story of the discovery of this fragment, which is now a part of the Museum's collections, and explains its significance in revitalizing the art form, which died out in the late 1770s.

**Lituya Bay Robe**  
4:00–5:00 p.m.  
At this demonstration/talk, Teri Roskar



Above: Even (Lamut) reindeer herders in Siberia

shows how traditional robe patterns illustrate dramatic accounts of historic and contemporary Tlingit events from the area of Lituya Bay. Three generations of Tlingit weavers — Roskar, her mother, and daughter — demonstrate their techniques.

Public programming for the Jesup Centenary Celebration is made possible by support from The Trust for Mutual Understanding, the Lucius and Eva Eastman Fund, Inc., and the Alaska State Council on the Arts. These events are also made possible by public funds from the New York State Council on the Arts, a State Agency.



## Membership Programs

**Members' Sculpture Workshop**  
**Creating Totemic**  
**Clan-Crest Columns**

**Saturday, November 15**

Follow in the footsteps of memorial pole carvers of the Northwest Coast by sculpting your own totemic clan-crest column, or totem pole. Under the guidance of Pamela Popeson, former director of the Museum's Fossil Reproductions Department, learn simple sculpting techniques and create tiered columns of totemic images related to your own individual or family mythologies, depicting your own personal "power animal."

**Time: 1:00–4:00 p.m.**

Edith C. Blum Lecture Room

\$33; \$28 for Family/Dual and Higher Members

**Program Code: MM4-11**

**Members' Private**  
**Curator-Led Tour of**  
**Drawing Shadows to Stone:**  
**Photographing North Pacific**  
**Peoples, 1897–1902**

**Thursday, November 20**

Learn first-hand about a research project of such scientific importance and geographical scope that it remains the most significant in the history of American anthropology. Join Barbara Mathé and Thomas Ross Miller, guest curators of this new exhibition in Gallery 77, as they lead Members on a special guided tour of the centerpiece of the Jesup Centennial Celebration.

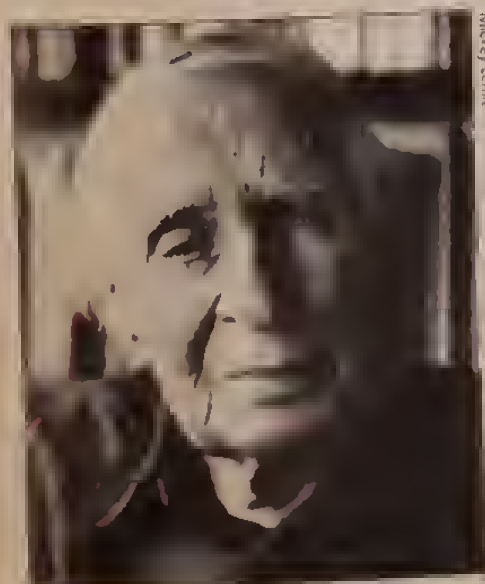
**Time: 7:00 p.m.**

Gallery 77, first floor

\$18, and limited to Family/Dual and Higher Members

**Program Code: MM6-11**

## Department of Education Programs



Sir Laurens van der Post, from the film biography *Hasten Slowly*

### Tribute to Sir Laurens van der Post

**Wednesday, December 10**  
**7:00–9:30 p.m.**  
**Free**

"Meaning transfigures all. And once what you are doing has for you meaning, it is irrelevant whether you are happy or unhappy. You are content. You're not alone in your spirit. You belong."

Sir Laurens van der Post

This free public event honors the memory of Sir Laurens van der Post one year after his death. A South African writer, filmmaker, cultural anthropologist, statesman, and visionary, van der Post was one of the great figures of our time.

This tribute weaves together stories from van der Post's extraordinary life, from his childhood in the South African bush to his lifelong struggles against apartheid and the three years he spent in a Japanese prisoner-of-war camp in Java. He authored twenty-five books, was a friend and biographer of Carl Jung, a friend and preserver of the culture of the Kalahari Bushmen, and a frequent adviser to presidents, prime

ministers, and members of royalty throughout the world.

The program includes presentations by speakers from South Africa, Switzerland, and England who were closely acquainted with various aspects of Sir Laurens' multifaceted life, and concludes with the presentation of the award-winning film biography, *Hasten Slowly*, produced by Mickey Lemle. The event is co-sponsored by *Parabola* magazine and The Inetfairth Center of New York, with the support of the van Waveren Foundation.

For additional information, please call (212) 769-5176.

(program listings continue on page 6)



(Department of Education program listings, continued from page 5)

### Festival of Diamonds on Film

Saturday and Sunday  
November 22-23  
10:30 a.m.-3:30 p.m.  
Kaufmann Theater

#### Free

This film series presents fictional and documentary works that portray our economic, cultural, and scientific views about diamonds. Call (212) 769-5176 for a flyer with a full description of the program.

### How to Mine for Diamonds

Saturday, December 13  
Three sessions:  
1:00, 2:00, or 3:00 p.m.  
Kaufmann Theater  
\$8

Program Code: ED97328X

Led by prospector and author Henry F. Kennedy, this hands-on workshop is preceded by a brief, slide-illustrated talk. Participants learn the techniques used in diamond prospecting and mining.

### Dreaming of Diamonds

Tuesday, December 9  
7:00-8:30 p.m.

#### Free

Prospector, explorer, and author Henry F. Kennedy discusses mining for diamonds and gemstones in Brazil,

where the techniques employed by solitary prospectors are reminiscent of the California gold rush of 1849. His slide-illustrated lecture covers an explanation of the clues prospectors look for to indicate valuable deposits, the tools of their trade, and the natural and political challenges of mining, including the implications of article 171 to the Brazilian Constitution.

## Second Notice

### Evening Lecture Series

#### A Natural History of Parenting

Wednesday, November 19  
7:00-8:30 p.m.  
\$10; \$9 for Members  
Program Code: ED97223L

#### Behavioral and Ecological Diversity in Primates Through Film

Four Wednesdays, beginning  
November 19  
7:00-9:00 p.m.  
\$25; \$22.50 for Members  
Program Code: ED97224L

#### Contemporary Native American Architecture: Cultural Regeneration and Creativity

Tuesday, November 25  
7:00-8:30 p.m.  
\$10; \$9 for Members  
Program Code: ED97226L

## Workshops, Walking Tours, and Field Trips

### Introduction to Primates: A Two-Day Workshop

Friday and Saturday  
October 24 and 25  
6:30-8:30 p.m.  
\$100; Program Code: ED97329X

### Early Winter Walks

4:00-6:00 p.m.  
\$10 each or \$25 for the series  
Led by Sidney Horenstein

### Exploring the Museum's Backyard

Tuesday, November 18  
Program Code: ED97331X  
**Riverside Park**  
Wednesday, November 19  
Program Code: ED97332X  
**The Museum Block**  
Thursday, November 20  
Program Code: ED97333X

### Geology on Foot with Sidney Horenstein:

**Manhattan's Southern Tip**  
Saturday, January 24  
A series of three walking trips  
10:00 a.m., 1:00 p.m., and 3:00 p.m.  
\$10 each or \$25 for the series

### Battery Park

Program Code: ED97334X  
**Broadway**  
Program Code: ED97335X  
**City Hall and Foley Square**  
Program Code: ED97336X

## Children's Workshops

For three-hour workshops, children should bring a box lunch.

### Beautiful Swimmers

November 9; 10:30 a.m.-1:30 p.m.  
\$25; Program Code: ED97409C

### From Sheep to Clothes

November 9; 10:30 a.m.-1:30 p.m.  
\$25; Program Code: ED97414C

### Animal Puppets

November 16; 10:30 a.m.-12:00 p.m.  
\$20; Program Code: ED97415C

### Drawing Fossils

November 16; 10:30 a.m.-1:30 p.m.  
\$25; Program Code: ED97416C

### How We Hear and How We See

November 23; 10:30 a.m.-1:30 p.m.  
\$25; Program Code: ED97417C

### Evi-Dents

November 23; 10:30 a.m.-1:30 p.m.  
\$25; Program Code: ED97418C

*You can make reservations for these programs by calling Central Reservations at (212) 769-5200 or by filling out the coupon on this page, under the heading Education Department. Please note that Members' prices also apply to students and senior citizens but that there is no discount for workshops, walking tours, or field trips.*

## Central Reservations Coupon

Call (212) 769-5200 weekdays 8:00 a.m. to 6:00 p.m., and Saturday 10:00 a.m. to 6:00 p.m. Have your credit card and membership category ready when you call. Or fill out this coupon and mail it to Central Reservations, American Museum of Natural History, Central Park W. at 79th Street, N. Y., NY 10024-5192. Make checks payable to the American Museum of Natural History.

Program Title and Code	Number of Reservations	Amount Enclosed
<b>Membership Programs</b>		
_____	_____	\$ _____
_____	_____	\$ _____
_____	_____	\$ _____
<b>Education Department</b>		
_____	_____	\$ _____
_____	_____	\$ _____
<b>Hayden Planetarium</b>		
_____	_____	\$ _____
<b>Total Amount Enclosed:</b>		\$ _____

Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
Membership Category: \_\_\_\_\_  
Phone (day): \_\_\_\_\_ (eve.): \_\_\_\_\_  
Charge my: Amer. Ex. \_\_\_\_\_ Visa \_\_\_\_\_ Master Card \_\_\_\_\_  
Card Number: \_\_\_\_\_  
Signature: \_\_\_\_\_ Expiration Date: \_\_\_\_\_

## Provide For Your Future. . .



## . . . And Enrich The Lives Of Others.

Through a gift to the American Museum of Natural History that provides lifetime income, you promote preservation and extend understanding of the natural world for generations to come and, at the same time, provide for your own retirement. If you are age 55 or older, with a gift of \$5,000 or more you can:

- receive income for life, for yourself and/or a loved one;
- enjoy an immediate income tax deduction;
- minimize or eliminate capital gains tax when low-yield, highly appreciated stocks are sold to re-invest for higher income;
- reduce the cost — through the combined benefits of an income stream and an immediate income tax deduction — of a gift important to the Museum's future.

For more information, please call toll-free 1 (800) 453-5734 or complete and return this confidential reply form to Jane C. Palmer, Director of Planned Giving, Office of Development, American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192.

Please send me information on gifts that provide lifetime income, tax savings, and other benefits, while enriching the lives of others:

Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
Phone (home): \_\_\_\_\_ (office): \_\_\_\_\_

Tax and other financial benefits may depend on age.

My (our) age(s): \_\_\_\_\_

Your reply is confidential and implies no obligation. 11/97



Museum Notes

**HOURS**

**EXHIBITION HALLS**  
Mon.-Thurs. & Sun 10:00 a.m.-5:45 p.m.  
Fri. & Sat. 10:00 a.m.-8:45 p.m.

**THE MUSEUM SHOP**  
Mon.-Thurs. & Sun. 10:00 a.m.-5:45 p.m.  
Fri. & Sat. 10:00 a.m.-7:45 p.m.

**THE JUNIOR SHOP**  
Mon.-Fri. 10:00 a.m.-4:45 p.m.  
Sat. & Sun. 10:00 a.m.-5:45 p.m.

**THE MUSEUM LIBRARY**  
Tues.-Fri. 11:00 a.m.-4:00 p.m.

**THE NATURAL SCIENCE CENTER**  
There are many wild places in the New York City area, and the Center features these habitats' plants and live animals. Closed holidays.

Tues.-Fri 2:00-4:30 p.m.  
Sat. & Sun 1:00-4:30 p.m.  
Thursday storytelling 3:00 p.m.

**MUSEUM DINING**

**DINER SAURUS FAST SERVICE EATERY**  
Daily 11:00 a.m.-4:45 p.m.

**GARDEN CAFE**  
Reservations: (212) 769-5865  
Lunch: Mon.-Fri. 11:30 a.m.-3:30 p.m.  
Dinner: Fri. & Sat. 5:00-7:30 p.m.  
Lunch: Sat. & Sun. 11:00 a.m.-4:00 p.m.

**SNACK CARTS**  
Sat. & Sun. 11:00 a.m.-4:00 p.m.

List of Exhibits

EXHIBITS	LOCATION	ON VIEW UNTIL
<i>In the Kingdom of Imerina: Early Photographs and New Textiles from Madagascar</i>	Akeley Gallery, 2nd floor	1/4/98
<i>The Nature of Diamonds</i>	Gallery 3, 3rd floor	4/26/98
<i>Drawing Shadows to Stone: Photographing North Pacific Peoples, 1897-1902</i> (opening November 14)	Gallery 77, 1st floor	3/1/98

**ENTRANCES**

During Museum hours visitors can enter the building through the 77th Street entrance, the first- and second-floor Roosevelt Memorial Hall entrances (79th Street and Central Park West), or through the subway entrance. Visitors attending programs after hours can enter the building through the security entrance at 79th Street and Central Park West, down the driveway. Tickets can be picked up or purchased at the ticket desk just inside the entry.

**PHONE NUMBERS**

Museum information (212) 769-5100  
Planetarium information (212) 769-5900  
Education Department (212) 769-5310  
Discovery Tours (212) 769-5700  
toll-free outside NY State: (800) 462-8687  
IMAX® (212) 769-5034  
Development (212) 769-5151

Communications (212) 769-5800  
Volunteer Office (212) 769-5566  
Museum Shop (212) 769-5150  
Library Services (212) 769-5400  
Natural History magazine (212) 769-5500  
Membership Office (212) 769-5606  
Members' Birthday Parties (212) 769-5542  
Planned Giving Office (212) 769-5119  
toll-free outside NY State: (800) 453-5734  
Central Reservations (212) 769-5200  
World Wide Web Site <http://www.amnh.org>

**PARKING**

The visitor parking lot is temporarily closed. For public transportation and local parking information, call (212) 769-5606. The Museum is well served by public transportation.

Hayden Happenings

For tickets, call Central Reservations at (212) 769-5200 or use the coupon on page 6. These Monday-evening lectures begin at 7:30 p.m. and take place in the Miriam and Ira D. Wallach Orientation Center on the fourth floor. Please note that Members' prices also apply to students and senior citizens.

**Distinguished Authors in Astrophysics**

*Beyond Star Trek: The Physics of Science Fiction*

November 17  
\$16; \$14.50 for Members  
Program Code: HP106L

In this lecture program, internationally known astrophysicist and bestselling author Lawrence Krauss guides his audience toward a new dimension in their view of science fiction and their appreciation of the universe. The author of the newly released *Beyond Star Trek*, Krauss tackles subjects ranging from time travel and warp speed to UFOs, ESP, interstellar travel, and "the end of time."

Slide and video projections, props, and Krauss's unique presentation style help guide participants through the worlds of *Star Trek*, *X-Files*, *Star Wars*, *Independence Day* — and, of course, our own universe.

A seasoned lecturer and author experienced in communicating his joy of physics to the general public, Krauss is Ambrose Swasey Professor of Physics and chairman of the Physics Department at Case Western Reserve University. His new book will be available for purchase and signing at the conclusion of the lecture.

**Frontiers in Astrophysics**

*Gravitational Lenses as Cosmological Telescopes*

November 10  
\$8; \$7 for Members  
Program Code: HP102-L

Astrophysicist Wesley N. Colley, from the Harvard-Smithsonian Center for Astrophysics, presents a program based on recent Hubble Space Telescope observations of a particular gravitational lens system — the gravity from a very massive cluster of galaxies that bends the rays of light emanating from a background galaxy near the edge of the universe. Astrophysicists have used the gravitational power of this massive galaxy cluster as a telescope, for which the Hubble is the eyepiece.

**Hubble Space Telescope Observations of Massive Galactic Black Holes**

December 1  
\$8; \$7 for Members  
Program Code: HP103L

Roeland P. van der Marel, from the Space Telescope Science Institute in Baltimore, presents a lecture based on some of the most important discoveries that have been made in detecting the presence of massive black holes.

Enjoy our glittering  
DIAMOND BRUNCH  
and visit  
The Nature of Diamonds  
Exhibition

Sundays:  
November 16 and 30 • December 7 • January 11 and 18

Museum members \$22.95  
Non-members \$29.95  
includes our lavish DIAMOND BRUNCH,  
a guided tour of The Nature of Diamonds  
Exhibition,  
tax and gratuities

For pre-paid reservations,  
please call (212) 769 5200





Sun

Mon

Tues

Wed

Thurs

Fri

Sat

1

*The Nature of Diamonds*  
Exhibition opens in Gallery 3  
Native American Celebrations  
Leonhardt People Center

8



5

7:45 p.m.  
Amateur Astronomers  
Association  
"Did Comets Kill the  
Dinosaurs?" Speaker,  
Michael Ranipino, NYU  
Leonhardt People Center  
Free

6

Margaret Mead Film and  
Video Festival  
Opening Night  
Main Auditorium

7

7:00 p.m.  
*The Search and Discovery of  
Our Earliest Ancestors*  
Speaker, Meave Leakey  
Page 2

4

Election Day

12

11

Veterans' Day  
8:00 a.m.  
Fossils and the  
Delaware Water Gap  
Guided field trip conducted by  
Sidney Horenstein. Page 2

13

11:00 a.m. to 2:00 p.m.  
Three Generations  
of Tlingit Weavers  
Craft demonstrations  
Hall of Northwest Coast Indians  
Page 5. Free

14

*Drawing Shadows to Stone:  
Photographing North Pacific  
Peoples, 1897-1902*  
Exhibition opens in Gallery 77  
6:30 p.m.  
Anthropology of War  
Guided hall tour with Robert  
Campante

15

1:00 p.m.  
Creating Totemic Clan-Crest Columns  
Members' sculpture workshop,  
conducted by Pamela Popson. Page 5  
Native American Celebrations  
Greater North Pacific Film Festival  
Page 4

9



10

7:30 p.m.  
Frontiers in Astrophysics  
"Gravitational Lenses as  
Cosmological Telescopes"  
Speaker, Wes Colley  
Page 7

16

2:00 p.m.  
New York Paleontological Society  
Room 319. Free  
Native American Celebrations  
Greater North Pacific Film Festival  
Page 4

17

7:30 p.m.  
Distinguished Authors  
in Astrophysics  
"Beyond Star Trek:  
The Physics of Science Fiction."  
Speaker, Lawrence Krauss  
Page 7

18

7:00 p.m.  
Lori Grinker: Middle East  
Journals, Continued  
Slide-illustrated lecture with  
photojournalist Lori Grinker.  
Page 2

19

20

7:00 p.m.  
Drawing Shadows to Stone  
Members' curator-led tour of  
the exhibition in Gallery 77.  
Page 5



22

10:00 a.m. or 2:00 p.m.  
How It Was with Dooms  
Children's writing workshop, with  
Carol Cawthra Hopcraft. Page 2  
Native American Celebrations  
Leonhardt People Center

23

Native American Celebrations  
Leonhardt People Center

24

25

7:30 p.m.  
Linnaean Society of New York  
Leonhardt People Center  
Free

27

Thanksgiving Day

28

6:30 p.m.  
Unmentionable Meals  
Guided hall tour with Robert  
Campante

29

30

The Discovery Room is open.  
*Museum Magic* theme for the month:  
"Feasting"  
Leonhardt People Center. Free

Carry the Card!

Card-carrying Members can take advantage  
of our new express line on weekends if they  
enter at the second-floor Rotunda on Central  
Park West. Express line tickets are for  
Museum admission only. So carry the card!

Printed on recycled paper

# November 1997 American Museum of Natural History



# ROTUNDA

For Family/Dual and Higher Members of the American Museum of Natural History

Vol. 22, No. 11 December 1997

## The Case of the Forgotten Crate

### An Unlikely Expedition in the Museum Courtyards



Fragmentary remains of Puerto Rico's extinct hutia

On a cloudy day last August, a coffin-size, rough wooden crate, approximately seven feet long and three feet wide, marked only with the hand-lettered label "H.J.S. #1" and the address of the Museum, was wheeled out of a storeroom inside the American Museum of Natural History. Members of the Mammalogy and Anthropology departments and a group of volunteers, all armed with screen sifters, boxes, and labels, stood by expectantly as the crate was placed gently on the ground near a giant dumpster in the institution's labyrinthine inner courtyards. Anibal Rodriguez, senior technician in the

Rodriguez' children, Jason and Leanna; and Museum staffers Carl Mehling, Fiona Brady, and John Fulton. There was a palpable sense of excitement in the air: opening and sifting the contents of this crate would finally bring to a close a Museum expedition to the island of Puerto Rico that took place in 1915. For eighty-two years this crate remained — unopened, undocumented, and forgotten — in a corner

no one had ventured so far to make use of it.

But this year MacPhee and Flemming were hot on the trail of mammal remains that would help them trace the massive extinctions of endemic species in the West Indian islands. They were particularly interested in remains of an extinct rodent, the Puerto Rican hutia (*Isolobodon portoricensis*). They knew that the famous

he thought MacPhee and Flemming might be interested in Spinden's crate, its contents still a mystery.

Rodriguez had once pulled a nail from one of its planks and peeked inside, so he knew it was filled with dirt that was permeated with bones and shells — probably a midden, an accumulation of refuse around a dwelling place. He himself was interested to see if it might contain any evidence to help in his own field of inquiry — the diet and cooking techniques of the Amerindian tribes that populated Puerto Rico beginning as far back as 5,000 years ago. Together, these members of the Mammalogy and Anthropology departments conjectured that the contents of the crate might indeed yield something of interest for both parties, and the project for this Museum-yard expedition was begun.

A few weeks later, as the three planks covering the crate were removed, what the group found inside was clearly an Indian shell midden, probably from somewhere on the extreme southwest coast of Puerto Rico, the area where Spinden had been working. By early afternoon, the patient work of sifting had begun. Gently shaking the midden material over wire mesh and carefully examining each specimen of bone, shell, or pottery shard to decide what should be kept for further study, the "field workers" made a curious and incongruous tableau in the construction-littered

(Continued on page 3)



Labor of love: the group begins sorting the contents of the crate.

of an anthropology storeroom. The group hoped that inside it might lie the clues to some of the scientific problems they were now studying.

No one is quite sure why the crate was forgotten. It was shipped back from the Caribbean by Herbert J. Spinden, an archeologist hired by the Museum and the New York Academy

anthropologist Franz Boas had sent mammal remains to the Museum's Mammalogy Department in 1915, when he worked briefly in Puerto Rico, and they asked Rodriguez if he knew anything about the location of additional rodent bones. After sorting through Boas' collections — unsuccessfully — Rodriguez had another idea:

Opening and sifting the contents of this crate would finally bring to a close a Museum expedition to the island of Puerto Rico that took place in 1915.

Anthropology Department, together with Mammalogy Department curator Ross MacPhee and senior scientific assistant Clare Flemming, carefully removed the crate's nails with a long iron tool. Standing by to help with the sifting were volunteers Bobby Liberman and his daughter Kristin Fisher; MacPhee's daughter, Briony;

of Sciences to excavate several sites in Puerto Rico in 1915. He brought back large collections of artifacts, now housed mostly in the Anthropology Department. Although it had apparently been on Museum property since that time, the crate was not documented anywhere. And although Rodriguez was aware of its existence,



### Members' Family Holiday Party

DATE:  
Sunday, December 14

TIME:  
3:00–5:00 p.m.

PLACE:  
Hall of Ocean Life

(see page 2 for more details)



OrigamiUSA Presents

## Introduction to Origami

Two Sessions:

Sunday, January 25

Saturday, March 28

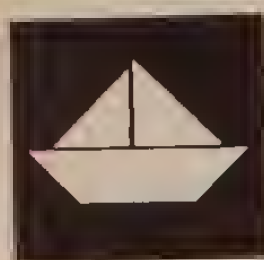
2:00-4:30 p.m.

\$25/per session

This one-day class is designed to introduce the amazing art of paper folding to those with little or no experience. You will learn terminology and basic folds plus several delightful models. The class is taught by

OrigamiUSA, a not-for-profit arts organization headquartered here in the Museum. It is geared for adults, but children ages seven to twelve are welcome when accompanied by an adult chaperone. All

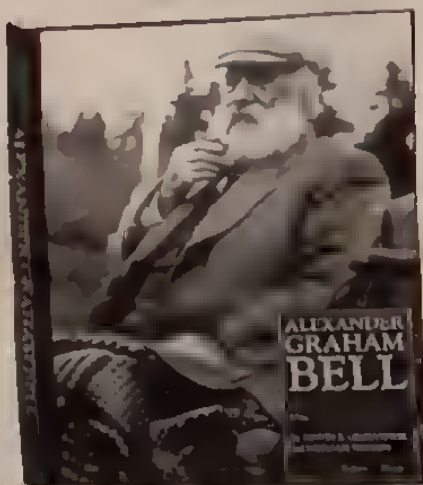
materials are included in the program fee. To register, call OrigamiUSA at (212) 769-5635 from 11:00 a.m. to 5:00 p.m. weekdays and ask about the Introduction to Origami class.



## Second Notice

### The Life and Times of the Man Who Invented the Telephone

**Tuesday, December 2**  
Discover the myriad achievements of the quintessential American thinker and inventor, Alexander Graham Bell. This slide-illustrated lecture is presented by the co-author of a new biography of Bell, Edwin S. Grosvenor.  
Time: 7:00 p.m.  
Kaufmann Theater  
\$10; \$8 for Members  
Program Code: MM1-12



### Make Your Own Gingerbread House

**Friday, Saturday, and Sunday, December 19-21**  
Build a house of sweets and create memories for years to come. Join June Myles for this annual Members' workshop.  
Time: choice of sessions  
10:00 a.m.-12:00 p.m., or  
1:00-3:00 p.m.  
\$35 per child/adult couple  
Limited to Family/Dual and Higher Members  
Program codes:  
December 19 — MM3A-12  
December 20 — MM3B-12  
December 21 — MM3C-12



David Grover and The Big Bear Band

### A Dickens of a Scrooge

**Friday, December 12**  
Enjoy a re-creation of the character Scrooge with Museum docent Robert Campanile, who invites three ghosts to join him and remind us of why we celebrate and why we need one another.  
Time: 6:30 p.m.  
Leonhardt People Center  
Free; tickets required  
Program Code: MM4-12

### If the Sun Were to Explode Tomorrow, What Would Happen to Earth?

**Thursday, December 18**  
Find out the answers to many questions asked by the public about everything from cosmic catastrophes to quasars, black holes, and blue moons. Your guide is the director of the Hayden Planetarium, Neil Tyson.  
Time: 7:00 p.m.  
Kaufmann Theater  
Free

From the Volunteer Department

## Wanted: Fossil Explainers

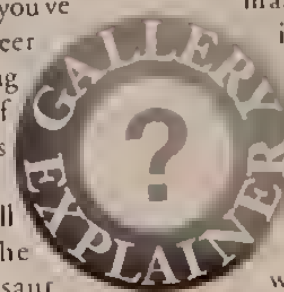
Have you ever wanted to find out all about fossils and vertebrate paleontology and tell other people what you've learned? The Volunteer Department is planning to train a new group of Fossil Explainers beginning in January.

Fossil Explainers tell visitors about the exhibits in the dinosaur and fossil mammal halls on the fourth floor. They are required to attend twelve weekly training sessions — held from January to April — and to successfully complete both written and oral examinations.

No prior knowledge of the topic is required, only an interest in paleontology, and in mastering a subject independently.

Once training is completed, each Explainer is asked to make a two-year commitment to work at the Museum in a regular two-hour time slot.

If you are interested in becoming a Fossil Explainer, please telephone the Volunteer Office at (212) 769-5566 and ask for an application.



## ROTUNDA

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Michel DeMatteis — Editor  
Rosemary Caulk — Associate Director of Membership  
John Mix — Assistant Director of Membership  
Rita Campon — Copy Editor

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Printed by Waldon Press, Inc., New York



# Lizard Island: Cuba's Delightful Tree-dwelling Lizards

Thursday, January 8  
7:00 p.m.  
Kaufmann Theater  
\$10; \$8 for Members  
Program Code: MM1-01



Alfonso Silva Lee

Join Alfonso Silva Lee, a Cuban biologist, author, and photographer and an expert on the natural life of his native island, for a lecture program focusing on Cuba's abundant and delightful species of lizards.

Cuba holds a larger share of lizards than it should. Much larger. Eighty-two species are packed on the island, and, of Cuba's total lizard population, all but nine are endemic, exclusive of the archipelago: Cuba is "Lizard Island," without a doubt. Day and night, lizards are part of every Cuban landscape. In any place around the

country's diverse environments, from the desert-like southern coast of Guantánamo Province to the wettest swamps and mountain forests, it is virtually impossible to scrutinize a tree or a bush without discovering a lizard in a matter of seconds.

Silva Lee, a graduate of Moscow State University, began his career diving the seas of Cuba as an ichthyologist. He has spent some twenty-five years observing, writing about, and photographing the life forms that abound in the greater Antilles. He is the author of seven books, including *Natural Cuba/Cuba Natural* (Pangaea, 1996), and over fifty scientific and magazine articles on Caribbean natural history. He is at work on a children's book focusing on nature in Puerto Rico, *Coqui y Compañía* (*Coqui and His Crowd*), to be published this spring by Pangaea.

Silva Lee accompanies his talk with the presentation of over forty slides, all taken in the wild, covering a great many lizard species from different parts of the island and from some of the offshore keys. A question-and-answer session will follow, and copies of Silva Lee's book *Natural Cuba* will be available for purchase and signing at the conclusion of the lecture.

(Continued from page 1)

## The Case of the Forgotten Crate

courtyard. Unwanted debris was tossed into the nearby dumpster, and by late evening the job was done.

What had been discovered during this unusual search? The crate contained the remains of a vast array of different species of shellfish and of an equally large number of fish species. Cultural remains included many potsherds, some clay shards, charcoal, two pieces of plant material (probably from squash stems), and a small piece of a braided, plant-fiber rope. Parts of a human cranium — that of a child — were also unearthed. Bones of manatees, sea turtles, lizards, and birds were recovered, in addition to the bones of one extinct land mammal — the Puerto Rican hutia.

For Rodriguez, who was looking for evidence of how the natives cooked their food (he is especially interested in the origin of barbecue, from a Taino word meaning "framework of sticks"), the clay shards represented what may have been parts of a griddle used on top of the coals to make a kind of cassava bread. Very few charred bones were found in the midden. Rodriguez noted, and the potsherds and plant-fiber rope specimen, while intriguing, require more technical and expert

evaluation, as well as more positive dating.

MacPhee and Flemming, on the other hand, were very satisfied with the many hutia remains, which included limbs, skulls, vertebrae, and mandibles, as well as isolated teeth. "We're chronicling recent mammalian extinctions globally," Flemming said. "The West Indies are the hardest-hit area, and within that area, rodents were the hardest-hit taxon." She explains that the amount of known material, or the *hypodigm*, of any given species is fundamental to the scientific investigation of species and extinctions. Since *Isolobodon* is extinct, the finds from the mystery crate represent a significant contribution to its hypodigm.

"Roughly 73 percent of all confirmable mammal extinctions at the species level in the past 500 years have occurred on islands," MacPhee explained, "and 40 percent of total losses occurred in the Caribbean alone." The precise cause of these extinctions — which in the case of Puerto Rico resulted in the loss of all native mammals except bats — is still debated, as is the time frame during which they occurred, which is why this research is of special interest.

With a small research grant, the scientists would be able to more accurately date the bones and other specimens, like the plant-fiber rope, found in the midden. *Isolobodon* material collected by Boas has been radiocarbon-dated to 960 years before the present, MacPhee notes. The material in the mystery crate might yield some of its most interesting data, he adds, if it showed the midden to be either much younger or much older than others of its kind found thus far in Puerto Rico.



Sorting bones and artifacts from debris



David Noon and the Manhattan School of Music percussion ensemble at a performance in the Bruce Museum in Greenwich, Connecticut.

## Members' Special Concert

# Fleshing the Bones: Music Awakening Prehistory

Tuesday, January 27  
7:00 p.m.  
Rotunda, 2nd floor  
\$12; \$10 for Members  
Program Code: MM2-01

Join us for an extraordinary musical event when the Manhattan School of Music comes to the Museum with a concert performed in the unique setting of the Theodore Roosevelt Rotunda.

With the reconstructed *Barosaurus* and *Allosaurus* fossil skeletons poised in

their famous "encounter" as a dramatic backdrop, Manhattan School of Music faculty member and flutist Linda Chesis opens the concert program with a performance of an ancient Greek fragment — the oldest known extant manuscript of music — followed by a performance of a solo flute piece by Debussy. The program concludes with the New York premiere of David Noon's *Symphonia Apocalyptica*, for twelve percussionists from the Manhattan School of Music percussion ensemble, conducted by Scott Dunn.

Noon, chairman of Manhattan School of Music's Composition and Music History Departments, is the program host. He provides a lively commentary before each work, inviting the audience to enter a world of imagination, to open their minds and dream of a past made present.

"There's nothing more human than imagining," says Noon. "Of all creation, we are the great dreamers." Noon affirms that, in composing his symphony, he dreamt of "vanished yet present civilization, the cosmic mysteries. Some of the instruments that I decided to use recall the imagined music of prehistory: stones, one hitting the other, log drums, cricket callers, lion's roar."

Noon earned advanced degrees in music composition at Yale University and was a Fulbright Fellow in composition at the Music Conservatory in Warsaw, Poland, in 1972-73.

He has served as Composer Artist-in-Residence at New York's Episcopal Cathedral of St. John the Divine since 1996. The concert is presented in collaboration with the *Music Reaches* initiative, part of the school's community and educational ArtReach program, Music in Action.



# Hayden Happenings

## Courses for Stargazers

The Hayden Planetarium continues to offer a rich and varied array of courses for participants at all levels of learning. Many of the courses being offered for the upcoming 1998 season occur on a regular basis, and are listed below only by title, date, and program code. Others are described in detail. Members can find full course descriptions on the Museum's World Wide Web site <http://www.amnh.org>. Call Central Reservations at (212) 769-5200 or use the coupon on page 6 to register for these courses or to reserve a ticket for one of the lectures listed below.

### Astronomy

#### Introduction to Astronomy

Eight weekly sessions  
Beginning Thursday, January 8  
Instructor: Francine Jackson  
**Program Code: HP2**  
Or eight weekly sessions  
Beginning Monday, March 23  
Instructor: Craig Small  
**Program Code: HP3**  
6:30-8:40 p.m.  
\$95; \$85.50 for Members

#### How to Use a Telescope

Eight Mondays  
Beginning March 23  
6:30-8:40 p.m.  
\$95; \$85.50 for Members  
Instructor: Samuel Storch  
**Program Code: HP5**

#### Town and Country Star Gazing

Three Thursdays  
Beginning January 15  
6:30-8:10 p.m.  
\$35; \$31.50 for Members  
Locate and identify the brightest stars, whether you are observing from the center of a large city or under country skies. Interesting star clusters, nebulae, and galaxies are described and illustrated. Myths and legends about the sky

are related. The use of binoculars, cameras, and telescopes is discussed.  
Instructor: Steven Beyer  
**Program Code: HP6**

#### The Hubble Space Telescope and Beyond

Six Wednesdays  
Beginning January 7  
6:30-8:40 p.m.; \$70; \$63 for Members  
Instructor: William Dorsey  
**Program Code: HP9**

#### The Life Cycles of Stars

Six Wednesdays  
Beginning March 25  
6:30-8:40 p.m.; \$70; \$63 for Members  
Instructor: Sune Engelbrektson  
**Program Code: HP19**

#### Adventures in Astronomy

Seven Saturdays  
Beginning March 28  
10:00 a.m.-12:00 p.m.  
\$85; \$76.50 for Members  
Instructor: Craig Small  
**Program Code: HP14**

#### Seminar in Cosmology

Eight Thursdays  
Beginning January 8  
6:30-8:40 p.m.  
\$95; \$85.50 for Members  
Instructor: William Dorsey  
**Program Code: HP16**

#### Life Beyond the Earth:

**The Search for Life in the Cosmos**  
Eight Mondays  
Beginning January 5  
6:30-8:40 p.m.  
\$95; \$85.50 for Members  
Instructor: Samuel Storch  
**Program Code: HP17**

#### From Copernicus to Einstein

Seven Wednesdays  
Beginning March 25

6:30-8:40 p.m.  
\$85; \$76.50 for Members  
Instructor: William Dorsey  
**Program Code: HP18**

#### The New Solar System

Eight Thursdays  
Beginning March 26  
6:30-8:40 p.m.  
\$95; \$85.50 for Members  
Instructor: Francine Jackson  
**Program Code: HP19**

### Ethnoastronomy

#### An Anthropological View of the Sky

Six Tuesdays  
Beginning February 3  
6:30-8:40 p.m.  
\$70; \$63 for Members  
Discover the role of astronomy in different cultures and examine the various symbolic aspects of the heavens. Cosmologies found throughout the world and the symbolism associated with them will be discussed, as will religion (including mythology) and its relationship to the skies.  
Instructor: John Beatty  
**Program Code: HP22**

#### Archeoastronomy

Six Tuesdays  
Beginning March 24  
6:30-8:40 p.m.  
\$70; \$63 for Members  
Instructor: John Beatty  
**Program Code: HP23**

### Meteorology

#### Weather and Climate

Eight Thursdays  
Beginning March 26  
6:30-8:40 p.m.  
\$95; \$85.50 for Members  
Instructor: Barry Grossman  
**Program Code: HP25**

### Weather Analysis and Prediction

Six Mondays  
Beginning January 5  
6:30-8:40 p.m.  
\$70; \$63 for Members  
**Program Code: HP26**

### Aviation

#### Ground School for Private, Commercial, and Instrument Pilots

Fifteen Tuesdays and Thursdays  
Beginning March 24  
6:30-9:00 p.m.  
Instructor: Ted Cone  
\$200; \$180 for Members  
**Program Code: HP29**

### Navigation

#### Navigation in Coastal Waters

Eight weekly sessions  
Beginning Tuesday, January 6  
**Program Code: HP33**  
Or eight weekly sessions  
Beginning Tuesday, March 24  
**Program Code: HP34**  
6:30-9:00 p.m.  
\$110; \$99 for Members  
Instructor: Gregory Smith

#### Introduction to Celestial Navigation

Ten weekly sessions  
Beginning Monday, January 5  
6:30-8:40 p.m.  
\$110; \$99 for Members  
Instructor: Gregory Smith  
**Program Code: HP36**

#### Advanced Celestial Navigation

Eight Wednesdays  
Beginning March 25  
6:30-8:40 p.m.  
Instructor: Gregory Smith  
\$95; \$85.50 for Members  
**Program Code: HP37**

## Lecture Series

Lecture programs begin at 7:30 p.m. and take place in the Miriam and Ira D. Wallach Orientation Center, on the fourth floor. Please note that Members' prices also apply to students and senior citizens.

### Distinguished Authors in Astronomy

#### What if the Moon Didn't Exist?

Monday, December 8  
\$8; \$7 for Members  
**Program Code: HP107L**

The ability of humans to explore the consequences of their desires before acting on them distinguishes us from all other animal species. Underlying this activity is our ability to ask "what if" questions.

In his book *What if the Moon Didn't Exist? Voyages to Earths that Might*

*Have Been*, Neil F. Comins, a physics and astronomy professor at the University of Maine, Orono, constructs ten alternate versions of Earth that would result if our planet's astronomical environment were slightly different from what it really is. These worlds are surprisingly unlike and considerably less hospitable than the Earth we know and love.

Comins' talk explores the differences that would be found on an Earth that had been forever moonless. He explains how the moon formed, how it affects the Earth, what the Earth would be like without it, and what would be



different if the moon were orbiting the Earth in the opposite direction. The lecture concludes with a question-and-answer session in which Comins accepts other "what if" questions from the audience.

A fellow of the Royal Astronomical Society and a regular contributor to *Astronomy* magazine, Comins has been doing research over the past five years

to identify misconceptions about astronomy and the origins of these incorrect beliefs. His book has been used as the basis of a Learning Channel television show and a planetarium show produced and distributed by the Morehead Planetarium at the University of North Carolina. Copies will be available for purchase and signing at the conclusion of the lecture.

### Frontiers in Astrophysics

#### Let There Be Light — The Birth of Stars

Monday, January 26  
\$8; \$7 for Members  
**Program Code: HP104L**

Speaker, Elizabeth Lada, assistant professor, University of Florida, Gainesville



# Department of Education Programs

## Workshops, Walking Tours, and Field Trips

### How to Mine for Diamonds

Saturday, December 13

Three sessions:

1:00, 2:00, or 3:00 p.m.

Kaufmann Theater; \$8

**Program Code: ED97328X**

Led by prospector and author Henry F. Kennedy, this hands-on workshop is preceded by a brief, slide-illustrated talk. Participants learn the techniques used in diamond prospecting and mining.

### Geology on Foot

with Sidney Horenstein

### Manhattan's Southern Tip

Saturday, January 24

A series of three walking trips

10:00 a.m., 1:00 p.m.,

and 3:00 p.m.

\$10 each or \$25 for the series

### Battery Park

**Program Code: ED97334X**

Explore the southern tip of Manhattan from Battery Park to Bowling Green and Broad Street, following the original shoreline of the island. The features of Dutch New Amsterdam will be related to contemporary New York.

### Broadway

**Program Code: ED97335X**

This trip takes us up Broadway to the Woolworth Building. History, building materials, and the importance of Broadway are the trip's themes.

### City Hall and Foley Square

**Program Code: ED97336X**

In 1800, City Hall was at the northern edge of the city. Just

to the north was a large lake — the site of the first water supply system for New York City — which became Foley Square. The group will view the recently established African Burial Site memorial.

## Free Programs

### The Jesup Expedition and Northwest Coast Art and Representation

Two Fridays

December 5 and 12

7:00–8:30 p.m.

In this special program, guest curators Thomas Ross Miller and Barbara Mathé explore two of the exhibition's major themes: sound and image.

Miller explains modern restoration techniques used on the fragile wax cylinders and continuity and change in song styles from the area of the expedition.

Mathé presents many of the rarely seen photographs and artifacts brought back to the Museum by the Jesup team.

### Dreaming of Diamonds

Tuesday, December 9

7:00–8:30 p.m.

In a slide-illustrated lecture, prospector and author Henry F. Kennedy discusses mining for diamonds and gemstones in Brazil, where the techniques employed by solitary prospectors are reminiscent of those used during the California gold rush of 1849.

### Tribute to

Sir Laurens van der Post

Wednesday, December 10

7:00–9:30 p.m.

This free public event honors

the memory of Sir Laurens van der Post, a South African writer, filmmaker, cultural anthropologist, and statesman, one year after his death.

The program includes presentations by speakers from South Africa, Switzerland, and England, and concludes with the screening of the award-winning film biography, *Hasten Slowly*, produced by Mickey Lemle.

### Reinventing Tradition:

The Revival of

Malagasy Silk Weaving

Tuesday, December 16

7:00–8:00 p.m.

Simon Peers, curator of the new Akeley Gallery exhibition *In the Kingdom of Imerina: Early Photographs and New Textiles from Madagascar*, gives a slide-illustrated talk based on Malagasy silk weaving.

## Multicultural Programs

### Celebrate India:

Rebirth of a Nation

Saturday, December 6

12:00–8:30 p.m.

Sunday, December 7

1:00–5:00 p.m.

In celebration of India's fifty years of independence, this year's festival highlights cultural, spiritual, and educational programs about modern India. It includes performances by dancer Sadhana Paranj, performing Kuchipudi dances of Andhra Pradesh, South India; children's workshops in crafts and music; storytelling and films; and discussions on current issues affecting the Indian community, such as intergenerational family differences and reverse immigration. Indian foods will be sold.

### Kwanzaa Celebration

Sunday, December 28

12:00–5:00 p.m.

Hall of Ocean Life

Kwanzaa is a unique African-American holiday celebrating the richness of centuries of African culture that continue to exist in the diaspora.

The Museum's annual celebration features the re-creation of a traditional African village market, with performances, craft demonstrations, and the sale of Afrocentric items. For more information, call (212) 769-5315.

You can make reservations for these programs by calling Central Reservations at (212) 769-5200 or by filling out the coupon on page 6, under the heading Education Department.

## Members' Museum Hall Tours

Museum docent Robert Campanile offers one or more unique hall tours of the Museum each month, designed around scientific, historical, literary, and seasonal themes. These tours are free and open only to Family/Dual and Higher Members, but because of popular demand, tickets are required and limited to two per person. Tickets can be reserved at the beginning of each month by calling Central Reservations at (212) 769-5200.

## Let the Games Begin

Friday, January 30

6:30 p.m.

**Program Code: MM3-01**

People will gather from all over the world this year to test their strength, speed, and endurance in the Winter Olympics at Nagano, Japan, and for the occasion, Bob "Sled" Campanile will take tour participants through his

"Nature's Olympics" and introduce them to the real gold-medal winners.

Come and witness the fastest, strongest, and most enduring of nature's participants — and all without commercial interruption!



**Walk & Wild Side**  
American Museum of Natural History

**Exercise**  
your body

**Educate**  
your mind

**Explore**  
the world

**Escape the Cold**

Powerwalk to the farthest corners of the earth...  
at the  
American Museum of Natural History

## Walk on the Wild Side

A fitness walking program for  
Museum Members at the Contributor Level (\$100)

December 10, 1997 (Kick-Off Event — Open to non-Members)

Walk on the Wild Side on Wednesdays  
15 Sessions between December 10 and April 1

### Schedule

7:00 a.m. — Warm up

7:15 a.m. — Powerwalk (you set the pace)

8:00 a.m. — Cool Down and Coffee

### How?

To register, please call Mary Burdick at (212) 769-5588.

Register early — Space is Limited!

Use the Museum's main entrance on Central Park West at 79th Street.

Come dressed to powerwalk and set your own pace.

Coat check available.





Fourteen-karat-gold leaf pin with delicate stem of brilliant-cut white diamonds. Available exclusively at the Museum Shops: \$285; \$256.50 for Members.

## At the Museum Shops

The Main Shop boasts a new selection of indigenous crafts in a large range of prices: baskets, pottery, dolls, masks, and carvings by African, Asian, New Guinean, Mexican, South American, and Native American artisans. The craft selection is complemented by a wide assortment of gift items — from limited-edition and hand-colored prints to silk ties and scarves, many of which were created exclusively for the Museum Shops. You'll also find great gifts for the scientifically inclined, such as binoculars, microscopes, telescopes, and amber and mineral specimens.

The newly renovated Junior Shop, the Dinostore and More, and the Toy Shop on 2 all feature an assortment of fun and educational gifts for children that encourage them to learn while they play.

Wrap it up with our fabulous line of exclusive diamond gift wrap, gift bags, boxes, and tags. Gift certificates are also available, and all of our merchandise can be ordered by mail by calling

(212) 769-5150. Monday through Friday, 9:00 a.m. to 5:00 p.m. (Please note that mail orders may require up to two weeks for delivery.)

Add it up — unique selection, gifts for everyone, wrapping paper, ornaments, and a special discount day for our Members equals a great source for all your holiday shopping needs.

**You are Cordially  
Invited to the Annual  
Member Shopping Day  
December 12, 1997  
10:00 a.m. to 8:45 p.m.**

Just show your valid membership card to receive an additional 10 percent off your already discounted purchases. Good in all shops, including the Diamonds Shop\*.

*Gift certificates are available.  
Inquire in the Main Shop,  
Shop on 3, or Shop on 4.*

\*Discount on the Mimi So Collection is limited to 10%.

**T**his holiday season, put the Museum Shops on the top of your list for the best assortment of fine gift items yet assembled.

In the Diamonds Shop, you will find 14-karat-gold jewelry set with diamonds at prices ranging from \$95 to \$995 (with Members' discount, \$85.50 to \$895.50), based on the fabulous pieces now on view in Gallery 3 at *The Nature of Diamonds* exhibition. In addition to genuine diamond pieces, there are wonderful adaptations in Austrian crystal and cubic zirconia, priced from \$34 to \$69 (Members: \$30 to \$62).

## Central Reservations Coupon

Call (212) 769-5200 — weekdays 8:00 a.m. to 6:00 p.m. and Saturday, 10:00 a.m. to 6:00 p.m. Have your credit card and membership category ready when you call. Or fill out this coupon and mail it to Central Reservations, American Museum of Natural History, Central Park W. at 79th Street, N. Y., NY 10024-5192. Make checks payable to the American Museum of Natural History.

Program Title and Code	Number of Reservations	Amount Enclosed
<b>Membership Programs</b>		\$ _____
_____		\$ _____
_____		\$ _____
<b>Education Department</b>		\$ _____
_____		\$ _____
<b>Hayden Planetarium</b>		\$ _____
_____		\$ _____
<b>Total Amount Enclosed:</b>		\$ _____

Name: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
 Membership Category: \_\_\_\_\_  
 Phone (day): \_\_\_\_\_ (eve.): \_\_\_\_\_  
 Charge my: Amer. Ex. \_\_\_\_\_ Visa \_\_\_\_\_ Master Card \_\_\_\_\_  
 Card Number: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
 Signature: \_\_\_\_\_ Expiration Date: \_\_\_\_\_

## Give a Gift for All Seasons A Family/Dual Membership in the American Museum of Natural History

For only \$50 for the entire year, your special friends and relatives will receive all the privileges of membership, including Museum admission for two adults and four children, a subscription to *Natural History* magazine, and much more. As a holiday bonus, we will send AMNH's beautiful 1998 engagement calendar, *Naturalist's Diary* (a \$13.95 value, pictured below) along with a personalized holiday card to announce your thoughtful gift.

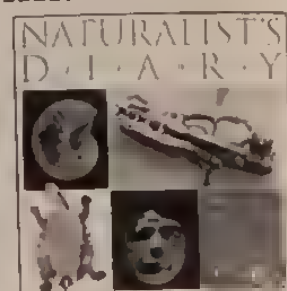
Recipient's Name \_\_\_\_\_

Street Address \_\_\_\_\_

City \_\_\_\_\_

State \_\_\_\_\_

Zip \_\_\_\_\_



Enclosed is my check for \$ \_\_\_\_\_

Please charge my: \_\_\_\_\_

Card Number \_\_\_\_\_

Signature \_\_\_\_\_

Your Name \_\_\_\_\_

Street Address \_\_\_\_\_

Apt. \_\_\_\_\_

City \_\_\_\_\_

State \_\_\_\_\_

Zip \_\_\_\_\_

*I understand that this special offer, which expires December 31, 1997, is not valid for renewing my own membership.*

Please mail this form, with your check, to: AMNH, Membership, Central Park W. & 79th St., New York, N.Y. 10024-5192.

## Members' Birthday Parties at the Museum



Not sure what to do this year for your child's birthday? Why not try a birthday party he or she won't soon forget. All you have to do is choose from one of our many stimulating party themes — and bring the cake. We'll take care of the rest.

You might choose our most popular theme, The Dinosaur Party. With one of our birthday party coordinators, the group explores the famous fourth-floor dinosaur halls and then, in the party room, they handle fossil casts, learn how fossils are formed, and make a fossil cast to take home.

Or perhaps your child and his special friends would prefer a Safari Party, in which children learn about African natural history and cultures

through special guided hall tours and hands-on experience with some of the objects from the Museum's collection. Or choose one of our other exciting themes.

All parties last two hours and include an introduction to and demonstration of artifacts, a hall tour, arts and crafts projects, games, storytelling, refreshments, and favor bags. The parties are limited to Members at the Contributor (\$100 a year) level and above. The fees cover all materials and the services of Museum staff, who customize each event to suit the individual needs of the birthday child and his or her family.

For more information, call our office at (212) 769-5013.

The Membership Office would like to thank the following young Members who celebrated their birthdays here recently: in June — Elly Brinkley, Alexander Mirman, Alissa Smith, Jordan Dickstein, Linsey Rose Agueto-Sinclair, Andrew Heinrich, Clara Suarez, and Nicky Robbins; in July or August — Sam Pratt, Cam McGinn, and Marc O'Connor; in September — Charles McLendon, Brett Lieberman, Samuel Hudis, and Mark Patykewich.



Museum Notes

HOURS

EXHIBITION HALLS  
Mon.-Thurs. & Sun. 10:00 a.m.-5:45 p.m.  
Fri. & Sat. 10:00 a.m.-8:45 p.m.

THE MUSEUM SHOP  
Mon.-Thurs. & Sun. 10:00 a.m.-5:45 p.m.  
Fri. & Sat. 10:00 a.m.-7:45 p.m.

THE JUNIOR SHOP  
Mon.-Fri. 10:00 a.m.-4:45 p.m.  
Sat. & Sun. 10:00 a.m.-5:45 p.m.

THE MUSEUM LIBRARY  
Tues.-Fri. 11:00 a.m.-4:00 p.m.

THE NATURAL SCIENCE CENTER  
There are many wild places in the New York City area, and the Center features these habitats' plants and live animals. Closed holidays.

Tues.-Fri. 2:00-4:30 p.m.  
Sat. & Sun. 1:00-4:30 p.m.  
Thursday storytelling 3:00 p.m.

MUSEUM DINING

DINER SAURUS FAST SERVICE EATERY  
Daily 11:00 a.m.-4:45 p.m.

GARDEN CAFE  
Reservations: (212) 769-5865  
Lunch: Mon.-Fri. 11:30 a.m.-3:30 p.m.  
Dinner: Fri. & Sat. 5:00-7:30 p.m.  
Lunch: Sat. & Sun. 11:00 a.m.-4:00 p.m.

List of Exhibits

EXHIBITS	LOCATION	ON VIEW UNTIL
<i>In the Kingdom of Imerina: Early Photographs and New Textiles from Madagascar</i>	Akeley Gallery, 2nd floor	1/4/98
<i>The Nature of Diamonds</i>	Gallery 3, 3rd floor	4/26/98
<i>Drawing Shadows to Stone: Photographing North Pacific Peoples, 1897-1902</i>	Gallery 77, 1st floor	3/1/98

SNACK CARTS  
Sat. & Sun. 11:00 a.m.-4:00 p.m.

ENTRANCES  
During Museum hours visitors can enter the building through the 77th Street entrance, the first- and second-floor Roosevelt Memorial Hall entrances (79th Street and Central Park West), or through the subway entrance. Visitors attending programs after hours can enter the building through the security entrance at 79th Street and Central Park West, down the driveway. Tickets can be picked up or purchased at the ticket desk just inside the entry.

PHONE NUMBERS  
Museum information (212) 769-5100  
Planetarium information (212) 769-5900  
Education Department (212) 769-5310  
Discovery Tours (212) 769-5700  
toll-free outside NY State: (800) 462-8687

IMAX® (212) 769-5034  
Development (212) 769-5151  
Communications (212) 769-5800  
Volunteer Office (212) 769-5566  
Museum Shop (212) 769-5150  
Library Services (212) 769-5400  
Natural History magazine (212) 769-5500  
Membership Office (212) 769-5606  
Members' Birthday Parties (212) 769-5013  
Planned Giving Office (212) 769-5119  
toll-free outside NY State: (800) 453-5734  
Central Reservations (212) 769-5200  
World Wide Web Site <http://www.amnh.org>

PARKING  
The visitor parking lot is temporarily closed. For public transportation and local parking information, call (212) 769-5606. The Museum is well served by public transportation.

Voyages in the Electronic Museum  
On the Web ...

The Museum's home page on the Web is rapidly expanding its horizons. In June, the Exhibition Department's software design team launched Enews on the Web, the Electronic Newspaper, sponsored by the New York Times Company Foundation. Enews can also be found inside the Museum, on the kiosks located in the first-floor Hall of Human Biology and Evolution and in the fourth-floor dinosaur halls. At home, you can find it on the Museum's home page, or dial direct: <http://www.amnh.org/eneews>. New feature stories are added weekly, and you can click on the many hypertext links available to explore your favorite natural history subjects.

From Dinosaurs in the Dunes, for example, you can link to the Eighth Gobi Expedition and learn about exciting new fossil finds. From there you can access the Discovery Channel Online and learn how — for the first time on a scientific expedition — an on-line reporting team recorded the Museum's fossil hunt in Mongolia's Gobi Desert. The team's daily dispatches, including digital photos, were posted throughout the summer, and the entire program will be archived on the site for at least a year.

From the home page (click on "Research" and then "Expeditions"), you can also now learn about the Black Smoker Expedition. Smokers — chimney-like structures discovered on the ocean floor only twenty years ago — can grow taller than a ten-story building. They spew out dark clouds of superheated water and chemicals that may help determine how life

originated. The expedition logs presented at this fascinating site follow the progress and discoveries of a September voyage sponsored jointly by the Museum and the University of Washington. The Web site also includes lesson plans and activities designed for teachers of middle school and above, as well as a Bulletin Board System (BBS) on which visitors can post questions to the scientists and discuss issues related to the expedition's research. The BBS features a "problem solving" page that allows the public to offer their insights and solutions to some of the key challenges the scientists face.

Museum Home Page:  
<http://www.amnh.org>

... And on the Air

This year the Museum is sponsoring the nationally syndicated radio program "Pulse of the Planet," a daily series of two-minute stories that weave together sounds from the natural world, the voices of people from cultures across the globe, and commentary by Museum scientists and other experts to produce a sound portrait of earth and its peoples. Topics featured are tied to the date and season of the broadcasts. Tune into topics such as the Perseid meteorite shower, the ecology of Lake Victoria, and the sunrise dance of the Apaches. "Pulse of the Planet" is created by award-winning producer Jim Metzner and can be heard in the greater New York area Monday through Friday at 9:00 p.m.

Tune to: WNYC (820AM)

Enjoy our glittering  
DIAMOND BRUNCH  
and visit  
The Nature of Diamonds  
Exhibition

Sundays:  
December 7 • January 11 and January 18

Museum members \$22.95  
Non-members \$29.95  
includes our lavish DIAMOND BRUNCH,  
a guided tour of The Nature of Diamonds  
Exhibition,  
tax and gratuities

For pre-paid reservations,  
please call (212) 769 5200







**1**  
7:30 p.m.  
**Frontiers in Astrophysics**  
"Hubble Space Telescope Observations of Massive Galactic Black Holes." Speaker, Roeland P. van der Marel; 4th-floor Orientation Center

**2**  
7:00 p.m.  
**The Life and Times of the Man Who Invented the Telephone**  
Slide-illustrated lecture on Alexander Graham Bell; speaker, Edwin S. Grosvenor; Page 2

**3**  
7:45 p.m.  
**Amateur Astronomers Association**  
"The All-Sky Variability Survey;" Speaker, Bohdan Paczynski; Kaufmann Theater; Free



**6**  
12:00 a.m.-8:30 p.m.  
**Celebrate India**  
**Rebirth of a Nation**  
The Department of Education presents a series of programs including dance performances and children's workshops in crafts and music.

**7**  
1:00-5:00 p.m.  
**Celebrate India:**  
**Rebirth of a Nation**  
The Department of Education presents a series of programs including dance performances and children's workshops in crafts and music.

**8**  
7:30 p.m.  
**Distinguished Authors in Astronomy**  
"What if the Moon Didn't Exist?" Speaker, Neil F. Comins; 4th-floor Orientation Center

**9**  
7:00 p.m.  
**Dreaming of Diamonds**  
Free lecture on mining in Brazil, given by prospector Henry F. Kennedy;  
7:30 p.m.  
**Linnean Society of New York**  
Leonhardt People Center; Free

**10**  
7:00 a.m.  
**Walk on the Wild Side**  
A fifteen-session fitness program for Contributor-level Museum Members. Kick-off event open to non-Members. Call (212) 769-5588 for more information.

**12**  
10:00 a.m.-8:45 p.m.  
**Annual Member Shopping Day**  
An additional 10% off any purchases in all Museum shops.  
6:30 p.m.  
**A Dickens of a Scrooge**  
With Robert Campanile; Page 2

**13**  
1:00, 2:00, or 3:00 p.m.  
**How to Mine for Diamonds**  
This Department of Education program is a hands-on workshop and slide-illustrated talk, led by prospector and author Henry F. Kennedy.

**14**  
2:00 p.m.  
**New York Shell Club**  
Edith C. Blum Lecture Room; Free  
3:00 p.m.  
**Members' Family Holiday Party,**  
with music by The Big Bear Band.  
Page 2

**15**  
**16**  
7:00 p.m.  
**New York Entomological Society**  
Leonhardt People Center; Free

**17**  
**18**  
7:00 p.m.  
**If the Sun Were to Explode Tomorrow, What Would Happen to Earth?**  
Neil Tyson answers questions about the universe; Page 2

**19**  
10:00 a.m. or 1:00 p.m.  
**Make Your Own Gingerbread House**  
**Gingerbread House**  
Members' child-adult workshop, conducted by June Myles; Page 2

**20**  
10:00 a.m. or 1:00 p.m.  
**Make Your Own Gingerbread House**  
Members' child-adult workshop, conducted by June Myles; Page 2

**21**  
10:30 a.m.  
**New York Turtle and Tortoise Society**  
Room 319; Free  
10:00 a.m. or 1:00 p.m.  
**Make Your Own Gingerbread House**  
Members' child-adult workshop, conducted by June Myles; Page 2

**Multicultural Programs**  
The Department of Education is presenting a series of free events and programs on the weekends of December 6-7, 13-14, and 20-21 on the theme *Folklore of the World Celebrations*. These programs take place for the most part in the Leonhardt People Center. Please call (212) 769-5651 for more information.

Arvind Garg

**24**  
**Hanukkah begins**  
**25**  
**Christmas Day**  
The Museum is closed.

**26**  
**27**  
**The Discovery Room is open.**  
Leonhardt People Center; Free

**28**  
**The Discovery Room is open.**  
Leonhardt People Center; Free

**29**  
**30**

**31**



Dancer Sadhana Paranjli, who performs during the weekend series of programs, *Celebrate India: Rebirth of a Nation*, December 6-7.

**Carry the Card!**

Card-carrying Members can take advantage of our new express line on weekends if they enter at the second-floor Rotunda on Central Park West. Express-line tickets are for Museum admission only. So carry the card!

Printed on recycled paper

**December 1997**  
**American Museum of Natural History**

**IMAX® Theater Schedule**

**Sunday to Thursday**  
*Whales*: 10:15 & 11:45 a.m. & 1:30 & 3:30 p.m.;  
*Survival Island*: 11:00 a.m. & 12:30, 2:30, & 4:30 p.m.

**Friday and Saturday**  
*Cosmic Voyage*: 10:15 a.m. & 2:30 p.m.;  
*Whales*: 11:00 a.m. & 12:30 & 4:30 p.m.;  
*Survival Island*: 11:45 a.m. & 1:30 & 3:30 p.m.

**Double Features**

**Friday and Saturday**  
*Whales and Survival Island*: 6:00 p.m.;  
*Cosmic Voyage and Survival Island*: 7:30 p.m.

**Whales**  
*Whales* brings the largest mammals that have ever lived to the giant IMAX® screen. Encounter up close a creature whose heart is the size of a small car. Follow the migration of blue, humpback, orca, and right whales, and discover how the underwater dimension of sound influences and guides their feeding, breeding, navigation, and socialization.



# ROTUNDA

For Family/Dual and Higher Members of the American Museum of Natural History

Vol. 23, No. 1 January 1998

## When the Museum Has Wheels

The big blue Winnebago that rolls around the boroughs of New York City carrying a small but dynamic exhibition on earth and planetary science is not a newcomer to the Museum. But like many of the Museum's ongoing outreach projects, the Moveable Museum is about to get an overhaul, one that will expand its potential for bringing what's inside the institution out into the city that spawned it.

The Moveable Museum has been around almost from the beginning of the American Museum of Natural History itself. Even in 1903 the Museum, then in its infancy, recognized that its resources need not be entirely confined within its walls, and it sent out a small squad of Indian motorcycles with sidecars to carry mounted specimens of animals, small-scale dioramas, and other objects from the Museum's halls and storerooms into schools and other institutions. Later, the motorcycles were replaced with a fleet of small trucks that continued what was essentially a delivery service for Museum resources. But the program was halted after World War II, when funds for this kind of outreach dried up. It was only in 1993 that the Moveable Museum was restarted.

It's been officially known since then as the Moveable Museum Partnership, and every borough of the city is represented in its seven member-institutions. It is almost entirely funded by the New York City Council, but the American Museum is responsible for the actual vehicle, its staff, and the exhibition it carries. Its partners (Bronx Museum of the Arts, Brooklyn Botanic



Day campers at the New South Bronx Police Athletic League Center celebrated the end of the summer with a special festival, and the Moveable Museum, which has been a regular visitor at the center, put in a special appearance. Above: Jeff Rodgers shows them the ropes inside the vehicle. Below: two campers get a look through the microscope.

Garden, New York Hall of Science, Queens Botanical Garden, Queens Museum of Art, and Staten Island Children's Museum) lend ideas and collaborate on the contents of the exhibits, and they also sponsor teacher workshops; two rounds a year run out of their institutions in all the five boroughs.

The vehicle is used most during the school year and mainly serves the outer boroughs, where schools cannot easily plan an extended class day in the Museum because of the long bus or

train ride into Manhattan. Jeff Rodgers and Kevin Orangers, the two educators assigned to it from the Education Department, wear many hats in the course of their duties. They are responsible not only for educational planning and implementation of programs (which include visits to schools and a host of other venues, such as nursing homes, block-association gatherings, and senior citizen centers) but also for the maintenance of the vehicle. Since they usually make their visits on their own, they also have to handle driving

the oversize Winnebago through the warren of city streets.

Rodgers explained the background to a typical Moveable initiative. When they begin an assignment, Rodgers and Orangers first meet with the teachers who requested a visit, holding a workshop on the contents of the exhibition, providing them with suggestions for classroom projects that relate to their curriculum, and giving them a tour of the mini-museum. The two educators then visit the classroom for several sessions with the students. During this phase, they may also develop special projects, using other Museum resources, on any relevant subject — anything from "explaining an estuary" to "exploring Mars." Finally, students get to visit the Winnebago and explore the exhibition.

Sometimes the teachers have a class plan to implement inside, but often the tour is informal. "There are lots of benefits to be gained from the informal approach of letting kids look and ask questions, once their interest is aroused," Rodgers says. In a follow-up phase, the students are encouraged to write or email Rodgers or Orangers with questions and ideas, and each of the inquiries is answered personally.

The plan waiting in the wings now for this highly visible Museum venture is to secure special funding that will enable it to expand its programs. The plan includes two new vehicles and all new exhibitions that can allow more schools and other institutions in New York City that cannot get to the Museum easily to have the Museum come to them.

### Fleshing the Bones: Music Awakening Prehistory

Tuesday, January 27

An unusual concert program

Time: 7:00 p.m.

Place: Rotunda, 2nd floor

Details: Page 2



David Noon and the Manhattan School of Music percussion ensemble







In 1909, the Museum sent Herbert Lang, a mammalogist, and James P. Chapin, an ornithologist, on an expedition to northeastern Belgian Congo. They returned six years later with thousands of artifacts and specimens for every department of the Museum. Above: Chapin, who was only eighteen years old when he sailed to Africa, at work painting a lizard in watercolors.

## Off the Beaten Track

### Africa: Explorations and Expeditions

On display in the Library Gallery beginning in January

Be sure not to miss this exhibition located in the gallery adjacent to the Museum's library, tucked off the corridor from the fourth-floor Vertebrate Origins Hall.

Rare books from the Library's collections, field notebooks, diaries, photographs, and sketches, as well as artifacts and specimens, illustrate more than two hundred years of European, American, and Museum expeditions and discoveries.

Curated by Roscoe Thompson, assistant director for Reference Services, the exhibit displays several rare books on river exploration. These range from the 18th-century *Travels to Discover the Source of the Nile in the Years 1768-1772*, by James Bruce, a titled Scotsman, to Mungo Park's *Travels in the Interior Districts of Africa Performed in the Years 1795, 1796, and 1797*. Also included are published accounts by Henry Morton

Stanley — *How I Found Livingston* (1872) and *In Darkest Africa* (1890), as well as one of the ten monumental, folio-size volumes of the *Description de L'Égypte*. Conceived and directed by Napoleon Bonaparte, this mammoth work documents the first systematic scientific investigation of any area in the continent of Africa.

The Museum's major 1901-1915 expedition to the Congo, led by mammalogist Herbert Lang and ornithologist James Chapin, enriched many of the Museum's collections as well as this exhibit. Ivory objects given to Lang by Chief Okondo and a Congo peacock painted by Chapin are on display. In addition, the visitor can see Asante gold weights and hand-colored prints from 1819 that illustrate an Asante board game, together with the actual game board.

—Linda Kramer

## Take a Natural History Break

### School-Break Workshops for Children

Two sessions: 10:30 a.m.-12:00 p.m. or 1:30-3:00 p.m.

Appropriate for children ages 5-10

\$18 per workshop session; Family/Dual and Higher Members only



#### Let's Go Fishing

Tuesday, February 17  
Program Code: MM4-02

Grab a line, we're headed out into the choppy seas for an adventure we won't soon forget. This cruise around the Hall of Ocean Life could prove to be a combination whale watch, shark attack, and sport fishing excursion. Back on firm land, we take scissors and colored papers to design and mount the one that didn't get away.

#### How Elephants Came to Eat Trees...and Other Elephantine Tales

Wednesday, February 18  
Program Code: MM5-02

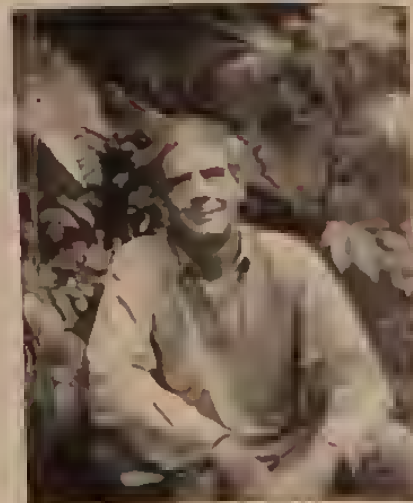
After reading a few African stories about elephants, we'll creep up on the Museum's African herd for a closer look. We'll talk about what makes an elephant a superlative beast, its size, trunk, ears, teeth, and all that skin. Then we'll retreat to create some elephant imagery of our own — a mask to wear or hang on the wall.

## Second Notice

### Lizard Island: Cuba's Delightful Tree-dwelling Lizards

Thursday, January 8  
Join Cuban biologist Alfonso Silva Lee for an illustrated lecture on the abundant and delightful species of lizards in Cuba.

Time: 7:00 p.m.  
Kaufmann Theater  
\$10; \$8 for Members  
Program Code: MM1-01



Alfonso Silva Lee

### Fleshing the Bones: Music Awakening Prehistory

Tuesday, January 27  
Come to the Museum's Theodore Roosevelt Rotunda for an unusual concert program performed with the dramatic backdrop of the reconstructed *Barosaurus* and *Allosaurus* fossil skeletons. Hear the Manhattan School of Music's percussion ensemble in the New York premiere of David Noon's *Symphonia Apocalyptica*.

Time: 7:00 p.m.  
Rotunda, 2nd floor  
\$12; \$10 for Members  
Program Code: MM2-01

## Members' Memo

We are sorry to let you know that the Garden Cafe, located in the Museum's lower level, will be closing on Wednesday, January 21, 1998. Stay tuned for more information in a future Members' Memo.

In the meantime, we suggest the following alternatives. The Diner Saurus Fast Service Eatery, which is located in the Museum's lower level, is open every day from 11:00 a.m. to

4:45 p.m. The Whale's Lair, found on the lower level of the Hall of Ocean Life, serves refreshments on Friday and Saturday from noon to 7:30 p.m. and on Sunday from noon to 5:00 p.m.

Members can also visit the Snack Carts in the 77th Street lobby, which serve food on Friday and Saturday from 11:00 a.m. to 7:30 p.m. and Sunday from 11:00 a.m. to 4:45 p.m.

## ROTUNDA

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## Members' Special Workshop

### New York City Geology and Geography Workshop

Two Wednesdays,  
February 4 and 18  
6:30–8:00 p.m.

Edith C. Blum Lecture Room  
\$20; \$18 for Members  
Program Code: MM1-02

In celebration of the one hundredth anniversary of the incorporation of all five boroughs into the city of New York, this workshop explores the geological and geographical aspects of the city.

Using modern and historical maps, participants follow the city's development and learn about its physical features, such as topography and landfill. Participants will construct geological cross-sections to create three-dimensional views of the underlying structure of New York City. They will also learn how to determine the latitude and longitude of the place they live in.



Detail of the northern tip of Manhattan and areas of the Bronx, from a U. S. Department of the Interior geological survey map of the New York–New Jersey Harlem Quadrangle

The workshop is conducted by geologist Sidney Horenstein, coordinator of the Museum's environmental programs.

## Members' Lecture

### Conservation of Tropical America: Ecological and Ethical Considerations

Tuesday, February 10

7:00–8:30 p.m.

Kaufmann Theater

\$10; \$8 for Members

Program Code: MM2-02

John Kricher, a professor of biology at Wheaton College and author of *A Neotropical Companion: An Introduction to the Animals, Plants, and Ecosystems of the New World Tropics* (Princeton University Press, 1997), will present a slide-illustrated lecture on the complex issues that surround decisions affecting the conservation of rain forests and other ecosystems of the American tropics.

Professor Kricher has traveled widely throughout the world's tropical regions and has published research on the ecology of North American migrant birds on their wintering grounds in the tropics. He is known for his ability to take complex scientific information and present it in an entertaining and easy-to-understand manner to a general audience. He will



John Kricher

be discussing several issues addressed in his recent book, including the effects of deforestation.

Copies of *A Neotropical Companion* will be available for purchase, and the author will sign them at the conclusion of the lecture.

On View in the Akeley Gallery  
Beginning mid-January

### Sacred Mountains of the World

As the highest and most dramatic features of the landscape, mountains have an extraordinary power to evoke the sacred. The ethereal rise of ridge in mist, the glint of moonlight on any icy face, a flare of gold on a distant peak — such glimpses of transcendent beauty can reveal our world as a place of unimaginable mystery and splendor. In the overwhelming sense of wonder and awe that mountains awaken, people experience a deeper reality that imbues their lives with meaning and vitality.

*Sacred Mountains of the World*, a traveling exhibition curated by Edwin

Bernbaum, a mountaineer and scholar of comparative religion and mythology, draws together images of striking power and beauty. In his award-winning book of the same name, Bernbaum explores the cultural, religious, and spiritual significance of such legendary peaks as Mount Kailas and T'ai Shan in Asia, Sinai and Zion in the Middle East, Kilimanjaro in Africa, and the San Francisco Peaks in North America.

Because of their evocative power, these and other mountains have come to reflect the highest and most central values of cultures around the world.



And as the sacred sites that encompass the most complete environments and ecosystems, mountains reveal the particular elements in nature that traditional societies revere and feel deeply motivated to protect.

The sense of wonder and awe awakened by mountains has also played a key role in the inspiration and continued vitality of the modern-day environmental movement. This photographic exhibition includes pictures by Bernbaum and other photographers encompassing four major themes: the power and mystery of mountains, sacred mountains and beliefs, sacred mountains as symbols, and sacred mountains and the environment.

The exhibition was organized and written by Bernbaum in conjunction with the National Museum of Natural History at the Smithsonian Institution. Bernbaum is a research associate at the University of California at Berkeley, a senior fellow with the Mountain

Members' Museum  
Hall Tour

### Wherefore Art Thou, Romeo?

Saturday, February 14

6:30 p.m.

Limited to Family/Dual  
and Higher Members

Free; tickets required and  
limited to two per person

Program Code: MM3-02

An answer to Juliet's question and other probing Valentine Day quandaries will be attempted on this most compatible of holidays. Tag along with "Cupid Campanile" and seek out the ancient and sometimes strange traditions of this high-hearted holiday. Discover how whales, wolves, and birds have helped shape our love traditions. Come view our Museum's one-of-a-kind love letter. He said... she said... romance lives on!

Institute, and a member of the World Commission on Protected Areas of the IUCN, or World Conservation Union. In conjunction with this exhibition, which will be coming soon to the Akeley Gallery, Bernbaum will be presenting two slide-illustrated lectures at the Museum on the evenings of January 26 and 28. See page 4 for more information about these talks.



Above: A caravan carries a mountaineering expedition between the Karakoram and Aghil Ranges in Western China. Above right: Pilgrim at Mount Kailas, Tibet



# Department of Education Programs

## Evening Lecture Series

### Two Lectures with Edwin Bernbaum

Monday and Wednesday,

January 26 and 28

7:00-8:30 p.m.

\$18; \$16 for Members

Program code: ED98201L

Edwin Bernbaum, curator of the traveling exhibition *Sacred Mountains of the World*, coming soon to the Akeley Gallery (see page 3), gives two lectures on the theme.

In the first, he uses a blend of slides, research, music, and personal experience to explore the rich and varied symbolism of mountains. In the second, he focuses on an unusual reforestation project in Badrinath in northern India. He demonstrates how science and religion can work together for the benefit of the environment and the preservation of cultural and spiritual values.

Bernbaum, a mountaineer and scholar of comparative religion and mythology, is a research associate at the University of California at Berkeley and a member of the Commission on National Parks and Protected Areas of the World Conservation Union.

### Earthwatch at the Museum: A Series of Five Lectures

First lecture: Thursday, February 5  
7:00-8:30 p.m.

\$12 per lecture (\$10 for Members)

\$35 for series (\$31.50 for Members)

Program Code: ED98203L

Earthwatch Institute promotes sustainable conservation of our natural resources and cultural heritage by creating partnerships among scientists, educators, and the general public.

In this series, Earthwatch scientists present their research using slides and occasionally video clips. The first lecture, "Mammoth Graveyard," explores Hot Spring, South Dakota, site of the largest natural deposit of Columbian mammoth remains in the Western Hemisphere. The speaker is Larry Agenbroad, geology professor at Northern Arizona University.

The four remaining lectures in the series are scheduled for March 5, April 2, May 7, and June 4, and cover, respectively, wild dolphin society, cultural adaptation in late Maya civilization, the Madagascar rainforest, and Costa Rican sea turtles. Look for details in upcoming issues of *Rotunda*.

### Diamonds and Other Operatic Gems: With the New York City Opera

Thursday, February 19

8:00-9:30 p.m.

\$12; \$10 for Members

Program code: ED98204L

Join noted music journalist, commentator, and New York City Opera dramaturge Cori Ellison for a panel

discussion with the ensemble's wardrobe director Bettina Bierly and chorus master Gary Wedow on the role of diamonds and jewels in opera. Vocalists from the company also perform excerpts from the gems of the operatic repertoire, including selections from this season's production of *Les Contes d'Hoffmann*.

This program is in celebration of *The Nature of Diamonds* exhibition.

### Human Evolution: Two Lectures by Jeffrey H. Schwartz

Two Fridays, February 20 and 27

7:00-8:30 p.m.

\$18; \$16 for Members

Program Code: ED98205L

In his first talk, Jeffrey H. Schwartz, a professor of physical anthropology at the University of Pittsburgh, addresses the ways in which biochemical data have been interpreted in an attempt to demonstrate a close relationship between humans and African apes. He shows that detailed comparisons between humans and the three large-bodied apes — chimpanzees, gorillas, and orangutans — indicate that humans share far more similarities with orangutans, which are found in Southeast Asia.

The second talk explores the debate over whether *Neanderthal* and *Homo sapiens* belong to the same species.

Schwartz is also a research associate in the Department of Anthropology and has written extensively on all aspects of primate evolution.

### Historical Geology

Four Tuesdays, beginning February 3

7:00-8:30 p.m.

\$30; \$27 for Members

Program code: ED98202L

Geologist Sidney Horenstein, the Museum's coordinator of environmental programs, offers this slide-illustrated series exploring the history of Earth from its origin 4.5 million years ago to the present.

The talk includes speculations about the earth's future. Participants investigate the movement of the continents, earthquakes, volcanic activity, mountain building, how weathering and erosion change landscapes, and the composition of rocks — Earth's basic materials.

A textbook, available in the Museum Shops, is suggested reading for this program.

### Wildlife Films for TV: An Inside Story

Monday, Thursday, and Friday,

February 23, 26, and 27

7:00-8:30 p.m.

\$24; \$21 for Members

Program code: ED97206L

What goes into the production of a nature film? Find out what's involved and how it's done during this unique series. From conceiving the idea to picking up a "green" Emmy three years later, follow the process step-by-step with a professional.

Hear the story in three intriguing installments, fully illustrated and including many movie clips.

This is a trio of entertainingly educational talks; it is not a workshop. The series is designed to inform and to provide insightful, eye-opening information about a very unusual profession.

### The Compleat Cockroach: A Look at the Most Despised and Least Understood Creature on Earth

Friday, February 27

7:00-8:30 p.m.

\$12; \$10 for Members

Program code: ED98207L

From the jungles of equatorial Africa to the Raid Research Institute of Racine, Wisconsin, explore the exciting world of the cockroach. Learn the steps to the "roach dance" and take a tour of the Cockroach Hall of Fame.

It's all part of *The Compleat Cockroach Traveling Road Show*, a one-hour program, narrated by David George Gordon, that focuses on the insect we love to loathe. Color slides, video clips, and a dazzling array of cockroachabilia enliven this eyebrow-raising event.

Gordon is an award-winning nature writer and the author of ten books on North American wildlife. His work has appeared in *Zoo Life*, *Wildlife Conservation*, and *National Geographic World* magazines.

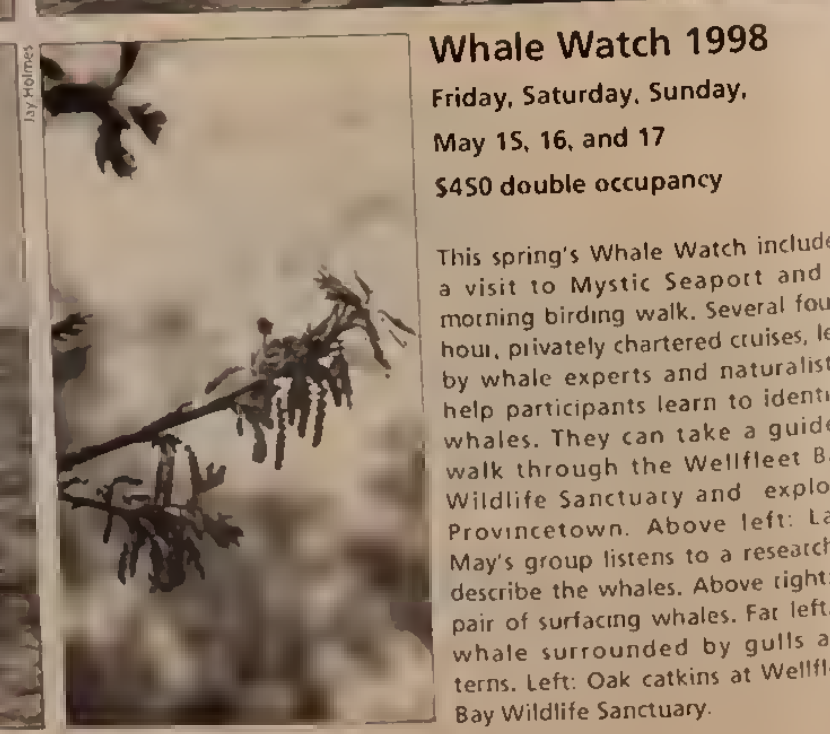
### Whale Watch 1998

Friday, Saturday, Sunday,

May 15, 16, and 17

\$450 double occupancy

This spring's Whale Watch includes a visit to Mystic Seaport and a morning birding walk. Several four-hour, privately chartered cruises, led by whale experts and naturalists, help participants learn to identify whales. They can take a guided walk through the Wellfleet Bay Wildlife Sanctuary and explore Provincetown. Above left: Last May's group listens to a researcher describe the whales. Above right: A pair of surfacing whales. Far left: A whale surrounded by gulls and terns. Left: Oak catkins at Wellfleet Bay Wildlife Sanctuary.





## Field Trips, Walking Tours, and Workshops

### Eagle Watch Weekend

Friday, Saturday, and Sunday,  
February 6-8

\$275

Limited to 16 Adults

Program code: ED98301X

Here is your chance to see eagles soaring overhead or perched by the river. Each winter, these majestic birds fly south in search of open water and food. The Delaware River offers a wonderful opportunity to see bald eagles as they congregate along the shoreline. Other sightings may include red tail hawks and turkey vultures. Sometimes golden eagles and osprey are also spotted. During this informative weekend, participants learn to identify different raptor species and practice birding skills. Field trips are combined with evening presentations and a live bird show.

Fee includes all transportation, accommodation, meals, lectures, and presentations. Lodging is provided at the Pocono Environmental Education Center in rustic cabins that sleep two to six and include a full bathroom. Meals are served buffet style.

### The High and the Mighty

Three Fridays, February 20 and 27  
and March 6

7:00-8:30 p.m.

\$30; \$27 for Members

Limited to 25 people

Program code: ED98302X

Mountains cover about 20 percent of Earth's land surface and are home to 10 percent of the human population. Only since 1992 has the mountain world achieved status as a threatened environment — the last of the major homes to do so.

The human experience of mountains includes both fear and awe — mountains have been both a challenging place to explore and the home of the gods. Products of the earth's most dynamic processes, mountains are both directly and indirectly vital to the well-being of more than half the people on Earth.

Explore the mountain world through the Museum's magnificent dioramas and halls in a series of tours led by Robert Campanile, Museum docent, lecturer, and natural science teacher.

## Free Programs

### A Special Jesup Centenary Celebration Program

This special program is held in conjunction with "Drawing Shadows to Stone: Photographing North Pacific Peoples, 1897-1902," the exhibition currently on view in Gallery 77.

Along with vocal and dance performances, there will be a talk on Eskimo folklore culled from what is considered the longest continuously occupied village in the United States — Point Hope, Alaska.

In the first-floor Hall of Northwest Coast Indians, artisans will demonstrate their traditional techniques.

Below are the dates and times of performances and demonstrations.

#### Tikigak Traditional

##### Dancers and Artisans

Saturday, January 10

Two performances: 2:00 and 7:00 p.m.

Kaufmann Theater

##### Demonstrations of Baleen Basketry,

##### Fur Sewing, and Bow Drill Carving

Thursday and Friday, January 8-9

Two sessions: 10:00 a.m.-noon and

1:00-4:00 p.m.

Hall of Northwest Coast Indians

### The Jesup Expedition Lecture Series

Two Saturdays, January 17  
and February 7

1:00-3:30 p.m.

In the last two talks in this film and lecture series, two anthropologists examine the nature, historic role, and context of the Museum's turn-of-the-century Jesup Expedition to Siberia and the Pacific northwest coast of North America.

On January 17, Paula Rubel, of Barnard College, presents "Collections and Acquisitions," and on February 7, Bruce Grant, of Swarthmore College, offers "Jesup History and Remembrances of Times Past."

### Reports From the Front: There's Still Time to Save the Indian Tiger

Wednesday, February 18

7:00-8:30 p.m.

Main Auditorium

More than half of all the wild tigers in the world live in India and the neighboring countries of Bhutan, Nepal, and Bangladesh. Despite many threats, ranging from human population growth to the depletion of prey species, tigers continue to survive. But for how long?

In this special program, which takes place at the beginning of the Chinese year of the tiger, two of India's most eminent authorities on this magnificent predator discuss the ongoing battle to ensure its continued survival. Field biologist K. Ullas Karanth of the Wildlife Conservation Society and Valmik Thapart, wildlife photographer and author of *The Tiger's Destiny*, offer a clear-eyed assessment of the tiger's future and suggest ways in which interested individuals can help. Thapart and Karanth illustrate their talk with photographs shot in the field.

### Thirteenth Annual New York Sword Dance Festival

Saturday, February 14

Kaufmann Theater

Two performances: 1:00 and 2:30 p.m.

During this festival, a dozen sword dance teams come to New York from all over the globe for an exciting weekend of performances in public spaces around the city. One of their stops this year will be at the Museum.

Travel back in time to witness the mystical, stately art of long-sword and other specialized sword displays. The dances are accompanied by music played on a variety of folk instruments.

You can make reservations for these programs by calling Central Reservations at (212) 769-5200 or by filling out the coupon on page 6.

Please note that Members' prices also apply to students and senior citizens, but that there is no discount for workshops, walking tours or field trips.

# Hayden Happenings

### Frontiers in Astrophysics

#### Let There Be Light: Watching Star Birth

Monday, January 26

7:30 p.m.

Miriam and Ira D. Wallach

Orientation Center

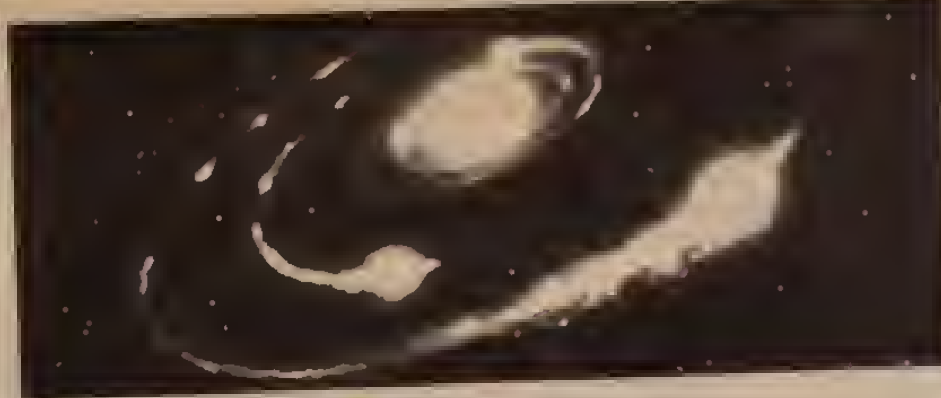
\$8; \$7 for Members

Program Code: HP104L

Understanding how stars (such as our sun) form is one of the principal challenges facing modern astrophysics. In this talk by Elizabeth Lada, assistant professor of astronomy at the University of Florida, Gainesville, participants visit some nearby stellar nurseries and explore some of the surprising discoveries made in the last decade about the birth of stars.

Recent advances in astronomical technology, especially in infrared and millimeter wavelengths, have allowed astronomers for the first time to peer into the dark, cold, and dusty birthplaces of the stars. The quest to unravel the mysteries of stellar birth has led to many new and unexpected discoveries.

Elizabeth Lada's main research interest is the investigation of the formation and properties of stars in very young clusters. In 1992, she was the recipient of the Annie Jump Cannon Award for distinguished contributions to astronomy.



Artist's rendition of the early solar system

### Distinguished Authors in Astronomy

#### A Universe of Color

Thursday, January 29

7:30 p.m.

Kaufmann Theater

\$8; \$7 for Members

Program Code: HP108L

The night sky has intrigued mankind for centuries, but it has always appeared strangely colorless to the eye, even with a large telescope. Now, modern imaging techniques reveal that the stars, nebulae, and galaxies we view in the night sky display many vivid hues.

David Malin, a photographic scientist-astronomer working at the Anglo-Australian Observatory outside Sydney, Australia, has devised novel ways of extracting more information from photographs, and incorporated these techniques into a method of making a series of unique, three-color astronomical photographs. The colors, in turn, reveal much about the origin

and destiny of the vast cosmic cycle that includes the warming sun and the earth beneath our feet. In this talk, illustrated with a large variety of slides, Malin briefly describes, in non-technical terms, how the true colors of some of the most spectacular objects in the universe are revealed and what the colors mean.

Malin is adjunct professor of scientific photography in the Department of Visual Communications at the Royal Melbourne Institute of Technology. Before taking up astronomy, he worked for many years as a chemist, specializing in optical and electron microscopy, X-ray diffraction, and other techniques for exploring the very small. He has worked at the Anglo-Australian Observatory since 1975.

Programs begin at 7:30 p.m. and take place in the Miriam and Ira D. Wallach Orientation Center, on the fourth floor. Please note that Members' prices also apply to students and senior citizens.





## Members' Birthday Parties at the Museum

Not sure what to do this year for your child's birthday? Why not try a birthday party he or she won't soon forget. All you have to do is choose from one of our many stimulating party themes — and bring the cake. We'll take care of the rest.

You might choose our most popular theme, **The Dinosaur Party**. With one of our birthday party coordinators, the group explores the famous fourth-floor dinosaur halls and then, in the party room, they handle fossil casts, learn how fossils are formed, and make a fossil cast to take home.

Or perhaps your child and his special friends would prefer a **Safari Party**, in which children learn about African natural history and cultures

though special guided hall tours and hands-on experience with some of the objects from the Museum's collection. Or choose one of our other exciting themes.

All parties last two hours and include an introduction to and demonstration of artifacts, a hall tour, arts and crafts projects, games, storytelling, refreshments, and favor bags. The parties are limited to Members at the Contributor (\$100 a year) level and above. The fees cover all materials and the services of Museum staff, who customize each event to suit the individual needs of the birthday child and his or her family.

For more information, call our office at (212) 769-5013.

The Membership Office would like to thank the following young Members who celebrated their birthdays here recently: In October — Alex Sugerman, Andrew Tanb, Matthew Levin, and Geoffrey Green; in November — Jasper Cregan, Ian Callender, Willie Cockrell, Spencer Nelson, Andrew Boyd, William Bishop, and Giovanna Rogano.

## At the Museum Shops

The stuff of the earth is at the Museum Shops. New to our mineral selection are Rikor mounted diamond specimens and the Museum's own line of mineral sample sets.

The diamond sets are available in four different versions. Our *Diamonds and the Rough* set includes one uncut diamond crystal (weighing from .10 ct to .15 ct) and one full-cut, round brilliant diamond (.03 ct-.05 ct), priced at \$69 (Members' price, \$62.10). The *Natural Colored Diamond* set includes three full-cut, round brilliant diamonds (.02 ct-.03 ct), one each in white, yellow, and brown, for \$85 (\$75.50 for Members). Also available is a single full-cut, round brilliant white diamond mount in two sizes, .07 ct-.10 ct, for \$125 (\$112.50 for Members), and .15 ct-.22 ct for \$225 (\$202.50 for Members). Sure to win a prominent place in your collection of minerals or natural curios, each sparkling stone is handsomely mounted under glass on a black background, and each set contains informational text.

The Museum's own mineral sample sets were created with the help of one of the scientists from the Department of Earth and Planetary Sciences. Each set contains specific information about the stones, as well as a handy glossary of gems. Three versions are available. *Minerals of the World* sells for \$15.95 (\$14.36 for Members), *Minerals of the*

*USA* for \$8.95 (\$8.06 for Members), and *Minerals of New York State* for \$5.95 (\$5.36 for Members.) Young rock hounds will love learning from these updated classics.

Of course, we still carry a beautiful selection of mineral carvings, agate hookends, and spectacular specimens of amethyst, quartz, pyrite, peridot, and other fascinating minerals. All that glitters is available to you in the Museum Shops.



The Museum Shop's mineral sample sets

# Central Reservations Coupon



**By Phone** Call (212) 769-5200 six days a week — Monday through Friday from 8:00 a.m. to 6:00 p.m. and Saturday from 10:00 a.m. to 6:00 p.m. Have your credit card and membership category ready when you call.



**By Mail** Send the registration form below to Central Reservations, American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192. Make checks payable to the American Museum of Natural History.

### Membership Programs

Program Title

Code

Date/Time

# of Membership  
Reservations

# of non-Membership  
Reservations

Total Amount  
Enclosed

\$ \_\_\_\_\_

\$ \_\_\_\_\_

\$ \_\_\_\_\_

\$ \_\_\_\_\_

### Education Department

\$ \_\_\_\_\_

\$ \_\_\_\_\_

\$ \_\_\_\_\_

\$ \_\_\_\_\_

### Hayden Planetarium

\$ \_\_\_\_\_

\$ \_\_\_\_\_

\$ \_\_\_\_\_

Total Amount Enclosed:

\$ \_\_\_\_\_

Name: \_\_\_\_\_

Phone (day): \_\_\_\_\_

(eve.): \_\_\_\_\_

Address: \_\_\_\_\_

Charge my: \_\_\_\_\_

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Visa \_\_\_\_\_

Master Card \_\_\_\_\_

City: \_\_\_\_\_

State: \_\_\_\_\_

Zip: \_\_\_\_\_

Card Number: / \_\_\_\_\_ /

Membership Category: \_\_\_\_\_

Signature: \_\_\_\_\_

Expiration Date: \_\_\_\_\_



Museum Notes

HOURS

EXHIBITION HALLS  
Mon.-Thurs. & Sun. 10:00 a.m.-5:45 p.m.  
Fri. & Sat. 10:00 a.m.-8:45 p.m.

THE MUSEUM SHOP  
Mon.-Thurs. & Sun. 10:00 a.m.-5:45 p.m.  
Fri. & Sat. 10:00 a.m.-7:45 p.m.

THE JUNIOR SHOP  
Mon.-Fri. 10:00 a.m.-4:45 p.m.  
Sat. & Sun. 10:00 a.m.-5:45 p.m.

THE MUSEUM LIBRARY  
Tues.-Fri. 11:00 a.m.-4:00 p.m.

THE NATURAL SCIENCE CENTER  
The Center features the plants and live animals that live in New York City's wild places. Closed holidays.

Tues.-Fri. 2:00-4:30 p.m.  
Sat. & Sun. 1:00-4:30 p.m.  
Thursday storytelling 3:00 p.m.

MUSEUM DINING

DINER SAURUS FAST SERVICE EATERY  
Daily 11:00 a.m.-4:45 p.m.

GARDEN CAFE  
Reservations: (212) 769-5865  
Lunch: Mon.-Fri. 11:30 a.m.-3:30 p.m.  
Dinner: Fri. & Sat. 5:00-7:30 p.m.  
Lunch: Sat. & Sun. 11:00 a.m.-4:00 p.m.

SNACK CARTS  
Fri. & Sat. 11:00 a.m.-7:30 p.m.  
Sun. 11:00 a.m.-4:45 p.m.

List of Exhibits

EXHIBITS

*In the Kingdom of Imerina:  
Early Photographs and New Textiles  
from Madagascar*

*The Nature of Diamonds*

*Drawing Shadows to Stone: Photographing  
North Pacific Peoples, 1897-1902*

*Sacred Mountains of the World*  
(opening mid-January)

LOCATION

Akeley Gallery, 2nd floor

Gallery 3, 3rd floor

Gallery 77, 1st floor

Akeley Gallery, 2nd floor

ON VIEW UNTIL

1/4/98

4/26/98

3/1/98

4/1/98

ENTRANCES

During Museum hours visitors can enter the building through the 77th Street entrance, the first- and second-floor Roosevelt Memorial Hall entrances (79th Street and Central Park West), or through the subway entrance. Visitors attending programs after hours can enter the building through the security entrance at 79th Street and Central Park West, down the driveway. Tickets can be picked up or purchased at the ticket desk just inside the entry.

PHONE NUMBERS

Museum information  
Planetarium information  
Education Department  
Discovery Tours  
toll-free outside NY State:  
IMAX®

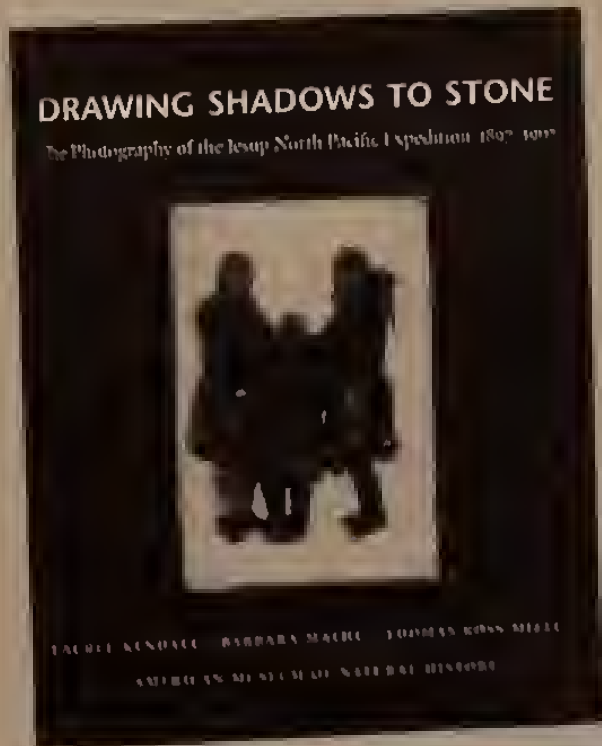
(212) 769-5100  
(212) 769-5900  
(212) 769-5310  
(212) 769-5700  
(800) 462-8687  
(212) 769-5034

Development (212) 769-5151  
Communications (212) 769-5800  
Volunteer Office (212) 769-5566  
Museum Shop (212) 769-5150  
Library Services (212) 769-5400  
*Natural History* magazine (212) 769-5500  
Membership Office (212) 769-5606  
Members' Birthday Parties (212) 769-5013  
Planned Giving Office (212) 769-5119  
toll-free outside NY State: (800) 453-5734  
Central Reservations (212) 769-5200  
World Wide Web Site <http://www.amnh.org>

PARKING

The visitor parking lot is temporarily closed. For public transportation and local parking information, call (212) 769-5606. The Museum is well served by public transportation.

A Stunning and Provocative  
Work of Documentary  
Photography



This handsome volume presents more than sixty photographs selected from the Museum's archives. One hundred years after the original Jesup expedition, curator Laurel Kendall of the Asian Ethnographic Collections raises leading questions about how these North Pacific peoples saw themselves. Barbara Mathé and Thomas Ross Miller, co-curators of the current exhibition, examine the attitudes of the early anthropologists and what the photographs tell us.

In the Museum stores, \$22.50, paperback

Enjoy our glittering  
DIAMOND BRUNCH  
and visit  
The Nature of Diamonds



Sundays:

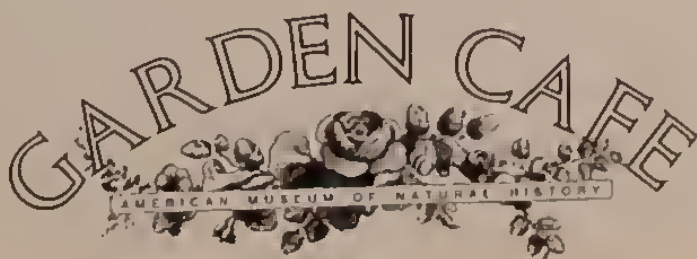
January 11 and January 18

Museum members \$22.95

Non-members \$29.95

includes our lavish DIAMOND BRUNCH,  
a guided tour of The Nature of Diamonds Exhibition,  
tax and gratuities

For pre-paid reservations,  
please call (212) 769 5200





Mon      Tues      Wed      Thurs      Fri      Sat

# January 1998 American Museum of Natural History

7

## Multicultural Programs

The Department of Education is presenting a series of free events and programs on the weekends of January 10-11, 17-18, and 24-25 on the theme *Healing Cross-Cultural Traditions*. Healing practices will be explored through performance, lectures, and films. These programs take place in the Leonhardt People Center. Please call (212) 769-5315 for more information.



This event for the Jesup Centenary Celebration is made possible by public funds from the New York State Council on the Arts.

Tikigag dancer



courtesy Thibaut Traditional Dancers and Artists

11

2:00 p.m.  
New York Shell Club  
Edith C. Blum Lecture Room  
Free

12

13

7:30 p.m.  
Linnaean Society of New York  
Leonhardt People Center  
Free

### Carry the Card!

Card-carrying Members can take advantage of our new express line on weekends if they enter at the second-floor Rotunda on Central Park West. Express-line tickets are for Museum admission only. So carry the card!

8

10:00 a.m. and 1:00 p.m.  
Jesup Centenary  
Celebration Program  
Craft demonstrations  
Page 5

7:00 p.m.  
*Lizard Island: Cuba's Delightful Tree-dwelling Lizards*  
Slide-illustrated lecture; speaker,  
Alonso Silva Lec. Page 2

9

10:00 a.m. and 1:00 p.m.  
Jesup Centenary  
Celebration Program  
Craft demonstrations  
Page 5

6:00 p.m.  
Amateur Astronomers  
Association  
Kaufmann Theater  
Free

10

2:00 and 7:00 p.m.  
Jesup Centenary  
Celebration Program  
Tikigag Traditional  
Dancers and Artists  
Kaufmann Theater  
Page 5

6:30 p.m.  
New York Stereographical Society  
Linder Theater  
Free

16

17

1:00 p.m.  
*The Jesup Expedition Lecture Series*  
*Collections and Acquisitions*; speaker,  
Paula Rubel; page 5

18

10:30 a.m.  
New York Turtle & Tortoise Society  
Room 319  
Free

19

Martin Luther King, Jr. Day

20

7:00 p.m.  
New York  
Entomological Society  
Leonhardt People Center  
Free

21

22

7:00 p.m.  
New York Microscopical Society  
Linder Theater  
Free

23

24



25

1:00 p.m.  
New York Mycological Society  
Room 319  
Free

26

7:00 p.m.  
*Sacred Mountains of the World*  
Slide-illustrated lecture; speaker,  
Edwin Bernbaum; page 4

27

7:00 p.m.  
*Fleshing the Bones:  
Music Awakening Prehistory*  
A concert performed in the 2nd-  
floor Roosevelt Rotunda; page 2

28

7:00 p.m.  
*Sacred Trees, Sacred Mountains:  
Pilgrimage and Conservation  
in the Himalayas*  
Slide-illustrated lecture; speaker,  
Edwin Bernbaum; page 4

29

7:30 p.m.  
*Distinguished Authors  
in Astronomy* lecture  
*A Universe of Color*  
Speaker, David Malin; page 5

30

6:30 p.m.  
*Let the Games Begin*  
Guided hall tour with Robert  
Campanile

31

7:30 p.m.  
The Discovery Room is open  
Today and Sunday, February 1  
*Museum Magic* theme for the month:  
"Dioramas: Windows on the World"  
Leonhardt People Center; free

2:00 p.m.

Introduction to Origami  
Presented by OrigamiUSA. Call  
(212) 769-5635 for information.



# ROTUNDA

For Family/Dual and Higher Members of the American Museum of Natural History

Vol. 23, No. 3 March 1998

## New Hall of Biodiversity to Open in Spring

Doris E. Smith



Exhibition staff member re-creating a tree for the rainforest diorama.

Scientists estimate that millions of species of animals, plants, and microorganisms face extinction over the next three decades, a decline that threatens the delicate and complex balance of life on earth. In defining and examining the key issues involved in understanding and preserving the diversity of life, the Museum's new Hall of Biodiversity, scheduled to open this spring, will explore the causes and implications of species decline, reveal the challenges society faces if it is to preserve the variety of the planet's living things, and offer solutions on how to protect against further loss of biodiversity.

Leading the team of scientists, designers, artisans, and volunteers in this colossal effort to bring the Hall of Biodiversity to fruition are Niles Eldredge, curator in the Museum's Department of Invertebrates; Francesca Grifo, director of the Museum's Center for Biodiversity and Conservation; and Joel Cracraft, curator in the Museum's Department of Ornithology; together with Ralph Appelbaum Associates (designers of the Museum's fossil halls), and the Museum's exhibition staff.

The Hall's essential purpose will be to convey the message that biodiversity is a matter of urgent and practical concern to all people. Global diversity and the balance of species and habitats contribute to the medicines that cure us, the industry and commerce that support our economies, and the foodstuffs that feed us. The lives of city

dwellers as well as those of people in remote rural areas are profoundly affected by overexploitation of natural resources. Environmental degradation and species extinction throughout the world not only threaten the survival of all species, but also damage the health, economic stability, and quality of life of humans. One of the most important messages of the new Hall of Biodiversity is that species and habitat diversity is critical to our lives and the larger world around us, and it must be conserved.

The 11,000 square-foot permanent exhibition hall has four principal components, with the first two being centered on the ecological and evolutionary aspects of biodiversity. The ecological component will illustrate the diversity of global habitats while the evolutionary component will demonstrate the diversification of major groups of organisms and their interrelationships—the product of 3.5 billion years of evolutionary history.

The spectacular 100-foot-long installation entitled *The Spectrum of Life* focuses on the evolutionary aspect of biodiversity. It is a three-dimensional parade displaying approximately 1,200 mounted specimens and models ranging from microorganisms to terrestrial and aquatic giants, including microbes, fungi, plants, and animals. Computers adjacent to the installation will provide information about the various species, including the fundamentals of their evolution, their characteristic roles

within ecosystems, and the evolutionary relationships linking them to all life.

Within the section illustrating the ecological aspect of biodiversity will be a phenomenal walk-through diorama—a reconstruction of part of the Dzanga-Sangha Rainforest of the Central African Republic. The Dzanga-Sangha Rainforest was chosen as the symbol and archetype of earth's biodiversity and the global diversity crisis because of its tremendous species

diversity, and because African rainforests are under such severe threat. Moreover, as J. Willard Whitson, Associate Director of Exhibitions for the Museum, points out, the Dzanga-Sangha Rainforest is an "island of relative calm and preservation on a continent that is by and large under siege, and is therefore emblematic of what can be done to stem the tide of destruction." Scientists expect to identify at least 150 species of mammals, 300 species of birds, hundreds of species of trees, and thousands of species of ants, termites, beetles, and butterflies from this area. The rainforest is also home to some of the greatest concentrations of forest elephants and lowland gorillas in all of Africa, as well as to large numbers of chimpanzees.

Through the lens of the Dzanga-Sangha Rainforest diorama, the Museum will turn the spotlight on this endangered global resource. Employing digital photography, video, and sound, the 2,500-square-foot installation will create an environment in which animals appear to move through the forest and lighting effects simulate forest ambiance at different times of the day.

To illustrate the challenges associated with conserving biodiversity, visitors, while walking the length of the rainforest diorama, will experience its transformation from a pristine state to

*Continued on page 7*



Ongoing construction of the rainforest diorama.

Doris E. Smith



## Sharing the Night Sky

April 23, 7:00 p.m. to 9:00 p.m.

One of the world's foremost amateur astronomers, David H. Levy, co-discoverer of the Shoemaker-Levy 9 comet, will explore the splendors of the night sky through a multimedia presentation using poetry, music, slides, and video. During his lecture, Levy will discuss, among other things, the world of comets and asteroids, methods of identifying the constellations, and how to observe the sun safely. Immediately following the discussion, Levy will be on hand to sign copies of his latest publication, *Sharing the Sky: A Parent's and Teacher's Guide to Astronomy*.

The brilliant trailing beauty of fiery comets has inspired fear, wonder, and awe since the dawn of human history. Moving and disappearing in their own singular orbits, and at times brighter than stars, comets have been among the most mysterious elements in the sky, eluding our understanding until very recently. With the aid of space probes, scientists have discovered that these swiftly moving chunks of ice, dust, and carbon are more plentiful and far more dangerous than suspected.

The Shoemaker-Levy 9 comet was first sighted in March 1993 by Levy and his colleagues Eugene and Carolyn Shoemaker. Torn into a multitude of pieces and scattered across 100,000 miles of space after encountering the forces of Jupiter's gravity, the Shoemaker-Levy 9 comet later collided with the huge planet in the summer of 1994. The impact of the comet on Jupiter was the most spectacular fireworks show ever witnessed in the solar system. Though far smaller, the crash was similar to the collision of a large comet or asteroid with Earth 65 million years ago, the catastrophe implicated in the mass extinction of dinosaurs and many other species of life.

Credited with the third largest number of comet discoveries since records have been kept, Levy has detected 21 comets to date. In addition to his celestial observations, Levy is also an accomplished author of several books, including: *The Quest for Comets: An Explosive Trail of Beauty and Danger*; *Skywatching: Impact Jupiter*; *The Crash of Comet Shoemaker-Levy 9*; and *More Things in Heaven and Earth: Poets and Astronomers Read the Night Sky*. Levy has received a number of honors for his work, most notably the Chant Medal from the Royal Astronomical Society of Canada and the NASA Public Service Group Achievement Award.

Currently, Levy is a contributing editor for *Parade Magazine*.

Sharing the Night Sky is a joint presentation by the Membership Department and the Hayden Planetarium. The lecture will be held in the Main Auditorium. Program code: MM-1. Fee: \$8 members; \$10 non-members



David Levy

## Fossils on Fifth Avenue

April 15 & 16, 5:30 to 7:30 p.m.

Rocks are the pages of earth's history, and embedded in the stones of building facades and sidewalks of this city are animals that lived over a millennium ago. Geologist Sidney Horenstein, coordinator of the Museum's environmental programs, will conduct a walking tour down Fifth Avenue, identifying fossils and rocks, many of which are over 100 million years old, along the way. On this tour one will have the opportunity to see the results of the collision of continents, extinct cousins of chambered nautiluses, ripple marks formed in 300-million-year-old seas, and the remains of a coral reef that once grew in a tropical sea in Missouri during the Devonian Period. Program code: MM-3 Fee: \$20 members



425 million-year-old chambered nautilus



Haley's Comet

## Five-Borough Bus Tour

March 22, 9:00 a.m. - 4:00 p.m.

In celebration of the one-hundredth anniversary of the foundation of New York City, Sidney Horenstein will lead a special bus tour of all five boroughs. The bus will leave from the Museum then head northward, crossing the Harlem River to the Bronx. It will then pass over the East River to Queens and continue southward to Brooklyn. From there, the bus will travel across the Verrazano-Narrows Bridge to Staten Island and then head back to the Museum by way of New Jersey. Program code: MM3-03. Fee: \$60



## Becoming Human

March 19, 7:00 p.m.

Ian Tattersall, curator in the Museum's Department of Anthropology and the creator of the popular Hall of Human Biology and Evolution, will lecture on some of the topics covered in his newest book, *Becoming Human: Evolution and Human Uniqueness*. Tattersall will be available to sign copies of his book after the lecture. Location: Kaufmann Theater. Program code: MM1-03. Fee: \$8 members; \$10 non-members.

## Green with Envy

April 17, 6:30 p.m.

Join Robert Campanile on his museum tour and discover why green plants are among the most successful and abundant organisms on earth. Learn why plants are cool (literally), how they breathe and grow, cope with environmental stress, respond to sound, wage chemical warfare, and serve as food sources. As you venture from the arctic to the tropics, you will realize why one shouldn't take the 'green' for granted. Program code: MM-2



## ROTUNDA

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March 1998

Cleo Cacoulidis — Editor  
Michel DeMaureis — Copy Editor  
Rosemary Carlik — Director of Membership  
Peggy Conversano — Designer

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## Kings, Chiefs, and Women of Power

In modern-day Nigeria, kings and chiefs continue to exert a profound influence over the people. While elsewhere traditional roles consist mostly of superficial pomp rather than sacred drama, this is not the case for West Africa, particularly in Nigeria, where traditional rulers are highly respected. Far from being a spectacular anachronism, traditional rule in Nigeria represents the dominant social reality for a large section of the population.

Kings, Chiefs, and Women of Power presents a series of thirty large-format Cibachrome prints centered on portraiture and ritual clothing of some of Nigeria's traditional leaders. The images, a result of photographer Phyllis Galembo's extensive travel and research in Nigeria, are powerful documents that reveal the beauty, dignity, strength, and fortitude of the chosen subjects. Moreover, the photographs, along with accompanying text, testify to the changes wrought by modernism on this centuries-old culture, as well as provide the viewer with information on the historical role of traditional leaders in Nigeria.

Many of the individuals photographed are from Benin City, one of the oldest monarchies in Africa. In addition to pictures of men and women of power outfitted in ceremonial dress, the exhibition includes photos of palace and town chiefs and several persons known as "king makers."

Galembo, who holds a Master of Fine Arts in photography and printmaking, is currently a professor at the State University of New York at Albany where she teaches photography. She has exhibited, lectured, and traveled widely in the United States, Nigeria, Brazil, Haiti, and Cuba. For Kings, Chiefs, and Women of Power, Galembo made several trips to Nigeria beginning in 1991. In 1994 she received a Senior Fulbright Research Award, which allowed her to spend six months at the University of Benin, Benin City, Nigeria. Galembo's long-time interest in ritual clothing and the art of the African Diaspora culminated in a book entitled *Divine Inspiration: From Benin to Bahia*. She is presently releasing her latest publication, *Vodou: Visions and Voices of Haiti*, by Ten Speed Press.



Okoa Awerioghene, Benin City, Nigeria

Kings, Chiefs, and Women of Power will be located in the Akeley Gallery from April 10 through June.

## Sacred Mountains of the World

Mountains have an extraordinary power to evoke feelings of the sacred. A ridge materializing out of the mist, moonlight glinting on an icy face, dawn gliding a distant peak—such glimpses of transcendent beauty can reveal a world of unimaginable mystery and splendor. The fierce play of thunder, lightning, wind, and clouds about the heights can make us aware of powerful forces beyond our control, forces that inspire fear and respect. In the sense of wonder and awe that mountains awaken, people throughout the world—from traditional pilgrims to modern-day mountaineers—experience a feeling of deeper reality.

The exhibition Sacred Mountains of the World features twenty-seven color photographs of revered mountains around the globe. From Mount Everest to Mount Kilimanjaro, the exhibition explores the cultural, religious, and symbolic significance of these hallowed places, and how societies have often associated mountains with their highest and most central beliefs and values. Based on a book of the same title by mountaineer and scholar Edwin Bernbaum, the photographs depict mountains in various locations, including China, India, Egypt, Peru, and Chile.

Sacred Mountains of the World is on view at the Akeley Gallery through March 31.



Greek Orthodox Monastery of Saint Catherine, Egypt

## Women of the World: Expressions of Their Histories

In celebration of International Women's History month, the Museum is offering several remarkable programs over three weekends in March. The events will highlight the unique talents and contributions of women through the fields of music, literature, film, painting, dance, philosophy, and anthropology.

### March 7 & 8

Video: *A Time to Woo* (1994), 50 min.

Director: Patti Langton

1:00 p.m.

"You have captured my liver." In the Atlas Mountains of Morocco, this statement represents the greatest expression of young love in the Berber community. Focusing on a woman and a girl from the Ait Haddidu tribe, the video examines the ritual of the annual bride fair, a gathering where singles hope to meet potential husbands or wives.

Making and Explaining History Through Art

2:15 - 3:15 p.m.

This presentation features the work of artist Karuna Chak. Chak's paintings of women from various regions of India are noted for their watercolor style, a technique associated with Indian contemporary art. The artist's daughter, Vandana Chak, will be on hand to discuss her mother's life and work, and how her paintings trace the role of women during India's passage to independence.

Wild Women Don't Get the Blues

3:30 - 4:15 p.m. & 4:30 - 5:15 p.m.

Jazz vocalist and composer Lenora Zenzalai Helm will present an afternoon of blues and jazz music. With bass player Miriam Sullivan, pianist Orrin Evans and drummer Nasheet Waits, Helm will explore how women's creative expressions "blazed trails and set standards."

### March 14 & 15

Video: *An Initiation Kut for a Korean Shaman* (1991), 37 min.

Director: Diana S. Lee and anthropologist Laurel Kendall

1:00 p.m.

Chini, a 32-year-old Korean woman, is convinced she is destined to be a shaman. The documentary portrays her initiation "Kut" and the events leading up to it.

The Life and Hard Times of a Korean Shaman

2:15 - 3:15 p.m.

Laurel Kendall, curator of the Museum's Asian Ethnographic Collections, will discuss her work with Korean women and her experiences making *An Initiation Kut for a Korean Shaman*.

Women's Stories from Around the World

3:30 - 4:15 p.m. & 4:30 - 5:15 p.m.

Nina Jaffe, author and storyteller, will present tales from diverse cultures. Jaffe's most recent books are *Patakin World Tales of Drum and Drummers* and *A Voice for the People: The Life and Work of Harold Courlander*. The program includes music and audience participation.

### March 21 & 22

Video: *Amrit Beeja: The Eternal Seed* (1996), 43 min.

Director: Meera Dewan

1:00 p.m.

Combining music, poetry, and humor, Amrit Beeja celebrates Indian women's agricultural knowledge as it examines their struggle against the bio-resource designs of multinational agribusiness.

More Women's Voices

2:15 - 3:15 p.m.

Maxine Greene, renowned philosopher, author, and professor, will talk about several theories that inform, frame, and influence women's education. Drawing upon three of her books, *Landscapes of Learning*, *Dialect of Freedom* and *Releasing Imagination*, she will illustrate the need for women's participation in the development of educational policies. \*\*3/21 only

Hispanic, Female, and Young

2:15 - 3:15 p.m.

High school students from the Manhattan East School, along with New York City teachers Phyllis Tashlik and Ann Raitay, will read excerpts from the anthology *Hispanic, Female, and Young*. \*\*3/22 only

Circle Dances

3:30 - 4:15 p.m. & 4:30 - 5:15 p.m.

Roberta Altman, music and movement specialist, will teach and perform a variety of circle dances entrusted to women in different cultures. The program includes Native American, Asian, and African American games and dances.

These programs are free with Museum admission and do not require a ticket. All seating is limited and is on a first-come, first-served basis. For further information, call the Museum's Department of Education at 212-769-5315 between 9:00 a.m. and 5:00 p.m. weekdays.



## Program Listings

### Department of Education

#### John Burroughs Programs

John Burroughs (1837-1921) was a leading literary critic and a pioneer in nature writing. The John Burroughs Association, Inc., founded and headquartered at the Museum, presents programs and talks to preserve places associated with the life of the famous naturalist. It also maintains Slabside, the rustic cabin where Burroughs studied nature and wrote some of the essays that won him fame.

**Association Annual Meeting**  
April 6, 10:30 - 11:45 a.m.

**Annual Literary Lunch and Award Ceremony**  
April 6, 10:30 - 11:45 a.m.

The Association will announce the awards for its 71st annual Literary Medal Award competition for exceptionally fine nature writing; the 9th annual competition for the John Burroughs List of Nature Books for Young Readers; and the 5th annual competition for an Outstanding Published Natural History Essay.



John Burroughs

#### Lectures

##### Wild Dolphin Society

March 5, 7:00 - 8:30 p.m.  
Bottlenose dolphins have an incredible range of cognition, acoustical communication, and complex behavior enabled by their large brains. As human activities increasingly destroy dolphin habitats, we have an urgent need to better understand our marine counterparts. Randall Wells will discuss his Earthwatch research involving long-term observations of at least four generations of bottlenose dolphins. He currently works as Conservation Biologist for the Chicago Zoological Society and as the Marine Mammal Research Program Manager at Mote Marine Laboratory in Sarasota, Florida. Program code: ED98203L. Fee: \$12; \$10 AMNH & Earthwatch members.

##### Cycles of Adaptation and Cultural Transformation at Postclassic Maya Island Sites in Belize

April 2, 7:00 - 8:30 p.m.  
Belize's Island Maya, Laguna de On, Belize, speaks to the little understood collapse of the Mayan civilization in the Postclassic period (900 to 1500 C.E.). Marilyn Masson, professor of anthropology at the State University of New York, Albany, will present her discoveries, suggesting that the Maya had a profound degree of village-level

social complexity, and that Classic-period Maya consumed all of their natural resources, something many modern societies seem to be doing as well. Program code: ED98203L. Fee: \$12; \$10 AMNH & Earthwatch members.

##### Wild Camels of Mongolia

March 16, 7:00 - 8:30 p.m.

An account of expeditions into the Mongolian Gobi, the Gashun Gobi, the Desert of the Lop, and the Taklamakan Desert in search of the wild Bactrian camel.



John Hare, founder of the Wild Camel Protection Foundation, has made four expeditions to the Mongolian and Chinese Gobi deserts, and is the first foreigner recorded to have crossed the Gashun Gobi from north to south. Program code: ED98208L. Fee: \$12; \$10 members.

##### Plants at the Edge of the Sea

March 16 to April 6, 2:30 - 4:00 p.m.  
March 19 to April 9, 7:00 - 8:30 p.m.  
The seaweeds and flowering plants of our coastal dunes and wetlands stabilize the shore and are a key to marine productivity and biodiversity. This slide-illustrated series by William Schiller, lecturer in botany at the Museum, focuses on identification and ecology of tidepool algae and key plants of salt marsh, dune, and seaside forest border. Program code: ED98209L, 3/16-4/6 and ED982010L, 3/19-4/9. Fee: \$30; \$27 members.

##### Symbol of a Nation: The Changing Role of the Bald Eagle in American Culture

April 15, 7:00 - 8:30 p.m.  
Throughout our country's history, the bald eagle has been highly significant, not only as a spectacular biological species but also as a powerful icon in U.S. culture. Elizabeth Atwood Lawrence, professor of environmental studies at Tufts University School of Veterinary Medicine, will discuss the various ways in which the bald eagle has been perceived and treated throughout history. Program code: ED98211L. Fee: \$35; \$31.50 members (note: fee is for all 5 lectures in the series).

##### Wild Horses, History, and Race Relations in the 20th Century West

April 22, 7:00 - 8:30 p.m.  
An examination of the ongoing debates over the management of a herd of wild horses in North Dakota that some believe to be the descendants of Sitting Bull's war ponies. These conflicts are linked to broader sociocultural tensions, and to the ways in which humans classify animals to serve their own interests. Lecturer: Irene Casle McLaughlin, Hardy Fellow at the Peabody Museum of Archaeology and Ethnology. Program code: ED98211L. Fee: \$35; \$31.50 members (note: fee is for all 5 lectures in the series).

##### Macroevolution and the Transformation of Life

April 20, 7:00 - 8:30 p.m.  
Evolution is the transformation of life—the awesome journey from bacteria 4 billion years ago to *Homo sapiens* today. The descendants of one lineage of fish came ashore and rushed over the continents, eventually evolving into everything from turtles and dinosaurs to elephants and people. Equally remarkable is that one branch of these descendants crept back into the water and evolved into whales and dolphins. Carl Zimmer, senior editor at *Discover Magazine*, will discuss these twin cases of macroevolution. Program code: ED98212L. Fee: \$12; \$10 members.

#### Multicultural Programs

##### She Says

April 25, 2:00 and 4:00 p.m.  
Author Bara Caseley Swain returns to the Museum with a colorful collection of original monologues and scenes in celebration of today's women. Sign language for the hearing impaired will be provided. Location: Kaufmann Theater. For information call (212) 769-5186.

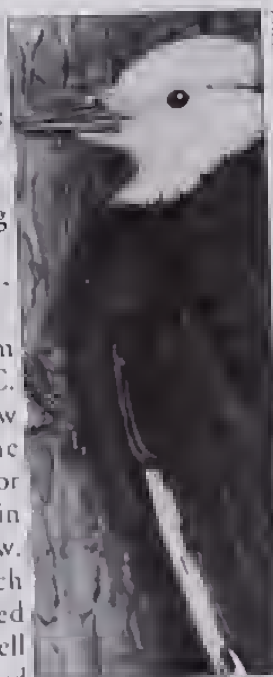
#### Workshops

##### Bird Photography

March 5, 7:00 - 9:00 p.m.  
The workshop is designed for those who wish to sharpen their photography skills. Topics will include photography ethics, exposure, lighting, composition, types of film and lenses, understanding bird behavior, and how to find your photo subject. Instructor John Heidecker's work has appeared in *Nature Conservancy, Birding and Birding World*. Class limited to 25. Program code: ED98303X. Fee: \$40.

##### Animal Drawing

March 10, 7:00 - 9:00 p.m.  
Join Museum artist Stephen C. Quinn and draw gazelles on the African plains or timber wolves in the snow. Students sketch from the famed dioramas as well as from mounted skeletons. Quinn, senior assistant manager of the Department of Exhibition, will discuss drawing technique, animal anatomy, and the role of the artist at the Museum. The class will run for eight weekly sessions and is limited to 25. Program code: ED98304X. Fee: \$125 (materials not included).



#### Children's Workshops

##### Digging Up the Past

April 5, 10:30 a.m. - 1:30 p.m.  
Children discover how fossils are found, and how they provide us with clues to the past. During the workshop,

children will excavate fossils from a "dig," visit fossil exhibits and dig sites, and make their own fossils. Presented by Lisa Breslof, senior natural science instructor in the Museum's Education Department. Ages 9 & 10. Program code: ED98400C. Fee: \$15.

##### My First Nature Book

April 5, 10:30 a.m. - 1:30 p.m.  
Children will visit museum exhibits to create storyboards about urban animals and their habitats, and learn how to bind and make original accordion books. Presented by Bonita Grandal, teacher and facilitator for New York State Project Wild. Ages 8 & 9. Program code: ED98404C. Fee: \$15.



##### A First Look at Chinese Brush Painting

April 19, 10:30 a.m. - 1:30 p.m.  
Capture the spirit of nature with brush and ink. Children will examine trees, plants, and rocks in the Museum's landscape paintings while learning the techniques and basics of Chinese calligraphy. Presented by Ross Lewis, artist and children's art educator. Ages 9 & 10. Program code: ED98402C. Fee: \$15.

##### Fun With Fossils

April 19, 10:30 a.m. - 1:30 p.m.  
Discover how woolly mammoth teeth provide clues to animal behavior. Children will examine fossil reproductions and real tooth specimens to uncover eating, hunting, and living behavior. Children will create a museum mammoth tooth reproduction and visit Early Mammals and Dinosaur Halls. Presented by Pamela Popeson, artist and former director of the Museum's Fossil Reproduction Department. Ages 8 & 9. Program code: ED98403C. Fee: \$15.

\*\*Children should bring a bag lunch for three-hour programs.

#### Hayden Planetarium Lectures

**Return to the Center of the Universe**  
March 9, 7:30 p.m.  
Nearly 400 years ago, Nicolaus Copernicus revived a notion of the ancient Greek astronomer Aristarchus of Samos that the earth orbits the sun, and not the other way around as was then the popular conception. This was a revolution in its own right, but really just the beginning. At the end of the twentieth century, we find ourselves in



a universe so vast and powerful as to test the powers of the imagination. Lecturer: Alan Dressler, Carnegie Observatories, Pasadena, California. Program code: HP113L. Fee: \$8; \$7 members

### Hayden Planetarium Courses

#### Introduction to Astronomy

March 23, 6:30 - 8:40 p.m.  
The course is designed to introduce the universe to people with no background in astronomy, mathematics or physics. Topics to be covered include earth as a planet, the moon, solar system, stars, the Milky Way, galaxies, quasars, and black holes. Instructor: Craig Small. The class will run for eight weekly sessions. Program code: HP3. Fee: \$95

#### How to Use a Telescope

March 23, 6:30 - 8:40 p.m.  
An introduction on how to choose and use a small amateur telescope. The course will cover the basic optics of telescopes, equatorial and alt-azimuth mountings, eyepieces, collimating a telescope, preparing for observation, locating objects in the sky, and using charts and other aids for observation. No previous knowledge of astronomy is required. Instructor: Samuel Storch. The class will run for eight weekly sessions. Program code: HP5. Fee: \$95.

#### The Life Cycle of Stars

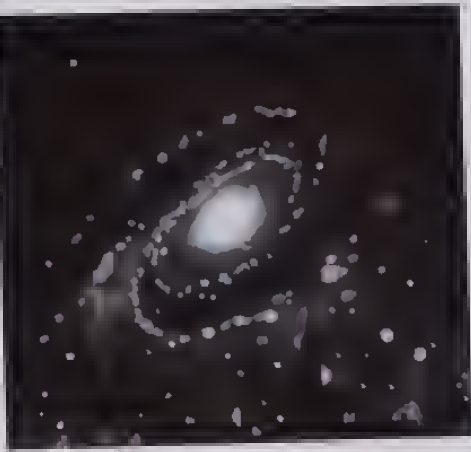
March 25, 6:30 - 8:40 p.m.  
Probing beneath the glowing exteriors of stars to examine their energy-producing cores, this course will trace the past and future histories of the sun and other stars found in the dust lanes and gas clouds of the Milky Way. Instructor: Sune Engelbrektson. The class will run for six weekly sessions. Program code: HP19. Fee: \$70

#### Adventures in Astronomy

March 28, 10:00 a.m. - 12:00 p.m.  
An introductory course for the entire family. Participants will learn about the birth and death of stars, the origins of the universe, the search for extraterrestrial life, and the night sky. Instruction will include the use of laboratories and astronomical equipment. Instructor: Craig Small. The class will run for seven weekly sessions. Program Code: HP14. Fee: \$85

#### From Copernicus to Einstein

March 25, 6:30 - 8:40 p.m.  
A survey of four theories that have brought about revolutionary change in astronomy and physics: Copernicus's astronomy; Galileo's physics and astronomy; Newton's physics; and Einstein's relativity of time and space. No formal training in physics or math is required. Instructor: William Dorsey. The class will run for seven weekly sessions. Program code: HP18. Fee: \$85



#### The New Solar System

March 26, 6:30 - 8:40 p.m.  
This course will investigate planets as individual, unique bodies and as elements of the solar system. The class Introduction to Astronomy is recommended but not required. Instructor: Francine Jackson. The class will run for eight weekly sessions. Program code: HP19. Fee: \$95

#### Archeoastronomy

March 24, 6:30 - 8:40 p.m.  
This course will examine the growing awareness by humans of the universe around them from prehistoric times through the Egyptian pyramids and Stonehenge. Instructor: John Beatty. The class will run for six weekly sessions. Program code: HP23. Fee: \$70

#### Weather and Climate

March 26, 6:30 - 8:40 p.m.  
This course will explore the atmosphere, including its structure, motions, and circulation. Discussions will also focus on climate, clouds, and aspects of weather forecasting. No formal training in math or physics is required. Instructor: Barry Grossman. The class will run for eight weekly sessions. Program code: HP25. Fee: \$95

#### Ground School for Private, Commercial and Instrument Pilots

March 24, 6:30 - 9:00 p.m.  
The course is designed to provide preparation for the private pilot and commercial pilot FAA written examinations as well as the FAA written examination for instrument ratings. Subjects to be covered include the latest airspace designations, visual and electronic navigation instruments, computers, aerodynamics, engine and propeller operations, communications, regulations, and safety. Students will plan cross-country trips and use the flight-deck simulator. Instructor: Ted Cone, FAA certified. Class will meet twice a week for a total of 15 classes and includes an optional trip to tower and center. Program code: HP29. Fee: \$200

## Center for Biodiversity and Conservation Spring Symposium

Why do sharks rarely develop tumors or infections, and how might humans benefit from studying shark immune systems?

Can the mechanisms that allow bears to hibernate without suffering bone loss or kidney failure lead to effective treatments for osteoporosis and renal failure in humans?

What promises do toxins from tropical poison frogs hold for developing new pain killers?

How did degradation of African rainforests contribute to the emergence of HIV (human immunodeficiency virus)?

These questions and many others will be addressed in this two-day symposium exploring the importance of biodiversity for human health. We all depend on biodiversity—the variety of living things at all levels, from genetic diversity to species and ecosystems. Plant, animal, and microbial species provide models for medical research and sources of new medicines. Protection of ecosystems not only helps to ensure the survival of these species, but is a factor in controlling the emergence and spread of infectious diseases, and maintains the quantity and quality of our air, food, and water supply.

An international cadre of scientists, environmentalists, physicians, and representatives of the pharmaceutical industry will discuss proven and potential applications of natural sources benefiting human health. Those interested in these issues are encouraged to attend. The symposium is open to the public.

This symposium is sponsored by the Museum's Center for Biodiversity and Conservation, Harvard Medical School's Center for Health and the Global Environment, and the United Nations Environment Programme.

For information, including a schedule and fees, please visit our website <http://research.amnh.org/biodiversity/> or call Central Reservations at (212)-769-5200. The Symposium will be held on April 17 & 18.

Program Code: CBC98SS



Tropical poison frog

## Titanica

### Imax Film Sheds New Light on the Legendary Shipwreck

Now screening at the Museum's Imax theater, the spectacular *Titanica* promises to take audiences on a once-in-a-lifetime adventure discovery to the site of the world's most famous shipwreck.

The R.M.S. *Titanic*, the largest and most luxurious liner ever built, was described as "unsinkable"; however, during its maiden voyage on April 15, 1912, the *Titanic* collided with an iceberg and sank to the bottom of the sea, claiming 1,502 lives. In 1985, the wreck was discovered at a depth of 12,500 feet, and in 1991, more than eighty years after the disaster, an American-Canadian-Russian expedition set out to explore the shipwreck and to conduct scientific research.

In *Titanica*, award-winning film director Stephen Low interweaves the dramatic story of this modern-day expedition with the tragic events surrounding the sinking of the vessel. Startling, eerie images of the *Titanic* on the ocean floor are contrasted with archival photographs of the ship taken in 1912, before the fateful voyage. Juxtaposed with these images are the touching and eloquent comments of Eva Hart, the only living survivor of the disaster at the time the film was shot. Ms. Hart, who was seven at the time of the shipwreck and passed away in 1996, lost her father in the tragedy.

Working from Russia's Akademik Keldysh, the largest research vessel in the world, an expedition team comprising Russian and Canadian scientists and American technicians was able to film—using specially designed high-intensity underwater lights—large expanses of the wreckage. Audiences are able to view the ghastly scene in extraordinary detail, with haunting close-ups of beautiful brass objects, stacks of plates, a pair of worker's boots, and the captain's bedroom, with its bathtub still intact.

Scientists who participated in the expedition also used the *Titanic* as a time gauge to measure environmental processes in the deep sea.

Continued on page 7



Eva Hart at age 7, with her parents Benjamin and Esther Hart







Continued from page 1

one altered by natural forces, and, ultimately, degraded by human intervention. This experience will offer a closer look at the complex relationship between humans and nature that has such a profound impact on our environment.

To create this remarkable installation (at approximately 16 feet high, 15 feet wide, and 90 feet long, the diorama will be one of the largest in the world), the Museum sent a team of ornithologists, mammalogists, exhibition preparators and designers, and audio-visual technicians on a five-week expedition to the Dzanga-Sangha Rainforest to collect specimens, make molds and casts, shoot photographs and video, and conduct interviews. Nearly 130 species of leaves, plants, and trees were documented and preserved. Some of the specimens collected—woody material such as small trees, vines, and branches—will be treated and used in the diorama; larger trees will be re-created using molds of bark made on-site.

One of the more painstaking aspects of reconstructing the rainforest is the creation, trimming, painting, and placement of over 300,000 leaves used in the diorama. Exhibition assistant Crystal Lee, who is organizing the production of the plant materials, comments that not only is each leaf being placed on the branches "one by one," but many of the leaves will also have "distinctive features, including dark or silvery shading, insect damage, and curled shapes to signify wilting."

Adjacent to the rainforest diorama

will be a dramatic multiscreen video installation providing visitors with information on nine distinct habitats from around the globe, including the status of peril and preservation of each environment.



Preparation of leaves for the rainforest diorama

The other two main components of the exhibition, an introduction area and a resource center, will present visitors with examples of what can and is being done to conserve biodiversity. Positioned between the Rainforest and The Spectrum of Life, the introduction area will integrate both the ecological and evolutionary aspects of biodiversity. Serving as the "nerve center" of the Hall, the introduction area will put forward four basic points: what biodiversity is, why it is so important to humanity, the threats it faces, and what can be done to preserve it. In the resource center, ten computer stations will provide interactive ways for users to learn how everyday decisions affect biodiversity. Simulated environmental dilemmas, examples of successful conservation projects, information on scientific and conservation organizations, an annotated bibliography, and a Bio-Bulletin presenting current biodiversity issues will provide the tools and inspiration for visitors to take action to conserve biodiversity.

Continued from page 5

#### Navigation in Coastal Waters

March 24, 6:30 - 9:00 p.m.

An introductory course to piloting and dead reckoning of small boats. Class will provide practical chart work including compass bearings, fixes, buoys and lighthouses, the running fix, current vectors and tides, and the rules of the nautical road. No prerequisites are necessary; however, participants must purchase equipment. Instructor: Gregory Smith. The class will run for eight weekly sessions. Program code: HP34. Fee: \$110

#### Advanced Celestial Navigation

March 25, 6:30 - 8:40 p.m.

Subjects to be covered in this class include navigational astronomy, star identification, and computations for determining compass error and deviation at sea. There will be practice problems, including the solution of celestial line of position, latitude by meridian transit of celestial bodies, and latitude by observing Polaris. Prerequisite: Introduction to Celestial Navigation or equivalent experience accepted by the instructor. Instructor: Gregory Smith. The class will run for eight weekly sessions. Program code: HP37. Fee: \$95



The Titanic in dry dock during final preparations before her launching in early 1912

Continued from page 5

At depths of 12,500 feet, where the *Titanic* lies, the sea is not the inert void it is generally perceived to be. Indeed, twenty-eight species of animals and four species of fish inhabit the ship's remains. While both chemical and biological processes are corroding the *Titanic* at a substantial rate, the biological—bacteria metabolizing the iron, producing rusticles (shaped like icicles) that dangle from all parts of the ship—seems to be the more damaging factor. These processes and other data from the expedition will be the focus of future scientific research.

Imax uses the largest film frame in motion picture history—ten times the size of conventional 35mm and three times the size of standard 70mm—together with state-of-the-art sound systems and the most advanced film projector ever built. The images fill the Museum's four-story high movie screen, creating a stunning viewing experience.

*Titanica* will be shown daily through the end of April. For show times and ticket information, call the Museum at (212) 769-5200.



#### The 68th James Arthur Lecture on the Evolution of the Human Brain

Ian Tattersall, evolutionary biologist and curator in the Museum's Department of Anthropology, will deliver this year's James Arthur Lecture. Tattersall's presentation will be on the origin of human capacity. The lecture will explore human cognitive evolution and how the pattern of behavioral evolution we observe fits with the nature of the evolutionary process itself. This approach to understanding the evolution of human cognition, and hence, indirectly, of the brain itself, involves examining the archaeological record, which is the archive of human behavioral evolution. Evidently, human cognition, as we understand it today, is an "emergent" quality rather than an extrapolation of earlier trends in human evolution; an "exaptation" rather than an adaptation.

Tattersall has conducted extensive field work and laboratory investigation on various aspects of the history and biology of the lemurs of Madagascar; however, in recent years, his research has increasingly focused on human evolution. His central interest in paleoanthropology has involved the attempt to integrate the growing human fossil record with our understanding of how the evolutionary process works. Increasingly, Tattersall has been attracted by the question of human cognitive evolution, and he is particularly interested in reconciling the archaeological record of human behavioral evolution with what the fossils tell us about the physical evolution of our lineage.

The lecture will be held on March 24 at 6:00 p.m. in the Kaufmann Theater.

#### SET ASIDE A NEST EGG FOR YOUR FUTURE...



Artist recreation based on fossils of an oviraptor protecting its nest, discovered by AMNH scientists in the Gobi Desert in 1993. (Illustration by Mick Ellison for the AMNH)

AND PROVIDE FOR THE AMERICAN MUSEUM OF NATURAL HISTORY'S FUTURE



If you are age 55 or older, through a gift to the American Museum of Natural History that yields lifetime income, you can provide for your own retirement and set aside a future gift for the Museum's scientific and educational programs. With a gift of \$5,000 or more, you can

- receive income for life, for yourself and/or a loved one,
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For more information, please call (800) 453-5734 or complete and return this confidential reply form to the Office of Planned Giving, American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192.

- ☐ Please send me information on gifts that provide lifetime income  
☐ Please send me information on including a bequest to the Museum in my will  
☐ I have already included a provision for the Museum in my estate plans.

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Your reply is confidential and implies no obligation



# March 1998 American Museum of Natural History

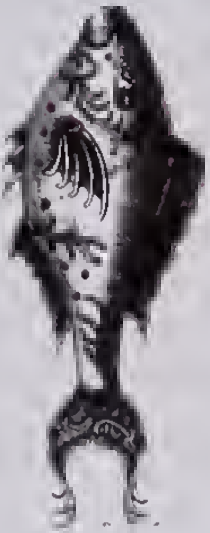
Mycological  
1:00 p.m.

2                      3                      4                      5                      6                      7  
The History of Everything  
Kaufmann Theater, 7:30 p.m.  
Professor Chris Impey will lecture  
on the origins of the universe.  
Program code: HP109L



Amateur Astronomers As-  
sociation of New York  
Kaufmann Theater,  
6:00 p.m.

8                      9                      10                      11                      12                      13                      14  
New York Shell Club  
Linder Theater, 2:00 p.m.



New York Mineralogical  
Club  
People Center, 5:30 p.m.



15                      16                      17                      18                      19                      20                      21  
New York Paleontological Society  
Room 319, 2:00 p.m.

New York Entomological  
Society  
People Center, 7:00 p.m.

Becoming Human  
Kaufmann Theater, 7:00 p.m.  
Ian Tattersall discusses his new  
book. Program code: MM1-03

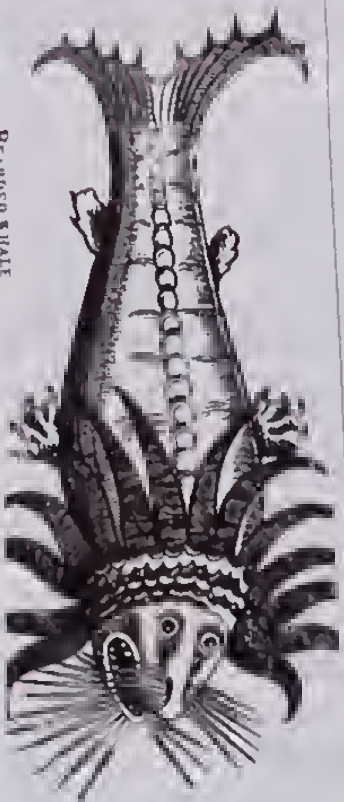
Basic Instinct  
Museum tour led by Robert Cam-  
panile. Program code: MM2-03,  
6:30 p.m.

22                      23                      24                      25                      26                      27                      28  
New York Turtle & Tortoise Society  
Room 319, 10:30 a.m.  
Five-Borough Bus Tour with Sidney  
Horenstein, 9:00 a.m. - 4:00 p.m.  
Program code: MM3-03

Linnaean Society of New  
York  
People Center, 7:30 p.m.

The Discovery Room in the People  
Center, 12:00- 4:30 p.m.

29                      30                      31  
Museum Magic: Get a Grip.  
Free for children five and above.  
The Discovery Room in the Peo-  
ple Center, 2:00-4:30 p.m.



BEARDED WHALE



Library  
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# ROTUNDA

For Family/Dual and Higher Members of the American Museum of Natural History

Vol. 23, No. 4 April 1998

## Spirits in Steel: The Art of the Kalabari Masquerade

ESP Photography



Nigerian-born artist Sokari Douglas Camp

The effect of African art on 20th-century European art cannot be underestimated. Artists as divergent as Brancusi, Matisse, and Picasso were all seduced and fascinated by African masks and artifacts, seeing in them a potency, mystery, and emotional directness lacking in Western academic art. There has been a tendency, however, by Western artists and academics to overvalue the mask in relationship to other African artifacts. Moreover, there has been little attempt to understand its full significance within African culture, to read it as part of a whole, along with the costume, as one of the elements that makes up traditional masquerade. It has been, in part, a desire to redress this imbalance that has led sculptor Sokari Douglas Camp, born in Buguma, Eastern Nigeria, to return to her roots and create works about the masquerades of the Kalabari people of southeastern Nigeria.

In the exhibition *Spirits in Steel: The Art of the Kalabari Masquerade*, Camp's large steel sculptures return the mask to its rightful place within the drama and panoply of the living masquerade. The London-based Camp reinterprets what she says are the main issues of Kalabari masquerade: relationships between humans and

spirits and between men and women, and the power of the masquerade to transform art into a spiritual experience. As she stated when she began to construct her sculptures, "I decided to work with masks but from a female point of view, which is the view of an observer. Women in my part of Nigeria are not allowed to perform with masks, or touch them. I began my work by observing how masks are put on the masqueraders. How the human form is changed. How men become gods when they perform."

The thirteen sculptures in the exhibition emphasize the Kalabari festivals in celebration of the water spirits. The Kalahari people, who live in southeastern Nigeria, in the delta of the Niger River, periodically invite the water spirits to join them in celebrations and masquerades. West African coastal people see swamps and creeks as the home of spiritual beings that may form all kinds of relationships with human beings. The spirits—male, female, animal—take possession of men who don the masks and costumes belonging to them. The masqueraders then make their way through the town causing merriment, laughter, and sometimes arguments among the inhabitants.

Alagha, a female spirit who is usually

pregnant, and who wears a special leopard-skin cloak, appears only once every seventeen years. She is followed by Otobo, the hippo, by dancing fish, and

by bird spirits. Sikibo, a man in a top hat and waistcoat, leads the procession, keeping the unruly water spirits in line and keeping onlookers a safe distance away.

Camp's full-scale representations of different masquerades are a masterful manipulation of metal and other artistic materials, including paint, cloth, and wood. Large headpieces, masks, and costumes are assembled upon an openwork scaffolding of metal and wire with no interior. One of the most compelling aspects

of Camp's sculptures is the sensibility of movement and rhythm that makes each piece appear to be on the verge of action. One of her more playful masquerades, "Two Copulating Fish," with its bent legs denoting the hopping gait of a dancer, beautifully captures this profound sense of kinesis. When discussing the elements of her work, Camp remarks that "The way I remember seeing masks/masqueraders when they performed for my town is the masquerades are alive and frightening and beautiful when they move."

Edicated in the west, Camp integrates a sophisticated aesthetic—a knowledge of other sculptors working in metal, such as Anthony Caro or Richard Serra—alongside a visceral empathy for the imagery of her own culture. Drawing on the visual fragments from her own traditions—the costumes of the Kalabari dancers, boats, fish, and birds—she works her subjects into creations that are idiosyncratically her own while simultaneously reflecting the sculptural concerns of the Modernist tradition.

*Spirits in Steel* grew out of a previous show entitled *Play and Display: Steel Masquerades from Top to Toe*, which was part of a series of exhibitions on contemporary African art organized by a number of

Continued on page 7



"Sikibo," one of Sokari Douglas Camp's masquerade sculptures



## Members' Programs



### The Natural Art of Printmaking: Making Prints from Nature

May 3, 1:00–4:00 p.m.

In celebration of the opening of the Museum's new Hall of Biodiversity, the Membership Department is sponsoring a workshop on the Japanese printmaking technique known as *gyotaku*. Originally used for recording different species of fish, *gyotaku* (literally, "fish rubbing") produces both scientific illustrations and sublime art prints.

Using a variety of papers and inks and paints, participants will make prints of natural objects utilizing casts of animal footprints, geological imprints of glacial scarring, botanical specimens, starfish, shells, fish, and other marine creatures. Participants will also make a multiple-image print on rice paper.

The workshop will be conducted by Pamela Popeson, artist and former director of the Museum's Fossil Reproduction Department. The class will be held in the Edith C. Blum Lecture Room. Program code: MM 4-5. Fee: \$32; \$28 members.

### Sharing the Night Sky

April 23, 7:00–9:00 p.m.

One of the world's foremost amateur astronomers, David H. Levy, co-discoverer of the Shoemaker-Levy 9 comet, will explore the splendors of the night sky through a multimedia presentation using poetry, music, slides, and video. During his lecture, Levy will discuss, among other things, the world of comets and asteroids, methods of identifying the constellations, and how to observe the sun safely. Immediately following the discussion, Levy will be on hand to sign copies of his latest publication, *Sharing the Sky: A Parent's and Teacher's Guide to Astronomy*.

Sharing the Night Sky is a joint presentation by the Membership Department and the Hayden Planetarium. The lecture will be held in the Main Auditorium. Program code: MM-1. Fee: \$10; \$8 members.



### The Science of Godzilla

May 16, 2:00–4:30 p.m.

With recent water main breaks, building bricks falling on our heads, and whole buildings literally collapsing, it is only fitting that when the new *Godzilla* film arrives in New York on Memorial Day weekend, we should fear that the monster

may demolish the city once and for all. Don't worry, as in 1954, when he destroyed Tokyo, the city will most likely be rebuilt!

Few movie monsters enjoy as much notoriety as Godzilla. To many, he is basically a dinosaur, but to paleontologists, very little about Godzilla is dinosaurian. Mark Norell, chairman and associate curator of the Museum's Department of Vertebrate Paleontology, will attempt to cast the legendary beast in a scientific light, providing an educational as well as humorous presentation. Following the discussion, enjoy a free screening of the original *Godzilla, King of the Monsters* (1954). Robert "Bobzilla" Campanile will host this special Godzilla program.

The screening and lecture will be held in the Kaufmann Theater. Program code: MM 1-5. Fee: \$10; \$8 members.

Godzilla, King of the Monsters (1954)



### Roosevelt Island and Beyond

May 30, 9:00–11:00 a.m. & 12:00–2:00 p.m.

Geologist Sidney Horenstein, coordinator of the Museum's Environmental Programs, will conduct two trips to Roosevelt Island. Tour participants will learn about the geological history of the island, the origin of the East River, and the story behind the island's remaining 19th-century buildings, including the restored Blackwell House.

Program code: MM 3-5. Fee: \$25; \$20 members.



own fossil replica.

Pamela Popeson, artist and former director of the Museum's Fossil Reproduction Department, will conduct the workshop. All materials used are non-toxic and washable; however, art clothes are advised. This workshop is for ages 6–11. Location: Edith C. Blum Lecture Room. Program code: MM 5-5. Fee: \$25; \$20 members.

### SAVE THE DATE

MEMBERS' PREVIEW PARTY  
HALL OF BIODIVERSITY

Friday, May 29  
5:30 to 8:30 p.m.

Present your Membership card  
for admission  
Cash bar available

### The Biodiversity of Sandy Hook, N.J.

May 14, 9:00 a.m.–5:00 p.m.

Join naturalist and artist John Quinn to explore the diverse habitats of dunes, tidal ponds, and holly forests of Sandy Hook, N.J. Once at Sandy Hook, a National Park Service Ranger will give a talk on the history of this unique coastal area. Afterward, during the day's hike, Quinn will discuss the ecology of freshwater ponds and seine for examples of marine life in Horseshoe Cove. There will also be a private tour of the holly forest with a Ranger.

Wear comfortable clothing and bring your lunch and binoculars to look for nesting osprey that inhabit the Hook. The bus will leave from the Museum. Program code: MM 2-5. Fee: \$65; \$60 members.

## ROTUNDA

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## Indigenous People's Celebration

In recognition of the extraordinary cultural heritage of indigenous people, the Museum is offering several noteworthy programs over three weekends in April. The events will highlight the traditions and customs of groups from Siberia to Mexico in the fields of theater, film, music, dance, and art.

### April 4 & 5

Video: *Summer in Siberia* (1998), 30 min.

Producers: Tom Lee and Yara Arts Group

1:00 p.m.

*Summer in Siberia* documents the cultural research trip taken by the Yara Arts Group of New York to the rural communities of the Anginsk-Buryat Region of Siberia. The video follows the group as they meet with singers, folk ensembles, storytellers, and musicians.

### Buryat Mongolians of Siberia

2:00 p.m. & 3:30 p.m.

Viilana Tkacz will discuss the collaborative theater project of the Yara Arts Group and the Buryat National Theatre, as well as the traditions of the Buryat Mongolians of Siberia. The talk will be illustrated with slides from the project.

### Traditional Buryat Music

2:30 p.m. & 4:00 p.m.

Three artists from the Buryat National Theatre, Erzhena Zhambalov, Sayan Zhambalov, and Erdeny Zhaltsanov, will perform Buryat folk songs, including several different types of throat singing. Audience members will have the opportunity to view the use of traditional instruments, such as the *khomus*, a jaw harp, and the *morin khor* or "horse-head fiddle," a double-stringed instrument similar in sound to a cello.

### April 11 & 12

Videos: *The Spirit of TV* (1990), 18 min.;

*Video in the Villages* (1989), 10 min.;

*Signs Don't Speak* (1997), 27 min.

Director: Vincent Carelli

Producer: Centro de Trabalho Indigenista (CTI)

1:00 p.m.

*The Spirit of TV* documents the Waiapi Indians' first encounter with video and television. *Video in the Villages* provides a broad overview of the CTI project entitled "Video in the Villages," which furnishes economic, political, and legal support to the differing native tribes living in the Amazon. *Signs Don't Speak* portrays how the Waiapi Indians of northern Brazil have successfully expelled gold prospectors from their land and prevented further devastation of their territory.

### The Electronic Arrow

2:00 p.m. & 3:30 p.m.

Erica Worthham of the National Museum of the American Indian will talk about some of the ideas behind the creation of *The Spirit of TV*, *Video in the Villages*, and *Signs Don't Speak*.

### Piano and Drums

2:30 p.m. & 4:00 p.m.

Using European and African music, dance, and masks, Nigerian artist Esiaba Irobi will explore the conflicts that arise when Western traditions collide with indigenous cultures. Irobi's performance is an exciting, funny, bittersweet, and sometimes painful solo work. Irobi is currently a visiting scholar in New York University's Department of Performance Studies.

### April 18 & 19

Video: *Kumbharwada* (1996), 19 min.

Director: Rajul Mehta

1:00 p.m.

*Kumbharwada* portrays life in a potters' colony in Dharavi, India, one of Asia's largest slums. Director Rajul Mehta will be on hand after the screening to discuss the film.

### Nepali by Heart

2:00 p.m. & 4:00 p.m.

1998 has been deemed the "Year of Nepal" by the Nepalese government. Sherry Onna Handlin, director of Facing East projects, will lead a discussion on the culture, life, and landscape of Nepal. A slide show will accompany the talk.

### Songs and Dances of Nepal

2:30 p.m. & 4:00 p.m.

Raj Kapoor and his ensemble will perform traditional music and dances from Nepal, including pieces from marriage ceremonies, harvests, and festivals.

These programs are free with Museum admission and do not require a ticket. All seating is limited and is on a first-come, first-served basis. For further information, call the Museum's Department of Education at (212) 769-5315 between 9:00 a.m. and 5:00 p.m., weekdays.



Shisir Shresta, Nepali tungna player

## Africa: Explorations and Expeditions

The interior of the African continent was one of the last, great unexplored areas of the world. Although the Arabs and the Portuguese had established trading posts along the coasts, much of Africa remained virtually unexplored by Europeans until the end of the 18th century. Disease, extremes of climate, difficult terrain, as well as fear and superstition had kept the heart of this so-called "dark continent" a mystery. The first Europeans to make forays into the interior were traders trafficking in slaves, gold, and ivory; missionaries seeking converts to Christianity; and explorers tracing the course of the four great rivers of Africa: the Nile, the Niger, the Congo, and the Zambezi.

The exhibition *Africa: Explorations and Expeditions* focuses on the European exploration of the African continent beginning in the 18th century. Curated by Roscoe Thompson, assistant director for Library Services, it features rare books, field notebooks, photographs, sketches, illustrations of fauna, specimens, and artifacts from the Museum's African expeditions. These include Henry Fairfield Osborn's expedition in 1906 to Egypt's Fayum Desert to excavate fossil elephants; the Museum's Congo expedition (1909-1915) to search for the okapi, an elusive forest animal similar to the giraffe; Carl Akeley's expeditions to East Africa to collect materials for the Museum's African Hall; and John Morden's expedition to northern Kenya to study the Turkana people.

Among the books on view is one volume of the monumental ten-volume folio *Description de l'Égypte*, published between 1809 and 1828. Conceived by Napoleon Bonaparte during his army's occupation of Egypt from 1798 to 1801, *Description de l'Égypte* represents the first systematic investigation of any part of the continent. Other publications in the exhibition include first-hand accounts by such figures as James Bruce, a Scotsman who searched for the Blue Nile, 1768-72; Mungo Park, the first man to explore the Niger River, 1795-97; Richard and John Lander, brothers who determined that the Niger emptied into the Bight of Benin; John Hanning Speke, a young army officer who discovered that Lake Victoria was the source of the White Nile; and Henry Morton Stanley, the African explorer who "found" David Livingstone.

The exhibition is on view in the Library Gallery through August 1998.



Mangbetu woman wearing hatpins, AMNH Congo expedition 1909-1915.

## Heavenly Knowledge

Fiorella Terenzi, Italian astrophysicist, musician, and author, will present an extraordinary multimedia lecture and performance on her pioneering work in "acoustic astronomy." Terenzi will explain how radio waves are captured from distant galaxies, compare cosmic waves and musical notes, and discuss how cosmic waves are transformed into sound. Her presentation will include a demonstration of the radio-astronomical sounds featured on her CD, *Music From the Galaxies*, clips from her CD-ROM, *Invisible Universe*, and computer graphic videos and music from her video collaboration with Thomas Dolby entitled, *The Gate to the Mind's Eye*.

Once described as a "cross between Carl Sagan and Madonna," Terenzi holds a doctorate in physics from the University of Milan with a specialization in astrophysics and radio astronomy. She also studied operatic singing at the Conservatorio di Musica Verdi. Her research was conducted at the University of California, San Diego, Computer Audio Research laboratory, where she developed the



Fiorella Terenzi

first experiment translating radio waves from space into sound for scientific study. After successfully capturing radio waves from UGC6697, a distant galaxy 180 million light-years away, Terenzi spent a year transforming the galactic sounds into musical notes. Creating actual music was a labor of love; each second of sound took eight or nine hours to produce, she said. According to Terenzi, the galaxies are tuned to "about B-flat and D-flat," and they "sing in harmony," even though that harmony can be difficult to translate.

"Sometimes I have to make thousands of combinations of galactic notes," Terenzi explains, "until I find the one that respects the galactic background. Because with all the notes that come out from the galaxy, you can really mess up!"

Continued on page 7



## Department of Education

### John Burroughs Program

#### Slabsides Day

May 16, 12:00 noon

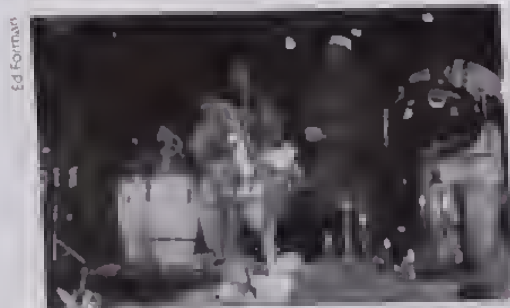
Join the friends of the John Burroughs Association for an open house at the Slabsides Museum, formerly the cabin of naturalist-writer John Burroughs (1837-1921). Built in 1895, the rustic retreat served as a place where Burroughs could write, study nature, and entertain friends. Designated a National Historic Landmark in 1968, the cabin is preserved today much as Burroughs left it. For further information about the event, call (212) 769-5169.

### Special Events

#### Spirit Ensemble: the Music and Dance of the African World

May 4, 6:30 p.m.

In celebration of the opening of the exhibition *Spirits in Steel: The Art of the Kalabari Masquerade*, the Museum will present the highly acclaimed music group, Spirit Ensemble. Led by musician and composer Jimmy Cruz, Spirit Ensemble will perform the music of Africa and the Caribbean using a variety of percussion instruments, including the steel pan from Trinidad, timbales from Cuba, and shekeres and kalimbas from Africa. There will also be a spectacular display of silk walking by members of the dance troupe Messages From Our Ancestors. It is an event not to be missed, so bring your family and friends and spend the evening dancing to the Afro-Caribbean rhythms of Spirit Ensemble. Program code: ED98219L. Fee: \$10 adults, \$5 children; for members, \$9 adults, \$4 children. For reservations, call (212) 769-5200.



Spirit Ensemble

#### Wonders of New York

In recognition of the 100th anniversary of the founding of Greater New York, the Museum is sponsoring the following five-part lecture series, from May 5 to June 2. All lectures will be presented by Sidney Horenstein, coordinator of the Museum's Environmental Programs. The fee for the series is \$40; \$36 for members. Individual lectures are \$12 each; \$10 for members.

#### New York's Water Crisis

May 5, 7:00-8:30 p.m.

This slide-illustrated discussion will focus on the events that led up to New York's water-supply problems at the turn of the century, the solutions that were devised, and how the city's water supply system, one of the world's greatest engineering feats, operates today. Program code: ED98215L.

#### Geology and Geography: A One-Billion-Year Odyssey

May 12, 7:00-8:30 p.m.

In 1902, the first modern comprehensive geological study of New York City was published. The study remained the governing authority on the subject until this past decade, when several new geological studies were conducted. This lecture will focus on the information uncovered by these new studies and how they provide us with a better understanding of the City's geological history. Program code: ED98215L.

#### Plants of the City

May 19, 7:00-8:30 p.m.



New York City's deciduous forest came into being approximately 6,000 years ago. Although most of the forest has since disappeared, and new species of flora have been introduced from other regions, much of the original flora still exists. In this lecture, Horenstein will explain why so much of New York's forest plants are related to various Asian species. Program code: ED98215L.

#### New York Animals

May 26, 7:00-8:30 p.m.

Many plants and animals disappeared from New York when non-indigenous species were introduced into the environment. This slide-illustrated talk will examine the changes in New York's biodiversity from the 18th-century up to the present day. Program code: ED98215L.

#### Animals of the Bays, Rivers, and Shoreline

June 2, 7:00-8:30 p.m.

By 1898, landfill had altered a great deal of the city's shoreline, killing off much of New York's marine life, such as the oyster. Today, with increased restrictions on the release of effluents into the city's waterways, there is a visible increase in species returning to live in the Hudson River. This lecture will present the history of marine life in New York's waterways. Program code: ED98215L.

### Lectures

#### Ethiopia: Landscape and Environment

May 7, 7:00-8:30 p.m.

Ethiopia is a country of great cultural and geographic complexity and diversity. In this slide-illustrated lecture, British writer and traveler Michael Street will examine two areas of environmental significance there: the Simien Mountain National Park, a World Heritage site, and a stretch of forest located on the eastern shore of Lake Langano in the Rift Valley—an isolated refuge for over 300 species of birds and two dozen mammals. Program code: ED98215L. Fee: \$12; \$10 members.

#### A Madagascar Treasure: Conserving the Rainforest and Its Inhabitants

May 7, 7:00-8:30 p.m.

Patricia Wright will discuss her efforts to study and protect Madagascar's lemurs, and her participation in the creation of a park and integrated conservation development project on the island. Wright is a professor of anthropology at the State University of New York, Stony Brook, and director of the Institute for the Conservation of Tropical Environments in Tana. Program code: ED98203L. Fee: \$12; \$10 members.

#### First Contact with the Korubo of the Brazilian Amazon

May 11, 7:00-8:30 p.m.

French journalists Nicolas Reynard and Claudie Baran will describe their experiences on a 1996 expedition into Brazil's Vale do Javari region, where contact with the elusive Korubo tribe was made for the first time. They will also speak about their ten-year relationship with FUNAI, the Brazilian Ministry for the Protection of Indian Tribes, and about specialist Sydney Possuelo, chief of the Brazilian government's Bureau of Isolated Tribes. The presentation will be accompanied by slide illustrations and digital recordings. Program code: ED98216L. Fee: \$12; \$10 members.

#### Slanted Truths in Science: Gaia, Symbiosis, and the Evolution of Biodiversity

Lynn Margulis and Dorion Sagan, co-authors of *Slanted Truths: Essays on Gaia, Symbiosis and Evolution*, will present two lectures on May 21 and 28. The fee for both lectures is \$18; \$16 members.

#### Slanted Truths in Science

May 21,

7:00-8:30 p.m.

Lynn Margulis will discuss, among other things, biodiversity and the Gaia hypothesis. The presentation will be accompanied by slides and video clips. Program code: ED98217L.

#### You are God: Energy, Free Will, and Darwinian Medicine

May 28, 7:00-8:30 p.m.

Dorion Sagan will read from *Slanted Truths: Essays on Gaia, Symbiosis and Evolution* and from his book *What is Life?* Program code: ED98217L.

### Multicultural Programs

#### Asian Children's Film Fest '98

May 2 & 3

The Asian Children's Film Fest '98 will feature works depicting the lives and experiences of children from various cultures throughout Asia. The films will be screened in the Kaufmann Theater. This program is co-sponsored by the Museum's Department of Education and the Indian Advisory Board of the Queens Child Guidance Center. For schedule information, call (212) 769-5315.

#### Masks with Clothes

May 15, 7:00-8:30 p.m.

Join artist Sokari Douglas Camp in a discussion about her work and the exhibition, *Spirits in Steel: the Art of the Kalabari Masquerade*. Camp's thirteen life-size steel sculptures were inspired by the masquerades of the Kalabari people of southeastern Nigeria. Using slides and video clips, Camp will talk about the different elements that inform her work. Location: Kaufmann Theater. For further information, call (212) 769-5315.



"Dandy Masquerade"

### Workshops

#### Identification Day

May 9, 1:00-4:30

Bring your shells, rocks, insects, feathers, bones, and artifacts for our twelfth annual Identification Day. Museum scientists will attempt to identify and analyze your favorite garage-sale finds, curios from the basement, exotic souvenirs, and flea-market discoveries of natural objects. The Museum will not identify gemstones. Location: Birds of the World Hall, 2nd Floor. For further information, call (212) 769-5176.

### Walking Tours

#### Spring Flowers and Trees in Central Park

May 2, 8:30-11:00 a.m.

A morning walk in Central Park to observe the botanical signs of spring. Participants will learn about plant identification and ecology as they explore the park's Shakespeare Garden, Henshead, and Strawberry Fields. William Schiller, lecturer in botany in the Museum's Department of Education, will lead the excursion. Program code: ED98310X. Fee: \$12; \$10 members. Limited to 25.

#### Van Cortlandt Lake, Van Cortlandt Park

May 9, 10:00 a.m.-1:00 p.m.

A walk through the wooded wetland surrounding Tibbett's Brook. Guide: William Schiller. Program code: ED98313X. Fee: \$12; \$10 members. Limited to 25.

### Field Trips

#### Whale Watch

May 15-17

This weekend event includes a visit to Mystic Seaport; a four-hour, privately chartered cruise with prominent cetologists and naturalists onboard to lead discussions; a guided walk through the Massachusetts Audubon Society's Wellfleet Bay Wildlife Sanctuary; and a stopover in Provincetown. Naturalists Jay Holmes and Uta Gore will conduct the trip. Program code: ED98331X. Fee: \$450. For information, call (212) 769-5200.



## Program Listings

### Children's Workshops

#### A Child's Look at Wildflowers

April 26, 10:30 a.m.—12:00 p.m.  
Children will learn how artists and scientists re-create plants and flowers for the Museum's exhibitions. Afterward, children will create a field book applying different methods of flower preservation. Presented by Amy O'Donnell, senior natural science instructor in the Museum's Department of Education. Ages 8 & 9. Program code: ED98401C. Fee: \$10.

#### Kitchen Chemistry

May 3, 10:30 a.m.—1:30 p.m.  
As they learn about different fields of science, children will conduct experiments, such as creating an exploding volcano, turning milk into glue, and making invisible ink from red cabbage. Presented by Jennifer Kahn, an instructor at the New York Aquarium for Wildlife Conservation. Ages 7 & 8. Program code: ED98405C. Fee: \$15.

#### Undersea Surprise

May 3, 10:30 a.m.—12:00 p.m.  
Using specimens and Museum hall exhibits, children will learn about the Loch Ness "monster," giant squid, and sea creatures. A visit to the Hall of Ocean Life and a take-home art project is also part of the program. Presented by Lisa Bresloff, senior natural science instructor in the Museum's Department of Education. Ages 6 & 7. Program code: ED98406C. Fee: \$10.



#### A Masked Ball

May 17, 10:30 a.m.—1:30 p.m.  
Children will learn about the varied meanings and uses of masks in different cultures. There will be visits to the Museum's Hall of African People and the Hall of Asian People. Children will create their own mask wall-hangings. Presented by Melanie Reim, illustrator, printmaker, and adjunct professor at the Fashion Institute of Technology. Ages 7 to 9. Program code: ED9840C. Fee: \$15.

#### Drawing and Painting African Mammals

May 17, 10:30 a.m.—1:30 p.m.  
Children will be taught basic pen-and-ink, watercolor, and contour drawing techniques while sketching in the Hall of African Mammals. Presented by Angela Tripi Weiss, art director at Public School 87 in Manhattan. Ages 8 to 9. Program code: ED98408C. Fee: \$15.

#### Wonderful Whales

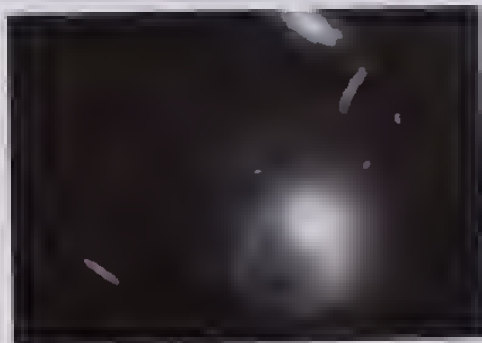
May 17, 10:30 a.m.—1:30 p.m.  
Through film, songs, games, artifacts, and a visit to the Museum's Hall of Ocean Life, children will learn about the natural history of whales. Presented by Merryl Kafka, assistant director of education at the New York Aquarium for Wildlife Conservation. Ages 8 & 9. Program code: ED98409C. Fee: \$15.

\*\*Children should bring a bag lunch for three-hour programs.

### Hayden Planetarium Lectures

#### Galaxies Faint and Fuzzy

April 6, 7:30 p.m.  
Julianne Dalcanton, Hubble Fellow, Observatories of the Carnegie Institution of Washington. Program code: HP110L. Fee: \$8; \$7 members.



#### The Universe with X-Ray Eyes

May 4, 7:30 p.m.  
Paul Hertz, Office of Space Science, NASA Headquarters and E.O. Hulburt Center for Space Research, Naval Research Laboratory. Program code: HP111L. Fee: \$8; \$7 members.

#### The Search for Life on Other Worlds

May 18, 7:30 p.m.  
Michael Lemonick, senior science writer, *Time* magazine. Program code: HP115L. Fee: \$8; \$7 members.

### Amazon

#### Imax® Film Emphasizes Conservation and Respect for Rainforests

This May, the Museum's Imax® theater will present the northeast-coast premiere of *Amazon*, a beautifully crafted docudrama about a region that has been the obsession of explorers, scientists, and anthropologists for decades. Shot in and around the Amazon basin, *Amazon* will take audiences on an extraordinary journey of discovery among the remarkable people, plant life, and animals that live along the world's greatest river.

The Amazon River is one of the mightiest waterways on earth. Together with its tributaries, the Amazon covers an area of more than two million square miles, supporting rainforests that are home to almost one-quarter of the world's known species of plants, 5,000 species of fish, hundreds of species of animals and insects, and several indigenous tribes.

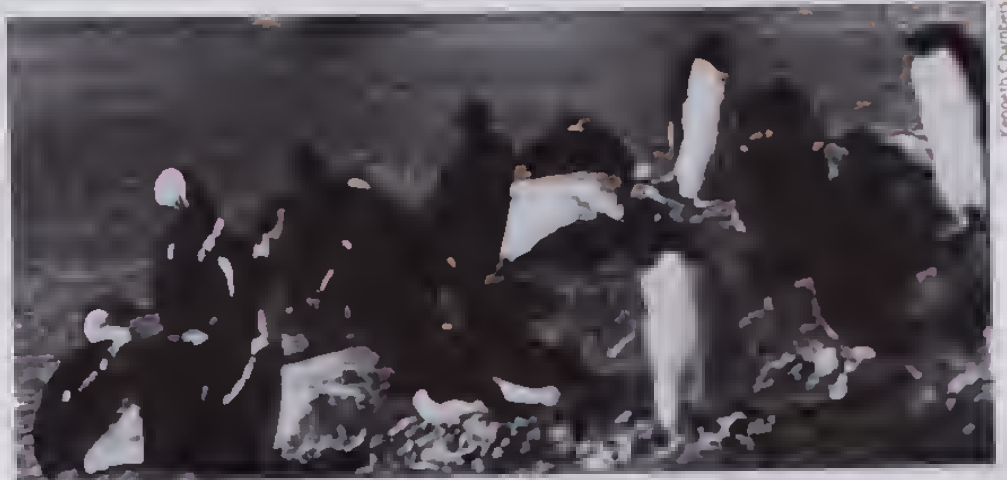
In *Amazon*, Academy Award-winning director Kieth Merrill interweaves the dramatic story of two "medicine men"—tribal shaman Mamani and American ethnobotanist Mark Plotkin—with a trip through the magnificent Amazon region. As the film follows the route of the powerful river, beginning at its source high in the Andes and continuing through rainforests across South America, viewers are introduced to an exotic menagerie of animals and fish, including jaguars, rapids, pipa toads, pink dolphins, electric eels, fura piranhas, and pirarucus—fish that can exceed six feet in length and weigh up to 300 pounds.

Amazingly, the *Amazon* production crew, with the help of Sydney Possuelo, chief of the Brazilian government's Bureau of Isolated Tribes, was able to capture on film the Zoe people, the sole inhabitants of an upland rainforest near the northern edge of the Amazon basin. The Zoe are perhaps the only intact tribe in the Americas who remain largely untouched by Western culture.

Notwithstanding the visual splendor of *Amazon*, the film also serves as an urgent reminder that the Amazon rainforest is a precious global resource that must be protected. As the movie follows Plotkin and Mamani in their quest to discover plants with medicinal properties, we learn about how plants native to the Amazon region may hold the key to cures for diseases not yet conquered. For example, we discover that the Amazon's blood tree is the source of the experimental drug Virend, which shows great promise as a treatment for herpes.

*Amazon* is both a celebration of the vitality and wonder of the Amazon region and an important message about the rare gifts the river and the rainforest can give to the world.

For information about screening dates for *Amazon*, call (212) 769-5200.



Penguins in the Arctic

### Life at the Ends of the Earth

In recognition of National Science and Technology Week (April 27–May 3), the Museum will present an exciting two-part lecture, "Life at the Ends of the Earth," presented by Kenneth A. Chambers, noted zoologist, author, and polar explorer. Chambers will discuss how advances in science and technology have enabled scientists to undertake research projects in the Arctic and Antarctic that were previously impossible. He will also talk about the impact these new field explorations have had on the terrain's indigenous wildlife and fragile environment.

Chambers, a former assistant chairman of the Museum's Department of Education, has led over thirty land tours and cruises to Alaska, the Arctic, and Antarctica. He has lectured extensively on topics such as wildlife, Alaska, and polar explorers. Chambers is the author of *A Country Lover's Guide to Wildlife: Mammals, Amphibians and Reptiles of the Northeastern United States*. He has also published articles in several journals, including *National Parks*, *The Curator*, and *The Conservationist*.

The first lecture, "The World of the Polar Bear," will be held on April 23 from 7:00 to 8:30 p.m. The second, "Empire of the Penguins," will be held the following week on April 30, from 7:00 to 8:30 p.m. The program code for both talks is ED98213L. Fee: \$18; \$16 members.

### The Center for Biodiversity and Conservation Spring Symposium

Scientists, environmentalists, physicians, and health professionals will explore how plant, animal, and microbe species provide models for medical research and sources of new medicine. Protection of ecosystems not only helps to ensure the survival of these species, but is essential in maintaining our air, food, and water supplies.

This two-day symposium will be held on April 17 and 18. For information, call (212) 769-5200. Program Code: CBC98SS



The jaguar, one of many animals that live in the rainforest









"Flying Fish with Bubbles"

Continued from page 1

galleries and museums in London. The New York exhibition will expand on the London show to include four new works by Camp: three sculptures on the theme of "Dressing" —the transformation of the OkoluKuruKuru performers into spirits through costume, music, and dance; and a piece entitled "Alagba in Limbo," which explores the theme of spirituality in contemporary Nigeria.

In addition to Camp's sculptures, *Spirits in Steel* will include traditional and modern masks from the collections of the British Museum and the American Museum of Natural History, as well as videos by Camp and Jane Thorburn. The artist's commentary on her works and on masquerade will form the basis of the texts that frame the

installation. Camp is working closely with Anthropology Department curator Enid Schildkrout and designer Steven Quinn in creating the installation.

Camp attended Britain's Central School of Art and Design and the Royal College of Art. Her work has been exhibited in numerous galleries and museums around the world, including the Smithsonian Institution in Washington, D.C., the Royal Academy of Art in London, and the Galleria d'Arte Contemporanea in Marsala, Sicily.

*Spirits in Steel: The Art of the Kalabari Masquerade* will be on view in the Museum's Gallery 77 from April 25 through October 12, 1998. This exhibition is made possible through the support of the Lila Wallace-Reader's Digest Endowment Fund.



"Two Copulating Fish"

Continued from page 3

Terenzi has recently completed her first book, *Heavenly Knowledge: An Astrophysicist Seeks Wisdom in the Stars*, which explores astronomy as a metaphor for human relationships and for humanity's perception of its relationship with the universe.

The first astrophysicist/recording artist to be a member of both the National Academy of Recording Arts & Sciences and the American Astronomical Society, Terenzi has lectured widely on her work in the United States, Europe, and Japan. She has also appeared on CNN and in *Time* magazine and *The Wall Street Journal*.

The lecture will be presented in the Kaufmann Theater on April 29th at 7:30 p.m. Program code: HP118L. Fee: \$8; \$7 members.

### Green with Envy

April 17, 6:30 p.m.

A discussion and museum-hall tour led by Robert Campanile and focusing on various plants and flowers found throughout the world. Program Code: MM-2.

### Fossils on Fifth Avenue

April 15 & 16, 5:30 to 7:30 p.m.

Geologist Sidney Horenstein, coordinator of the Museum's Environmental Programs, identifies fossils and rocks, many of which are over 100 million years old, on a walking tour down Fifth Avenue. On this excursion, participants will see the results of the collision of continents and locate extinct cousins of chambered nautilus. Program code: MM-3. Fee: \$20 members.

SET ASIDE A NEST EGG FOR YOUR RETIREMENT NOW...



Artist's recreation based on fossils of an oviraptor protecting its nest, discovered by AMNH scientists in the Gobi Desert in 1993. (Illustration by Mick Ellison for the AMNH)

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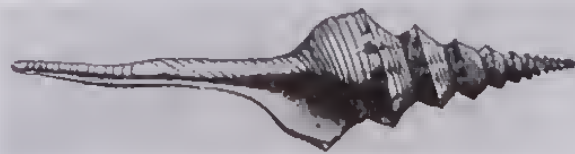
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4/98

## The Garden Cafe has been relocated to The Hall of Ocean Life.



We look forward  
to seeing you under the Blue Whale  
at the new Ocean Life Cafe.

### Imax® Theater Screenings

#### Cosmic Voyage

Experience the wonders of the universe, from the tiniest building blocks of matter to superclusters of galaxies in outer space. Using 3-D computer-graphic images and live-action footage, *Cosmic Voyage* allows viewers to witness phenomenal events, such as the Big Bang, the collision of galaxies, and the formation of the solar system. Running time: 35 minutes.

#### Whales

The docudrama *Whales* brings together a stunning combination of art and science to portray the annual migration of whales. The large-format technology captures the wonder of being among whales, and results in what critics have called a "breathtaking" and "dazzlingly poetic experience." Running time: 40 minutes.



Humpback whale in Baie d'Antongil, Madagascar







Library (15)

# ROTUNDA

For Family/Dual and Higher Members of the American Museum of Natural History

Vol. 23, No. 5 May 1998

## Learning about Biodiversity: Out of the Classroom and into Nature



Pacific calico scallops (*Argopecten circularis*)

Biological diversity is the key to the preservation of life on earth. It encompasses the immense range and variety of life forms—the differences within and between gene pools, species, populations, and entire ecosystems. It sustains and supports all living things, from microbes to humans. Without diversity, life itself could not exist.

This month, the Museum will open a major permanent exhibition devoted to biodiversity and conservation. The new Hall of Biodiversity will make significant contributions to the Museum's commitment to expand the public's understanding of the earth's diverse and often endangered forms of life, and will serve as a place for learning about new scientific discoveries.

The essential purpose of the Hall will be to convey the idea that biodiversity is a matter of urgent and practical concern to all people. Global diversity and the balance of species and habitats contribute to the medicines that cure us, the industry and commerce that support our economies, and the foodstuffs that feed us. The lives of city dwellers, as well as those of people in remote rural areas, are profoundly affected by overexploitation of natural resources. Environmental degradation and species extinction throughout the world not only threaten the survival of all species but also damage the health, economic stability, and quality of life of humans.

To meet the challenge of bringing this vital scientific information to the public, the Museum's Department of Education and its National Center for Science Literacy, Education and Technology, together with the Center for Biodiversity and Conservation, are working in concert to create education-

related projects that will extend the Hall's concepts to the widest possible audience. Noting the tremendous benefits of this collaborative approach, Myles Gordon, director of the Museum's Department of Education, comments that "The integrated outreach efforts of the Museum's education, science, and exhibition departments on issues of biodiversity have been extraordinary and have produced an incredible opportunity to serve an educational function. Drawing on the Museum's extensive research, collections, and resources, we have been able to create an amazing array of programs and products, using different media and technologies, to convey the idea of protecting and conserving habitats and species."

This integrated approach is evident in the breadth of programs the Museum is planning, from preschool activities to teaching institutes; from on-site to Web site. The objective is to ensure that people of all ages and from all walks of life can actively participate in learning about and protecting biodiversity. Over the course of the next year, many of the Museum's lectures, school programs, and publications, as well as workshops for children, teenagers, and families, will focus on the theme of biodiversity. Special professional development activities will immerse teachers in the subject of biodiversity, introduce them to the Museum's resources, and take them on field trips to observe species and their habitats. Additionally, a curriculum guide, in print and on-line, will prepare teachers and students for excursions to the Museum and the Hall of Biodiversity and offer them activities for use in their classrooms.

Many of the projects geared toward children and adolescents have already

been launched—with very positive results. Of particular interest is a series of Museum Web sites for children ages four to seven, outlining activities that can be pursued at home, in a community setting, or even on vacation. The exercises encourage kids to look closely at shells, leaves, rocks, animal tracks, plants, and other elements of the natural world, focusing on observation, identification, and classification—skills that are fundamental to natural science. Field-journal pages for recording data and material for making dioramas can also be printed out from a Web site.

Among the outreach programs for middle-school children is Biodiversity Counts. A national curriculum project recently field-tested in seventeen states and Canada, it received an overwhelmingly favorable response from teachers and kids alike. The program takes students out of the classroom and into their local environments to inventory species and observe the relationships among them. Students share their findings locally through the cre-

ation of small-scale exhibitions and with other students across the country on the World Wide Web. Biodiversity Counts will be expanded next year to approximately 100 classrooms across the country.

Another impressive project is a sixteen-page, full-color magazine entitled, *Biodiversity: It Takes All Kinds to Make a World*. The magazine, aimed at children ages seven to ten, focuses on defining the concept of biodiversity, emphasizing why biodiversity is crucial to everyone, promoting exploration of local ecosystems, and presenting activities and projects in which families can participate together. Illustrations, games, quizzes, and home-based activities will enable children and adults to connect with and observe the world around them, recognize the different habitats in their communities, identify the diverse sources of products they use every day, and learn about the work of Museum scientists. *Biodiversity* will be distributed free of charge in the Hall of Biodiversity and mailed to 77,500 teachers and one and a half million children as a supplement to *Time For Kids* (a version of *Time* magazine for children). A Web site for the magazine is also being planned.

Continued on page 7



Snowy owl (*Nyctea scandiaca*)



## Members' Expeditions

The following series of programs focuses on the biodiversity of unique habitats in the tri-state area. Join Museum staff, scientists, and naturalists on fascinating educational adventures and learn more about the ecology of your own "backyard."

All expeditions, unless otherwise noted, include round-trip transportation (via charter bus from the Museum) and lectures. A detailed itinerary, along with specific instructions, will be sent to all participants after registration for a program.



Palisades Interstate Park

### The Biodiversity of Sandy Hook, N.J.

Thursday, May 14, 9:00 a.m.–5:00 p.m. Join naturalist and artist John Quinn to explore the diverse habitats of dunes, tidal ponds, and holly forests in Sandy Hook, New Jersey. Once at Sandy Hook, a National Park Service Ranger will give a talk on the history of this unique coastal area. Afterward, during the day's hike, Quinn will discuss the ecology of freshwater ponds and will seine for examples of marine life in Horseshoe Cove. There will also be a private tour of the holly forest with a ranger.

Wear comfortable clothing and bring your lunch and binoculars to look for nesting osprey that inhabit the Hook. The bus will leave from the Museum. Program code: MM 2-3. Fee: \$65; \$60 members.

### Hudson Highlands

Saturday, June 6, 8:00 a.m.–5:00 p.m. Come explore the fauna and flora in beautiful Harriman State Park, situated within the vast Palisades Interstate Park. Jack Pocht, director of the Trailside Museum and Wildlife Center, has arranged several interesting nature hikes and walks that participants can take part in throughout the day. The Silver Mine ski center will serve as the base camp.



Participants can choose to observe a beaver colony with Hope Ryden, naturalist and author of eight books on North American wildlife, (including *Lily Pond: Four Years with a Family of Beavers*) or take a walk with naturalist Spider Barbour, who will discuss butterflies and the flora on which these insects dwell. Participants who enjoy examining artifacts will want to join archaeologist

Edward Lenik on a hike to explore Native American rock shelters. Lenik is a noted expert on petroglyphs and prehistoric rock art. Sidney Horenstein, coordinator of the Museum's Environmental Programs, will also be on hand to lead an expedition to the abandoned iron mines of the Hudson Highlands.

Program code: MM4-6. Fee: \$50; \$45 members (Full-day program without transportation). Program code: MM5-6. Fee: \$70; \$65 members (Full-day program including transportation).

### The New Jersey Pine Barrens

Saturday, June 13, 8:00 a.m.–6:00 p.m. Designated as the nation's first National Reserve, the New Jersey Pine Barrens encompasses over one million acres. Far from "barren," the Pine Barrens is comprised of a diverse and complex array of habitats, including bogs, pygmy pine forests, cedar swamps, slow moving streams, and pine and oak woodlands. Participants will spend the day hiking through these distinct areas and learning about the plant and animal species native to it,

including rose pogonia orchids, carnivorous plants, velvet ants, and pine snakes. The trip will also include a visit to a historic village managed by the Whitesbog Preservation Trust to learn about the cranberry and blueberry industries and a talk by a local scientist on indigenous reptiles and amphibians.

Liz Johnson, ecologist and manager of the Metropolitan Biodiversity Programs at the Museum's Center of Biodiversity and Conservation, will lead the excursion. Wear comfortable clothing and bring your lunch. Program code: MM6-6. Fee: \$75; \$65 members.



Oswego rust

### The Meadowlands

Friday, June 19, 9:00 a.m.–4:30 p.m. Millions of people glance at the New Jersey Meadowlands en route to New York City and dismiss it as a wasteland. Join John Quinn, naturalist, artist, and author of *Fields of Sun and Grass*, and learn to view this unique urban wilderness with a fresh perspective.

The trip will begin with an engaging talk at the Environmental Center located in Richard W. DeKorte Park. During the day's hike, participants will visit Snake Hill and the Transect and Marsh Discovery trails; examine fishes, invertebrates, and aquatic plants; and enjoy spectacular vistas of the New York skyline.

Quinn will discuss the history of the meadowlands, from the geologic forces that shaped it to the current struggle to preserve its ecological integrity.

Wear comfortable clothing and bring your lunch. Program code: MM7-6. Fee: \$60; \$50 members.



Snowy egret

### Life in the Balance

Tuesday, June 2, 7:00–8:30 p.m.

From the depletion of the Brazilian rainforests to holes in the ozone layer and the disappearance of the spotted owl, extensive coverage of recent environmental crises has made the public increasingly aware of the perilous threats facing the environment. What do these crises have to do with us and the way we live our daily lives? Niles Eldredge, curator in the Museum's Department of Invertebrates and one of the principal curators for the new Hall of Biodiversity, will attempt to address these issues in a lecture centered around his new book, *Life in the Balance*.

Eldredge will discuss four basic questions concerning biodiversity: What is biodiversity? Why should we care about it? What is the diversity of life on this planet? What can we do to preserve it? In his book, Eldredge describes biodiversity as that "rich spectrum of life—all the world's species ranging from the smaller bacteria to the giant redwoods; from the algae of the sea to the wild dogs of the African savannas; from the worms of the soil to the falcons of the air." By illuminating the diversity and interconnectedness of all living things on the planet, Eldredge shows how our fate is inextricably linked with the over thirteen million living species with whom we share the planet.

Eldredge, one of the world's foremost paleontologists, is the author of numerous books, including *The Miner's Canary*, *Fossils*, and *Time Frames: The Evolution of Punctuated Equilibria*.

The lecture will be held in the Kaufmann Theater. Program code: MM8-6. Fee: \$10; \$8 members.



Niles Eldredge

### Sterling Hill Zinc Mine

Saturday, June 27, 9:00 a.m.–5:00 p.m.

Join Joseph J. Peters, senior scientific assistant in the Museum's Department of Earth and Planetary Sciences, on a visit to one of the most unusual and enigmatic mineral deposits on our planet.



Sterling Hill Mine, ground-level entrance called the Adit, bordered by ore cars

The Sterling Hill Zinc Mine and nearby Franklin Deposit, in Ogdensburg, New Jersey, contain examples of approximately 10 percent of all known minerals—over 430. After a thorough talk covering the mine and minerals, participants will explore the underground tunnels, including the magical Rainbow Tunnel with its brilliant fluorescent colors. The tour then proceeds to the Sterling Hill Mining Museum, which houses fascinating mining memorabilia. Collectors

can take home samples of fluorescent minerals found in the dumping areas for a small additional fee. Pack a lunch, bring a sweater for the cool subterranean passages, and wear sturdy shoes. Program code: MM1-6. Fee: \$65; \$55 members.

### Roosevelt Island and Beyond

Saturday, May 30, 9:00–11:00 a.m. & 12:00–2:00 p.m.

Geologist Sidney Horenstein, coordinator of the Museum's Environmental Programs, will conduct two trips to Roosevelt Island. Tour participants will learn about the geological history of the island, the origin of the East River, and the story behind the island's remaining 19th-century buildings, including the restored Blackwell House.

Program code: MM 3-3. Fee: \$25; \$20 members.



## ROTUNDA

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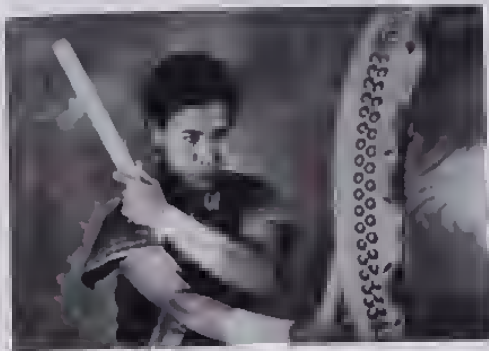
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## Asian-Pacific American Heritage Month

In recognition of Asian-Pacific American Heritage Month, the Museum will present an impressive array of cultural events focusing on the traditions, experiences, and contributions of Asian and Pacific Island people. Over three weekends in May, there will be an extraordinary selection of films, lectures, music, dance performances, and art exhibitions celebrating the breadth and vigor of Asian and Pacific Island culture.



Kenny Endo

### May 2 & 3

Eternal Energy, 2:30 & 4:00 p.m.

Japanese American Kenny Endo will demonstrate his skill at combining traditional Japanese taiko (drum) rhythms with world music. A unique blend of east and west, Endo's music flows unconstrained across cultural barriers as it entices listeners of all ages and backgrounds. Endo is one of the few Americans to have received a master's degree in classical Japanese drumming technique.

### May 16 & 17

Video: *Honor Bound* (1996), 55 min. 1:00 p.m.

Director: Wendy Hanamura

The documentary *Honor Bound* tells the story of a special unit of Japanese American soldiers who fought in Europe during World War II. Throughout the film, veterans of the 100/442nd Regiment recall their experiences on the battlefield, the prejudice they encountered while serving in the army, and the shock they felt when their families were placed in internment camps in the United States. Director Hanamura weaves together a moving and informative narrative about a bleak moment in American history.

The Many Faces of Chinese America, 2:00 & 3:30 p.m.

Author Ruthann Lum McCunn will present a vivid slide-illustrated lecture about the Chinese American individuals portrayed in her latest book, *Chinese American Portraits*. Among some of the fascinating people McCunn will talk about are Alaskan frontierswoman Mary Bong, plant expert Lue Gim Gong, and Arlee Hen, a woman of mixed black and Chinese ancestry from Mississippi.

Dances of Warriors and Goddesses, 2:30 & 4:00 p.m.

Dancer and teacher Margaret Yuen will discuss how her investigations into her Chinese heritage helped expand her artistic vision. Yuen will perform several dance pieces. Audience members will be invited to participate.

### May 30 & 31

Video: *Home From the Eastern Sea* (1990), 58 min. 1:00 p.m.

Producers: Lucy Ostrander, Elizabeth Clark, and KCTS television.

Using personal narratives and archival footage, *Home From the Eastern Sea* portrays the stirring role of Chinese, Japanese, and Filipino immigration to the United States.

Voice of an Asian Artist, 2:00 & 3:30 p.m.

Chris K. Soentpiet will talk about his life as a child from Korea adopted into an American family from Hawaii, and how his family circumstances influenced his work as a children's-book writer and illustrator. Soentpiet is the winner of the 1996 International Reading Award and the Society of Illustrators Gold Medal.

Burmese Dance Drama, 2:30 & 4:00 p.m.

Dancer U Win Maung and his ensemble will perform the Burmese version of the classic Indian epic poem, *Ramayana*. Using Burmese traditional costumes and music, the story of Rama, his wife Thida, his brother Letkhana, and the demon king Ravana are brought to life under Maung's adept direction.



U Win Maung

These programs are free with Museum admission and do not require a ticket. All seating is limited and is on a first-come, first-served basis. For further information, call the Museum's Department of Education at (212) 769-5315 between 9:00 a.m. and 5:00 p.m. weekdays.

## Preserving Biodiversity in Korea's Demilitarized Zone: Peace Through Conservation

To mark the opening of the Museum's new Hall of Biodiversity, the New York Entomological Society will present a unique talk by Ke Chung Kim on biodiversity and conservation within Korea's Demilitarized Zone (DMZ). A noted scientist, Kim is a professor of entomology at Pennsylvania State University, as well as director of the University's Center for Biodiversity Research.

Heavily fortified with land mines and barbed wire, the DMZ has separated North and South Korea since the establishment of the 1953 Armistice Agreement following the Korean war. As a result of forty-five years of inaccessibility to humans, the DMZ, some four kilometers wide and 250 kilometers in length, has become, strangely enough, a sanctuary for endangered and threatened forests, plants, and animals.

Today, the DMZ's ecosystems provide wintering grounds for two of the world's most endangered birds: the white-naped crane and the red-crowned crane. The area

is also home to nine rare species of mammals, including black bear and musk deer. Moreover, biotic surveys conducted in the Civilian Control Zone (a twenty-kilometer-wide buffer zone in South Korea adjacent to the DMZ) over the last thirty years have revealed many previously unknown or endemic species of plants and animals.

The environmental rejuvenation occurring within the DMZ is in direct contrast to the environmental degradation taking place on the rest of the Korean peninsula. In South Korea, most natural ecosystems, including large sections of the coastline and salt marshes, have been converted into industrial estates and urban centers. Such development has resulted in severe pollution of waterways and farmlands by pesticides, chemical fertilizers, and industrial and municipal waste. In North Korea, rampant deforestation has caused severe soil erosion and flooding. The inevitable outcome of this devastation has been a tremendous loss of biodiversity.

Within the next few decades, unchecked urban development requiring the appropriation of land and other natural resources will undoubtedly accelerate the loss of biodiversity on the Korean peninsula. To counter this dangerous trend, Kim has proposed the conversion of the DMZ into a system of transboundary biospheres jointly administered by the two Koreas. Since 1994, Kim has been engaged in promoting and building support for the concept of the Korean Peace Biospheres System (KPBRIS), a strategy that he believes will not only "safeguard the DMZ's rich biodiversity, but gradually eliminate the distrust between the two countries and lead to further collaboration."

The lecture is free and will be held in the Linder Theater on May 27, at 7:00 p.m.



Map courtesy of the Department of Science

## John Burroughs Awards Announced

The John Burroughs Association, founded and headquartered at the Museum, announced the results of its tenth annual competition for outstanding natural history books for children at the Association's award luncheon in April. The seven books selected for inclusion on the Association's 1997 John Burroughs List of Nature Books for Young Readers are *Bats: Shadows in the Night*, by Diane Ackerman; *An Extraordinary Life*, by Laurence Pringle; *Little Big Ears*, by Cynthia Moss; *A Log's Life*, by Wendy Pfeffer; *The Most Beautiful Roof in the World*, by Kathryn Easky; *The Secrets of Animal Flight*, by Nic Bishop; and *Storm on the Desert*, by Carolyn Lesser. The Young Readers List was established in 1988 to encourage writers, artists, and publishers to produce books that invite young readers to explore the natural world.

In addition to the children's book awards, the Association also recognized the winners of the 72nd John Burroughs Literary Medal Award competition for exceptionally fine nature writing and the 5th annual competition for an Outstanding Published Natural History Essay. The recipient of the Literary Medal was John Alcock for his book, *In a Desert Garden: Love and Death Among the Insects*. The Natural History Essay award was given to Michael Pollan for his piece "Building a Room of My Own," which appeared in the *New York Times Magazine* on February 9, 1997.

The Association's literary awards are given in recognition of exceptional writing on natural history that foster a love of nature as exemplified by Burroughs's own work. A leading literary critic in his day, Burroughs (1837-1921) was also a pioneer in the school of nature writing. During his life, he published some twenty-five volumes on natural history, and many of his essays appeared in special school editions.



*Little Big Ears: The Story of Ely*, by Cynthia Moss



## Program Listings

### Department of Education

#### Lectures

##### Biodiversity in Indonesia

Thursday, May 21 & 28, 7:00–8:30 p.m.  
Zoologist Simon D. Pollard will present a two-part lecture about his exploration of Deer Cave in Gunung National Park on the island of Borneo. Pollard, a noted researcher and photographer of spiders and insects, is a professor at the University of Canterbury in New Zealand. The presentations will be accompanied by slide illustrations. Program code: ED98219L. Fee: \$18; \$16 members (fee is for both lectures).

##### Costa Rican Sea Turtles

Thursday, June 4, 7:00–8:30 p.m.  
Leatherback sea turtles have inhabited waters as far south as New Zealand and as far north as the Arctic Circle. These massive turtles, some weighing 2,000 pounds or more, are among the most ancient reptiles to wander the earth. James R. Spotila will present a slide-illustrated talk on these mysterious creatures. Spotila is the Betz Chair Professor of Environmental Science at Drexel University. Program code: ED98203L. Fee: \$12; \$10 members.



##### Music of the Caucasus Mountains

Wednesday, June 10 & 17, 7:00–8:30 p.m.  
This two-part lecture will examine the cultural and musical traditions of the Southern Caucasus region. Jeffery Werbock, composer and performer, has been studying the traditional music of Azerbaijan since 1972. During his talk, Werbock will demonstrate the varied forms and styles of the music of the Caucasus, as well as show slides. Program code: ED98218L. Fee: \$18; \$16 members (fee is for both lectures).

#### Multicultural Programs

##### Pagdiriwang! A Philippine Centennial Celebration

Saturday, June 6, 12:00 noon–5:00 p.m.  
In celebration of the one-hundredth anniversary of Philippine independence, the Museum is sponsoring a number of events, including music and dance performances, children's workshops, and film screenings. This program was created in conjunction with the Philippine Centennial Coordinating Council, Northeast USA. For schedule information, call (212) 769-5315.

#### Workshops

##### Photographing Biodiversity

Saturday, June 20, 1:00–3:00 p.m.  
Zoologist Simon D. Pollard will demonstrate some of the professional techniques used in photographing in-

sects and spiders. Pollard is a professor at the University of Canterbury, New Zealand, and a contributor to *Natural*



*History Magazine*. Participants should bring their own equipment. Program code: ED98331X. Fee: \$30.

#### Walking Tours

##### Central Woodland, Pelham Bay Park

Saturday, May 16, 10:00 a.m.–1:00 p.m.  
A walk through the picturesque salt marsh of Pelham Bay Park provides an opportunity to explore the ecology of this marine environment. Guide: William Schiller, lecturer in botany in the Museum's Department of Education. Program code: ED98312X. Fee: \$12; \$10 members. Limited to 25.

##### Chelsea, a Hub of the Arts

Sunday, May 31, 1:30–3:30 p.m.  
Chelsea, one of New York's most exciting neighborhoods, has long been a vibrant community of painters, poets, dancers, writers, and musicians. This tour will begin at the Chelsea Hotel, once home to Bob Dylan, Andy Warhol, and Virgil Thomson. Moving west, the tour will visit the Shrine Church of the Sea, the General Theological Seminary, and the oldest house in Chelsea. Program code: ED98315X. Fee: \$12; \$10 members.

##### Touring Fort Washington

Saturday, June 13, 1:30–3:30 p.m.  
One of Manhattan's most beautiful residential neighborhoods is nestled on the cliffs just south of Fort Tyron Park, site of a Revolutionary War battle. There will be a tour of the picturesque buildings within this area, focusing on two pioneering middle-class apartment complexes: Hudson View Gardens and Castle Village. Participants will also explore Fort Tyron Park, with its spectacular garden and views across the Palisades. The Cloisters is also nearby. Guide: architectural historian Andrew S. Dolkart. Currently, Dolkart teaches at Columbia University. He has recently published *The Guide to New York City Landmarks*.



Program code: ED98332X. Fee: \$12; \$10 members.

##### Living on Central Park West

Sunday, June 14, 1:30–3:30 p.m.  
On this tour, participants will visit some of the numerous houses of worship in the area around 86th Street and Central

Park West. There will also be discussion about the various architectural styles of the buildings along the park, their historic context, and the diverse lives and lifestyles of the local residents. Program code: ED98316X. Fee: \$12; \$10 members.

#### Field Trips

##### Geology Cruise Up the Hudson River

Tuesday, June 9, 6:00–9:00 p.m.  
A sunset cruise up the Hudson River to survey the geological features of this southernmost fjord in the northern hemisphere. Participants will learn about the river and the Palisades, plant and animal environments, local history, and the environmental problems facing the Hudson today. Participants should bring their own box dinner. Snacks will be available on the boat. Guide: Sidney Horenstein, coordinator of the Museum's Environmental Programs. Program code: ED98323X. Fee: \$24; \$21 members.



##### West Edge of New York Harbor

Tuesday, June 16, 6:00–9:00 p.m.  
On this cruise, participants will explore the Morris Canal Basin, travel past Liberty Island and the Statue of Liberty, and enter the various marine terminals



along the Bayonne Peninsula. There will be commentary about how these terminals contributed to the growth of New York Harbor. Participants should bring their own box dinner. Snacks will be available on the boat. Guide: Sidney Horenstein, coordinator of the Museum's Environmental Programs. Program code: ED98324X. Fee: \$24; \$21 members.

##### New York Above and Below

The following series of bus trips, coordinated by Robert S. Grumet, National Park Service anthropologist, will explore the 12,000-year-old archaeological history of greater New York. All tours begin and end at the Museum. The fee for each trip is \$65. Limited to 50.

##### Archaeology of the Port of New York

Saturday, May 30, 10:30 a.m.–4:30 p.m.  
This trip includes visits to Hoboken Ferry Terminal, the New Jersey Central Railroad Terminal, and the Morris Canal Basin. Guide: Tom Flagg, coordinator for Historical Documentation Services. Program code: ED98327X.

##### Industrial Archaeology of Greater New York

Saturday, June 6, 10:30 a.m.–4:30 p.m.  
This tour begins with a visit to Ringwood Iron Furnace and continues on to the Paterson-Great Falls section of the Passaic Industrial Complex National Historic Landmark. Guide: Edward Rutsch, president of Historic Conservation, Inc. Program code: ED98328X.

##### Archaeology of the Old City

Saturday, June 13, 10:30 a.m.–4:30 p.m.  
On this trip, participants explore Chatham Square, the African burial ground, City Hall, Lovelace Tavern, Trinity and St. Paul's churches, Wall Street, and One Broad Street Plaza. Guide: archeologist Joan H. Deismar. Program code: ED98329X.

#### Children's Workshops

##### Inside Your Body

Sunday, May 31, 10:30 a.m.–1:30 p.m.

Children will discover how the body functions as they listen to their heartbeat, examine



X-rays, and investigate bones and muscles. A visit to the Hall of Biology and Human Evolution is part of the program. Presented by Dina Cukier Schlesinger, computer and science teacher at P.S. 140 in Manhattan. Ages 7 to 8. Program code: ED98410C. Fee \$15.

##### All About Fish

Sunday, May 31, 10:30 a.m.–12:00 noon  
This hands-on program explains fish shapes and how fish breathe and swim. Children will make fish prints and visit the Hall of Ocean Life. Presented by Judith Levy, who has taught at the Carnegie Museum of Art. Age 5 (Each child must be accompanied by an adult). Program code: ED98411C. Fee: \$10.



##### Crime Lab Chemistry

Sunday, May 31, 10:30 a.m.–1:30 p.m.  
Children will solve a mystery by learning how to compare fingerprints, test inks with paper chromatography, collect evidence, and analyze a ransom note. Presented by Lisa Bresloff, senior natural science instructor in the Museum's Department of Education. Ages 8 to 9. Program code: ED98412C. Fee: \$15.

\*Children should bring a bag lunch for three-hour programs.



# Asian Children's Film Fest '98

In conjunction with Asian-Pacific American Heritage Month, the Museum will present a series of exceptional films from Asia for children. The festival will take place the weekend of May 2 and 3, and all films will be shown in the Kaufmann Theater, unless otherwise noted.

## May 2 & 3

**Ganapathi Bappa Morya!** (Hail to the Lord Ganesh, 1997), 9 min. 12:00 Noon  
 Producer: Zed Institute of Creative Arts  
 Bomba, the elephant, imagines himself to be Lord Ganesh, a Hindu deity. All is not fun, however, when Bomba's pretending begins to cause his friends great sorrow. (Animation. In Hindi)

**The Lift** (1997), 3 min. 12:15 p.m.  
 Producer: Zed Institute of Creative Arts  
 A large, gruff man goes out one day and buys a very pretty bird. While bringing the bird up to his apartment, the lift (elevator) suddenly becomes stuck. The man's experience in the lift teaches him an important lesson. (Animation. No dialogue)

**Rusuban** (Home Alone, 1996), 4 min. 12:20 p.m.  
 Director: Nozomi Nagasaki; Producers: N & G Production and Nozomi Nagasaki  
 An imaginative film about a cat's first time at home, alone. (Animation. No dialogue)



*Paper Camera* (1995)

**Paper Camera** (1995), 25 min. 1:00 p.m.  
 Producers: Tomas N. Lackey and George J. Sinclair  
*Paper Camera* portrays the moving tale of Kwok, a ten-year-old Chinese boy whose family has immigrated to Canada. In school, Kwok is befriended by his classmate, Eric, who trades him a baseball card for his origami paper frog. Although the boys do not speak the same language, they quickly become constant companions.

**Taru** (The Tree, 1995), 22 min. 2:30 p.m.  
 Director: Ram Mohan; Producer: National Center of Film for Children and Young People  
 Based on an Indian legend, *Taru* tells the story of a young boy who befriends a tall and strong tree. Over the years, the boy seeks out the tree's advice and help. Yet it is not until he grows up that the boy discovers the importance of his relationship with the tree. (Animation. In Hindi, with English subtitles)

**The Fourth of the Narcissus Month** (1990), 12 min. 3:00 p.m.  
 Director: Nozomi Nagasaki; Producers: N & G Production and Sumiko Hosaka  
 Based on a story by poet Kenji Miyazawa, the film portrays the last, icy moments of winter before the narcissus bloom. (Animation. In Japanese)

## May 2

**Bag of Rice** (1996), 90 min. 12:45 p.m.  
 Director: Mohammad-Ali Talebi; Producer: Digital Media Lab  
 Four-year-old Jairan receives scant attention from her busy family. One day, Jairan tags along on a shopping trip with the old woman who lives next door. But what starts out as a harmless trip to the market becomes an all-day affair, filled with surprises and complications. Recommended for ages 11 to 14. (In Farsi, with English and Japanese subtitles)

**Shiroi Uma** (White Horse, 1995), 106 min. 3:15 p.m.  
 Director: Makoto Shiina; Producer: Hase Film Cinema Production  
 Summer has arrived in Mongolia and seven-year-old Naran has just returned to his home in the vast steppe region. Inspired by a Mongolian legend about a shepherd boy and his horse, Naran decides to enter the Naadam, a grueling horse race. Recommended for ages 11 to 14. (In Mongolian, with English subtitles)

## May 3

**Halo** (1995), 90 min. 12:45 p.m.  
 Director: Sanjosh Sivan; Producer: National Center of Film for Children and Young People  
 Feeling lonely, seven-year-old Sasha prays for a miracle. One day, her prayers are answered with the arrival of Halo, a puppy. When Halo suddenly disappears, a hilarious search for him ensues. Recommended for children ages 11 to 14. (In Hindi, with English subtitles)

**Kakadu** (1995), 100 min. 3:15 p.m.  
 Director: Tehmineh Milani; Producer: Artfilm  
 The planet Kakadu is ruled by environmentalists. As punishment for polluting, citizens of Kakadu are exiled to earth. By chance, a young girl named Golnaz meets a professor from Kakadu who has been exiled for one week. Recommended for ages 11 to 14. (In Farsi, with English subtitles)

For further information, call the Museum's Department of Education at (212) 769-5315 between 9:00 a.m. and 5:00 p.m., weekdays. The Asian Children's Film Fest '98 is co-sponsored by the Museum's Department of Education and the Indian Advisory Board of the Queens Child Guidance Center.



*Godzilla, King of the Monsters* (1954)

## The Science of Godzilla

Saturday, May 16, 2:00-4:30 p.m.  
 With recent water main breaks, building bricks falling on our heads, and whole buildings literally collapsing, it is only fitting that when the new *Godzilla* film arrives in New York on Memorial Day weekend, we should fear that the monster may demolish the city once and for all. Don't worry, as in 1954, when he destroyed Tokyo, the city will most likely be rebuilt!

Few movie monsters enjoy as much notoriety as Godzilla. To many, he is basically a dinosaur, but to paleontologists, very little about Godzilla is dinosaurian. Mark Norell, chairman and associate curator of the Museum's Department of Vertebrate Paleontology, will attempt to cast the legendary beast in a scientific light, providing an educational as well as humorous presentation. Following the discussion, enjoy a free screening of the original *Godzilla, King of the Monsters* (1954). Robert "Bobzilla" Campanile will host this special Godzilla program.

The screening and lecture will be held in the Kaufmann Theater. Program code: MM 1-3. Fee: \$10; \$8 members.

## All for One and One for All

Friday, June 12, 5:30 & 7:30 p.m.  
 Come and celebrate the opening of the Museum's Hall of Biodiversity, a spectacular new 11,000-square-foot permanent exhibition hall that brings together the latest achievements in science and technology. Among other things, the Hall will address the challenges society faces if it is to preserve the variety of the planet's living things, and offer solutions on how to protect against the further loss of biodiversity. Most important, however, is the message that species and habitat diversity is critical to our lives and to the larger world around us, and it must be conserved.

Robert Campanile will offer two exciting tours through the Hall of Biodiversity. Each tour is limited to forty people. Program code: MM3-6.



*Hebrew volute (Voluta ebraea)*

## Shell Shock

Friday, June 26, 6:30 p.m.  
 Few works of nature can match the beauty of shells. Join beachcomber "Bob" Campanile as he takes to the shore to explore the amazing creatures that produce the sea shells we hunt for in summer. The excursion will also include a trip through several of the Museum's halls to discover how different cultures have used shells in their art and daily life. Program code: MM2-6.

## T-Rex Teeth

Saturday, May 9, 1:00-2:30 p.m.  
 Imagine yourself in Wyoming, sifting through the dirt with your fellow archeologists, when suddenly you discover a large fragment of a fossilized dinosaur tooth. You continue to dig. More fragments appear. When you finally place the pieces together, they form four complete teeth from the same maxillary jaw. The size and serrations of the teeth suggest a large carnivore. Could it be from the mighty *Tyrannosaurus rex*?

In this children's workshop, kids will learn the habits and habitats of dinosaurs, alligators, rhinoceroses, bison, and sharks by examining actual specimens of teeth and cast replicas. Children will assemble four plaster-cast fragments of T-rex teeth and then paint the finished fossil reconstruction to resemble a real fossil specimen. Each child will take home their own fossil replica.

Pamela Popeson, artist and former director of the Museum's Fossil Reproduction Department, will conduct the workshop. All materials used are non-toxic and washable; however, art clothes are advised. This workshop is for ages 6-11. Location: Edith C. Blum Lecture Room. Program code: MM 5-3. Fee: \$25; \$20 members.







Continued from page 1

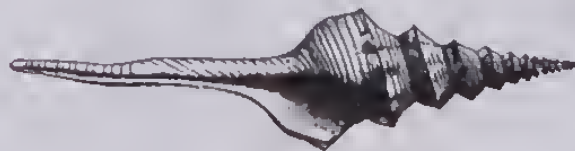
For students in grades seven through twelve, the Museum is sponsoring an annual competition, the "Young Naturalist Awards," honoring excellence in biology, earth science, and astronomy. This year's awards focused on biodiversity. Students who entered the competition were asked to select a biodiversity topic, conduct observations and research, and then submit an entry that included both writing and some form of illustration: drawings, photographs, or graphic displays. A total of 2,000 entries were received and judged by a panel of distinguished scientists, science writers, and educators. Award recipients will receive scholarships and their entries will be published in a special catalogue on the Museum's Web site, and excerpted in *Natural History* magazine.

environmental organizations from around the world. Plans are to have the book distributed nationally to schools and libraries.

Other Museum-sponsored programs relating to issues of biodiversity and conservation include Pulse of the Planet, a two-minute radio program that airs daily across the nation (on WNYC in New York), featuring sound portraits of the natural world; collaborative work with Discovery Channel Online, linking scientists on expeditions to audiences via the internet; and electronic bio-bulletins updating the Hall of Biodiversity's content with news and events that affect global biodiversity.

That human health and well-being depend on the conservation of biodiversity is still largely unappreciated.

## The Garden Cafe has been relocated to The Hall of Ocean Life.



We look forward  
to seeing you under the Blue Whale  
at the new Ocean Life Cafe.

## The Natural Art of Printmaking: Making Prints from Nature

Sunday, May 3, 1:00–4:00 p.m.

In celebration of the opening of the Museum's new Hall of Biodiversity, the Membership Department is sponsoring a workshop on the Japanese printmaking technique *gyotaku*. Originally used for recording different species of fish, *gyotaku* (literally, "fish rubbing") produces both scientific illustrations and sublime art prints.

Using a variety of papers and inks and paints, participants will make prints of natural objects utilizing casts of animal footprints, geological imprints of glacial scarring, botanical specimens, starfish, shells, fish, and other marine creatures. Participants will also make a multiple-image print on rice paper.

The workshop will be conducted by Pamela Popeson, artist and former director of the Museum's Fossil Reproduction Department. The class will be held in the Edith C. Blum Lecture Room. Program code: MM 4-5. Fee: \$32; \$28 members.



## The Museum Shops

In conjunction with the opening of the sculpture exhibition *Spirits in Steel: The Art of the Kalabari Masquerade*, by Nigerian-born artist Sokari Douglas Camp, the Museum Shops are offering a twenty-two page catalogue featuring a biography of the artist and over a dozen color photographs of her work. The price for the exhibition catalogue is \$13.95.

Two other books featured in the shops this month are by photographer Phyllis Galembo: *Voodoo: Visions and Voices of Haiti* and *Divine Inspiration: From Benin to Bahia*. In *Voodoo*, Galembo portrays the many facets of Haitian voodoo and its practitioners in over eighty compelling photographs. The book also includes several essays. *Voodoo* is \$24.95.

*Divine Inspiration* reflects Galembo's long-time interest in the ritual clothing and art of the African diaspora. Now available in paperback, *Divine Inspiration* is \$45.

These books and exhibition catalogues are just some of the large selection of titles available in the Museum Shops.

Books and other merchandise may be ordered by phone at (212) 769-5150, Monday through Friday 9:00 a.m. to 5:00 p.m. As always, members receive a 10% discount on all their purchases.



Flying Fish with Bubbles

## SET ASIDE A NEST EGG FOR YOUR RETIREMENT NOW . . .



Artist's re-creation of an oviator protecting its nest, based on fossils discovered by AMNH scientists in the Gobi Desert in 1993. (Illustration by Mick Ellison for the AMNH)

## AND PROVIDE FOR THE AMERICAN MUSEUM OF NATURAL HISTORY'S FUTURE



With a gift to the Museum that provides lifetime income, you can:

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For more information, please call (800) 453-5734 or return this confidential reply form to the Office of Planned Giving, American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192.

- ☐ Please send me information on gifts that provide lifetime income.  
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sun	Mon	Tues	Wed	Thurs	Fri	Sat
<h1>May 1998</h1> <h2>American Museum of Natural History</h2>					1	2
					New York Map Society Linder Theater; 11:00 a.m. Asian Children's Film Fest See page 5 for details.	

3	4	5	6	7	8	9
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The Natural Art of Printmaking  
Printmaking workshop with Pamela Popson, 1:00–4:00 p.m. Program code: MM 4-5



Amateur Astronomers  
Association of New York  
Kaufmann Theater; 6:00 p.m.

T-Rex Teeth  
Children's art workshop,  
1:00–2:30 p.m.  
Program code: MM 5-5

Asian Children's Film Fest  
See page 5 for details.  
Asian-Pacific American Heritage Month  
See page 3 for details.

10  
New York Shell Club  
Edith C. Blum Classroom; 2:00 p.m.

11  
12  
Linnaean Society of New York  
Linder Theater; 7:30 p.m.

13  
New York Mineralogical  
Society  
Edith C. Blum Classroom; 5:30 p.m.

14  
The Biodiversity of Sandy  
Hook, N.J.  
Naturalist John Quinn con-  
ducts a tour of Sandy Hook,  
9:00 a.m.–5:00 p.m. Program  
code: MM 2-5

15  
16  
The Science of Godzilla  
Talk by paleontologist Mark Norrell followed  
by a screening of *Godzilla, King of the  
Monsters* (1954), 2:00–4:30 p.m.  
Program code: MM 1-5  
Asian-Pacific American Heritage Month  
See page 3 for details.

17  
New York Paleontological Society  
Room 319; 2:00 p.m.  
Asian-Pacific American Heritage Month  
See page 3 for details.

18  
19

20



21  
22

23  
The Discovery Room is open from  
12:00–4:30 p.m.

24  
25

The Discovery Room is open from  
12:00–4:30 p.m.  
Museum Magic theme for the  
month: Out of this World. Free for  
children five and above, located in the  
Leonhardt People Center.

26  
Linnaean Society of New York  
Leonhardt People Center; 7:30 p.m.

27  
New York Entomological  
Society  
Linder Theater; 7:00 p.m.

28  
New York Microscopical  
Society  
Edith C. Blum Classroom; 7:00 p.m.

29  
30

Roosevelt Island and Beyond  
Two Roosevelt Island tours with Sid-  
ney Horenstein, 9:00–11:00 a.m. &  
12:00–2:00 p.m. Program code: MM 3-5  
Asian-Pacific American Heritage Month  
See page 3 for details.

31  
Asian-Pacific American Heritage Month  
See page 3 for details.





# ROTUNDA

For Family/Dual and Higher Members of the American Museum of Natural History

Vol. 23, No. 6 June 1998

## Rare Beauty: America's Endangered Plants



Western prairie fringed orchid  
(*Platanthera praecox*)



Silversword (*Argyroxiphium sandwicense*)

A fundamental building block of life, plants convert sunlight into food through the process of photosynthesis. They also provide many essentials of our daily lives. The thousands of plant species we use not only include edible crops, herbs and spices, and medicinal and drug plants, but also timber, fibers, cork, tannins, dyes, resins, starches, oils, waxes, and countless other indispensable substances. Our basic dependence on plant life is often overlooked in today's industrial society, however. As the number of plants in danger of extinction continues to increase, the public remains largely unaware of the magnitude of the problem.

The exhibition *Rare Beauty: America's Endangered Plants*, redresses, in small part, this lack of publicity and focuses on the danger facing many plants in the United States. Featuring the work of freelance photographer Maryl C. Levine, widely known for her pictures of cultivated plants, *Rare Beauty* contains an extraordinary array of large-format color photographs of some of the nation's rarest wild species. Visually compelling, the show also illustrates how vulnerable plants are to the onslaught of environmental degradation. Urbanization, deforestation, agriculture, dams, and mining are just a few of the human activities that have dramatically altered the landscape of the U.S., effecting large swaths of countryside native to many plant species.

To capture these endangered plants

on film, Levine traveled across twenty states, including Hawaii and Puerto Rico. With the aid and advice of professional botanists in each location, she tracked down approximately sixty species variously lodged in the mountains, swamps, deserts, forests, and prairies. Using only natural lighting, Levine managed to photograph each plant while it was in full bloom. Forty of these photographs, depicting thirty-five species, appear in *Rare Beauty*.

Amazingly, Levine was able to complete all photography during the period of mid-April through early October. She credits the botanists with whom she worked for helping her find the most appropriate subjects on such a tight schedule. "The botanists were wonderful," she said. "They were willing to assist me, to drop whatever they were doing and take me to the spot. They wanted to help educate the public, to show people the beauty of many of our endangered species." One botanist from Texas was particularly supportive: Jackie Poole, her right wrist encased in a cast, drove a four-wheel-drive vehicle across rough terrain, crossed a flooding river on foot, and climbed a steep cliff in order to guide Levine to one particular rare flower.

Despite being attacked by fire ants, cut by barbed wire, and bloodied by a "cow-crippler" cactus, Levine's determination to complete the project never wavered. "I have always loved flowers," she said, "and with the increased pace of

life and the increasing technology of the world, people haven't had a chance to look at and admire flowers. I wanted to bring the beauty to people who don't have a chance to see it." Levine felt she was the luckiest person in the world "to be privileged to see these rare flowers."

The beauty of these plants is well represented in Levine's photographs. Portraits of Hawaiian flowers, such as the hidden-petaled ahutiton and Arnot's hibiscus, which grows only on a steep sea cliff in Molokai, are subtle works of art. Sadly, we learn through accompanying text panels that the ahutiton is now apparently extinct in the wild, and fewer than fifty of Arnot's hibiscus remain in their native habitat. Many other plants have experienced a similar fate. For example, we learn that in Texas the black lace cactus suffers from habitat loss and illegal collecting, as do several other cacti species. The rosy flowers of the Texas poppy-mallow can now be found only on a narrow strip of deep sands along a short stretch of the Colorado River. Its habitat, too, is being lost to land clearing, over-grazing, and sand mining.

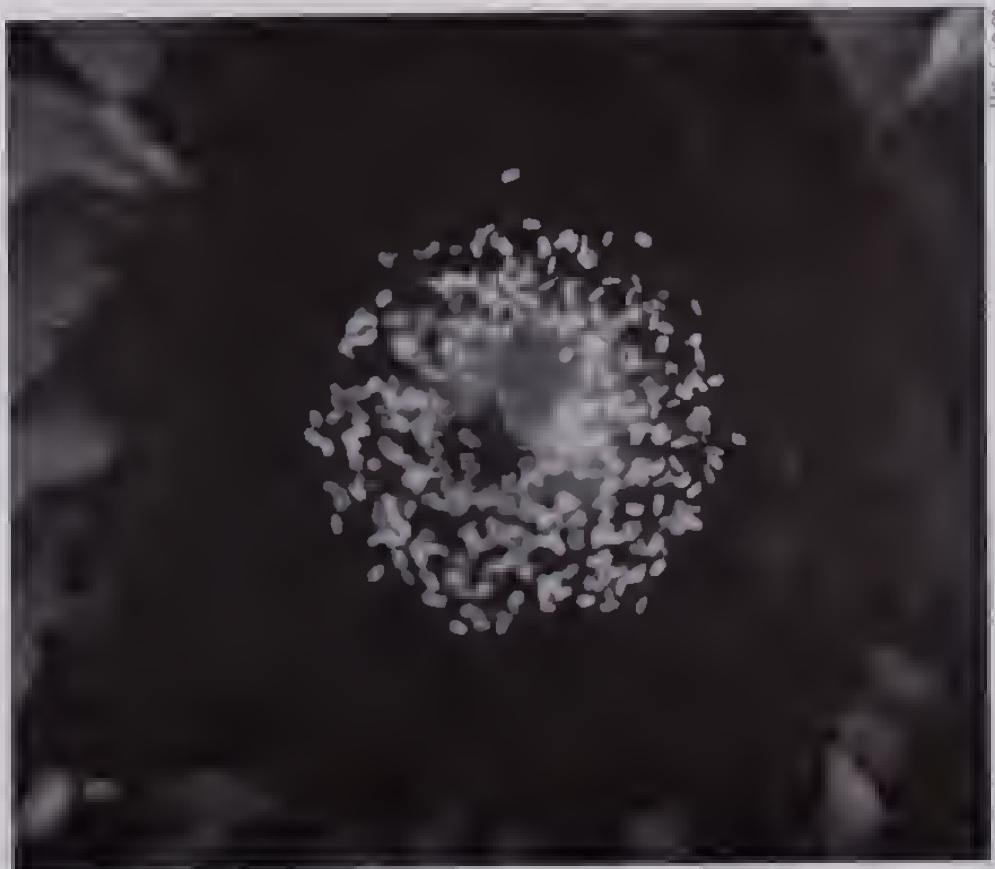
California is the state with the largest number of plants being considered for listing as either endangered or threatened. The purple blooms of the Santa Anna River woolly-star, captured by Levine's camera, occur today in only a few isolated areas. This member of the phlox family is facing threats from

urban development and large-scale agriculture and occupies a place on the federal endangered species list. The western lily, large-flowered fiddleneck, Antioch Dunes evening-primrose, and Santa Cruz Island bush-mallow face a similarly uncertain fate. Portraits showing the gracefully curling petals of the lily and the vivid golden-orange flower curls of the fiddleneck hint at just what a loss their extinction would be.

As noted in a recent *New York Times* article, a comprehensive assessment of plant endangerment conducted by the World Conservation Union has found that one in every eight plant species is imperiled. In the United States, twenty-nine percent of the country's 16,108 plant species are at risk. This loss of plant biodiversity could impact on future discoveries of medicines and will certainly have a disruptive effect on the planet's sensitive ecosystems. And unquestionably, the world would be a grim place without the loveliness of green plants and flowers to surround us.

*Rare Beauty* not only presents visitors with the unique opportunity to view exceptional images of some of the country's most threatened plants but also heightens our awareness of the necessity of species and habitat diversity.

The exhibition *Rare Beauty: America's Endangered Plants* will open on July 15 and run through October 4 in the second floor Akeley Gallery.



Black lace cactus (*Felnocereus reichenbachii*)



## The Earth as a Peppercorn: A Walk Through the Solar System

Sunday, July 12, 1:00 p.m.

Given the vastness of the solar system, it is difficult for us to imagine its exact dimensions. Join Robert Campanile and Phil Sollecito as they step outside the Museum to discover the distances among the planets using Planet-Walk, a 1,000-yard model that was devised in 1969 by astronomer/teacher Guy Ottewill. Come enjoy the outdoors and learn about the solar system. Program code: MM1-7.



## BiodiVERSEity

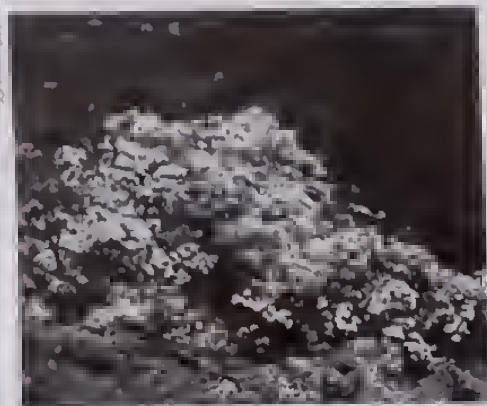
Friday, July 31, 6:30 p.m.

Every now and then, a gifted writer astutely describes our thoughts, feelings, and seemingly endless fascination about animals. Walk with Robert Campanile through the Museum's halls and listen to the words of naturalists, explorers, philosophers, novelists, and poets as their essays illustrate the wide spectrum of emotions we feel for animals. Program code: MM2-7.

## Members' Expeditions

The following series of programs focuses on the biodiversity of unique habitats in the tri-state area. Join Museum staff, scientists, and naturalists on fascinating educational adventures and learn more about the ecology of your own "backyard."

All expeditions, unless otherwise noted, include round-trip transportation (via charter bus from the Museum) and lectures. Pack a picnic lunch, wear appropriate clothing and sturdy shoes, and, if you care to, bring a camera and binoculars. A detailed itinerary, along with specific instructions, will be sent to all registered participants approximately two weeks prior to the program date.



Palisades Interstate Park

### Hudson Highlands

Saturday, June 6, 8:00 a.m.—5:00 p.m.

Come explore the fauna and flora in beautiful Harriman State Park, situated within the vast Palisades Interstate Park. Jack Focht, director of the Trailside Museum and Wildlife Center, has arranged several interesting nature hikes and walks that participants can take part in throughout the day. The Silver Mine ski center will serve as the base camp.

Tour members can choose to observe a beaver colony with Hope Ryden, naturalist and author of eight books on North American wildlife (including *Lily Pond: Four Years with a Family of Beavers*) or take a walk with naturalist Spider Barbour, who will discuss butterflies and the flora on which these insects dwell. Participants who enjoy examining artifacts will want to join archaeologist Edward Lenik on a hike to explore Native American rock shelters. Lenik is a noted expert on petroglyphs and prehistoric rock art. Sidney Horenstein, coordinator of the Museum's Environmental Programs, will also be on hand to lead

an expedition to the abandoned iron mines of the Hudson Highlands.

Program code: MM4-6. Fee: \$50; \$45 members (Full-day program without transportation). Program code: MM5-6. Fee: \$70; \$65 members (Full-day program including transportation).

### The New Jersey Pine Barrens

Saturday, June 13, 8:00 a.m.—6:00 p.m.

Designated as the nation's first National Reserve, the New Jersey Pine Barrens encompasses over one million acres. Far from "barren," the Pine Barrens is comprised of a diverse and complex array of habitats, including bogs, pygmy pine forests, cedar swamps, slow moving streams, and pine and oak woodlands. Participants will spend the day hiking through these distinct areas learning about plant and animal species native to it, including rose pogonia orchids, carnivorous plants, velvet ants, and pine snakes. The trip will also include a visit to a historic village managed by the Whitesbog Preservation Trust to learn about the cranberry and blueberry industries, and a talk by a local scientist on indigenous reptiles and amphibians.

Liz Johnson, ecologist and manager of the Metropolitan Biodiversity Programs at the Museum's Center of Biodiversity and Conservation, will lead the excursion. Program code: MM6-6. Fee: \$75; \$65 members.

### The Meadowlands

Friday, June 19, 9:00 a.m.—4:30 p.m.

Millions of people glance at the New Jersey Meadowlands en route to New

## Sterling Hill Zinc Mine

Saturday, June 27, 9:00 a.m.—5:00 p.m.

Join Joseph J. Peters, senior scientific assistant in the Museum's Department of Earth and Planetary Sciences, on a visit to one of the most unusual and enigmatic mineral deposits on our planet.

The Sterling Hill Zinc Mine and nearby Franklin Deposit, in Ogdensburg, New Jersey, contain examples of approximately 10 percent of all known minerals — over 430. After a thorough talk covering the mine and minerals, participants will explore the underground tunnels, including the magical Rainbow Tunnel with its brilliant fluorescent colors. The tour then proceeds to the Sterling Hill Mining Museum, which houses fascinating mining memorabilia. Collectors can take home samples of fluorescent minerals, found in the dumping areas, for a small additional fee. Pack a lunch, bring a sweater for the cool subterranean passages, and wear sturdy shoes. Program code: MM1-6. Fee: \$65; \$55 members.



Sterling Hill Mine, ground-level entrance called the Adit, bordered by ore cars

York City and dismiss it as a wasteland. Join John Quinn, naturalist, artist, and author of *Fields of Sun and Grass*, and learn to view this unique urban wilderness with a fresh perspective.

The trip will begin with an engaging talk at the Environmental Center, located in Richard W. DeKorte Park. During the day's hike, participants will visit Snake Hill and the Transco and Marsh Discovery trails; examine fishes, invertebrates, and aquatic plants; and enjoy spectacular vistas of the New York skyline.

Quinn will discuss the history of the meadowlands, from the geologic forces that shaped it to the current struggle to preserve its ecological integrity. Program code: MM7-6. Fee: \$60; \$50 members.



Snowy egret

### Black Rock Forest

Thursday, July 16, 8:30 a.m.—5:30 p.m.

Located in the Hudson Highlands near Cornwall, New York, Black Rock Forest is a thriving 3,785-acre natural woodland located less than two hours from New York City. Among other things, the forest serves as a base for educational and research institutions (including the Museum) that conduct scientific explorations there.



Black Rock Forest

During the day's hike, participants will visit a vernal pond; examine the effects of mammals and insects on forest habitats; explore the environmental influences on conifer, deciduous, and ridge-top territories; and learn about the threat facing the northern hemlock forests. John Brady, forest manager, will lead the trip. Program code: MM3-7. Fee: \$70; \$60 members.

### Geology & Fossils in Catskill, N.Y.

Tuesday, July 28, 8:00 a.m.—5:30 p.m.

Join Sidney Horenstein, coordinator of the Museum's Environmental Programs, on a trip to prospect for fossils in Silurian and Devonian rocks (approximately 400 to 365 million years old) around Catskill, New York. During the day, participants will visit the area known as the Little Folded Mountains, named for its resemblance to the Appalachian mountain range south of New York. Tour members will also explore beautiful Austin Glen, take in the spectacular views of the mid-Hudson Valley, and watch the Kaaterskill River flow over Haines Falls.

Bring a hammer and a chisel, newspapers in which to wrap your fossils, and a collecting bag to carry them home in. Program code: MM4-7. Fee: \$75; \$65 members.

## ROTUNDA

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June 1998

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## Celluloid City



Daybreak Express, by D.A. Pennebaker

In recognition of the 100th anniversary of Greater New York, the Museum will sponsor three evenings of remarkable films that depict the breadth, diversity, and sheer dynamism characterizing this extraordinary metropolis.

### July 9

*Broadway by Day* (1932), 9 min.  
A Twentieth Century Fox creation portraying the extravagance and frenetic energy of one of New York's most famous streets: Broadway.

*Go, Go, Go* (1962-64), 12 min.  
Experimental camera work and brisk pacing give Marie Menken's *Go, Go, Go* a sharp, edgy ambience that captures the esprit that is New York.

*Skyscraper* (1959), 20 min.  
In this work, filmmakers Shirley Clarke and Willard Van Dyke go behind the scenes to portray the construction of 666 5th Avenue, from the blueprint stage to the laying of steel girders.

*This Is New York* (1962), 12 min.  
Morton Schindel's and Miroslav Sasek's delightful adaptation of the children's

classic *This is New York*, portraying a French boy's discovery of the city.

*My Own Yard to Play In* (1959), 7 min.  
Director Patricia Joffe reveals how the urban landscape can be a wonderful playground for children.

*Ruckus Manhattan* (1976), (excerpt)  
Artist Red Grooms creates a whimsical portrait of some of the more emblematic sights of New York.

### July 16

*City of Contrasts* (1931), 28 min.  
Director Irving Bowning's campy romp through the various neighborhoods of New York City.

*The Window Cleaner* (1946), 7 min.  
A propaganda piece produced by the Office of War Information, which uses seductive imagery and jazz music to glamorize New York City's workforce.

*The Dodgers Sym-phony* (1998), 28 min.  
Filmmaker Pegi Vail takes a nostalgic look at the amateur musicians who played for the Brooklyn Dodgers and their fans at Ebbets Field.

*Can Collectors in New York* (1988), 20 min.  
Produced by DCTV Community Workshop, *Can Collectors* examines an anti-pollution measure we now take for granted. Interviews with supermarket owners, activists, homeless people, and lawyers reflect the law's diverse impact on city dwellers.

*New York, New York* (1990), 1 min.  
A public service announcement directed by Laura Belsey, which makes ironic use of the famous song "New York, New York" to highlight the plight of a homeless community living on New York's streets.

*Sundae in New York* (1983), 4 min.  
Director Jimmy Picker's fanciful clay animation short featuring some of New York's signature personalities, including Ed Koch, Frank Sinatra, Woody Allen, and Rodney Dangerfield.

### July 23

*Daybreak Express* (1953), 6 min.  
An early work of pioneer filmmaker D.A. Pennebaker that captures the extremes of the city by employing a variety of camera angles and lenses.

*Square Times* (1967), 7 min.  
Photographer Rudy Burckhardt, a quin-

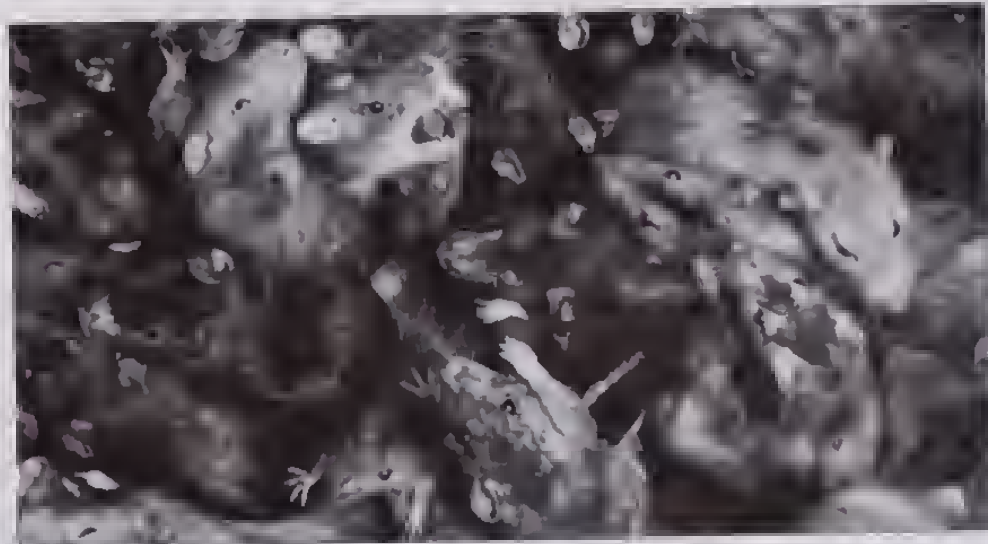
tesential New York documentary filmmaker, trains his lens on the rambunctious and clamorous nature of Manhattan's most bustling district.

*Lost Book Found* (1996), 36 min.  
A gritty, gorgeous treasure hunt that is sparked by the appearance of an encyclopedic notebook about the City. Filmmaker Jem Cohen will discuss the film after the screening.

*Rat* (1997), 53 min.  
From Mark Lewis, creator of *Cane Toads*, comes another hilarious but true animal bio-pic. The two most successful mammals on earth, humans and rats, compete for the same territory: New York City.

*Rouches Lullaby* (1973), 5 min.  
All New Yorkers have complicated relationships, even with the cockroaches that nest in their cabinets. Directed by Eli Noyes and Claudia Weill.

All film screenings are from 7:30-9:30 p.m. The fee for each evening is \$8; \$7 for members. The fee for the entire series is \$20; \$18 for members. Program code: ED982201. For further information, call (212) 769-5200.



Rat by Mark Lewis

## Cave of the Warrior

In the autumn of 1993, the Israel Antiquities Authority initiated an extensive archaeological campaign in the Judean Desert in which scores of archaeologists and workers surveyed more than 700 caves scattered throughout the harsh terrain. In the course of examining one of the caves, located in the cliffs of the lower Wadi el-Makkukh, near Jericho, expedition members made a spectacular discovery: an intact burial site of an adult male, most probably a warrior of high rank. According to carbon 14 tests, the skeleton, and the many rare objects found with it, dated to the early 4th millennium BCF (late Chalcolithic period).

In what promises to be a singular display of funerary objects from the Chalcolithic period, the Museum's upcoming exhibition, *Cave of the Warrior*, will feature many of the treasures found at Wadi el-Makkukh, which are rare both as an assemblage and as individual objects. Curated by Tamar Schick of the Israel Antiquities Authority, the exhibition will include many of the personal effects discovered with the skeleton, including a large plaited reed mat, three textiles, a coiled basket/bowl, a wooden bowl, a bow (which had been deliberately broken), a stick, a pair of leather sandals, and two flint items—a large Canaanite-type knife and fragments of a blade. The knife is of unusual size and symmetry and may have represented a status symbol. The objects, stained with red ochre (a well-known practice since prehistoric times), are technically sophisticated and of superior quality.

One of the most important items discovered was the warrior's bow. The well-designed and manufactured weapon is the sole representative of its kind anywhere and the earliest verification of Egyptian pre-dynastic depictions of such bows in art work. The bow had been ritually broken in accordance with the ancient mortuary rite of "killing" the bow, symbolizing the end of its use following the death of its owner.

The skeleton was found wrapped in elaborate and beautifully woven cloth consisting of three archaeologically complete (from end to end and from selvedge to selvedge) linen textiles. The largest outer wrapping textile is approximately twenty-two feet long and seven feet wide, with dark brown decorative hands and warp and weft fringes. It had been folded twice, forming an "envelope" that contained the corpse. Two smaller, similarly decorated textiles were found inside the wrapping sheet and appear to have been dress items for the dead man. The details on the fabrics show some affinities with Egyptian textiles.

*Cave of the Warrior* opens July 31 in the Library Gallery and runs through December 5.



Ceramic ossuary found at Peq'in



## Department of Education

### Lectures

**Music of the Caucasus Mountains**  
Wednesdays, June 10 & 17, 7:00–8:30 p.m.



Karachaewian dance in the Caucasus

This two-part lecture will examine the cultural and musical traditions of the Southern Caucasus region. Jeffery Werbock, composer and performer, has been studying the traditional music of Azerbaijan since 1972. During his talk, Werbock will demonstrate the varied forms and styles of the music of the Caucasus, as well as show slides. Program code: ED98218L. Fee: \$18; \$16 members (fee is for both lectures).

**Cave Biodiversity in Indonesia**  
Tuesday, June 23, 7:00–8:30 p.m.  
Zoologist Simon D. Pollard will present a lecture about his exploration of Deer Cave in Gunung National Park on the island of Borneo. Pollard, who specializes in photographing spiders and insects, is a professor at the University of Canterbury in New Zealand. The presentation will be accompanied by slide illustrations. Program code: ED98219L. Fee: \$12; \$10 members.

### Workshops

**Photographing Biodiversity**  
Saturday, June 20, 1:00–3:00 p.m.  
Zoologist Simon D. Pollard will demonstrate some of the professional techniques used in photographing insects and spiders. Pollard is a professor at the University of Canterbury, New Zealand, and a contributor to *Natural History Magazine*. Participants should bring their own equipment. Program code: ED98331X. Fee: \$30.

### Walking Tours

**Touring Fort Washington**  
Saturday, June 13, 1:30–3:30 p.m.  
One of Manhattan's most beautiful residential neighborhoods is nestled on the cliffs just south of Fort Tyron Park, site of a Revolutionary War battle. There will be a tour of the picturesque buildings within this area, focusing on two pioneering middle-class apartment complexes: Hudson View Gardens and Castle Village. Participants will also explore Fort Tyron Park, with its spectacular garden and views across the Palisades. The Cloisters is also nearby. Tour guide Andrew S. Dolkart currently teaches at Columbia University and has recently published *The Guide to New York City Landmarks*. Program code: ED98332X. Fee: \$12; \$10 members.

**Living on Central Park West**  
Sunday, June 14, 1:30–3:30 p.m.  
On this tour, participants will visit some of the numerous houses of worship in the upper Westside area around 86th

Street and Central Park West. There will also be discussion about the various architectural styles of the buildings along the park, their historic context, and the diverse lives and lifestyles of the local neighborhood residents. Program code: ED98316X. Fee: \$12; \$10 members.

### The East Sixties: High Aspirations amid Grandeur

Sunday, June 28, 1:30–3:30 p.m.  
Explore one of Manhattan's most elegant neighborhoods: the east sixties. The tour will include visits to the Church of Saint Vincent Ferrer, Temple Emanu-El (the largest synagogue in the country), Franklin Delano Roosevelt's townhouse, and the Metropolitan Club on Fifth Avenue. Program code: ED98317X. Fee: \$12; \$10 members.

### Field Trips

**Archaeology of the Old City**  
Saturday, June 13, 10:30 a.m.–4:30 p.m.  
On this bus trip, participants will explore Chatham Square, the African burial ground, City Hall, Lovelace Tavern, Trinity and St. Paul's churches, Wall Street, and One Broad Street Plaza. Guide: archaeologist Joan H. Deistmar. Program code: ED98329X. Fee: \$65; \$59 members.

**West Edge of New York Harbor**  
Tuesday, June 16, 6:00–9:00 p.m.  
On this cruise, participants will explore the Morris Canal Basin, travel past Liberty Island and the Statue of Liberty, and enter the various marine terminals along the Bayonne Peninsula. There will be commentary about how these terminals contributed to the growth of New York Harbor. Participants should bring their own box dinner. Snacks will be available on the boat. Guide: Sidney Horenstein, geologist and coordinator of the Museum's Environmental Programs. Program code: ED98324X. Fee: \$24; \$21 members.

### Circling Staten Island

Saturday, June 20, 11:00 a.m.–4:00 p.m.  
Join Sidney Horenstein, geologist and coordinator of the Museum's Environmental Programs, on a boat trip around Staten Island. The cruise will pass by the coastal hills of Kill van Kull, the Prall and Swinburne, Hoffman, and Shooter Islands before turning south into Raritan Bay. Tour participants will learn about the ecology, as well as the colonial history, of Staten Island. Program code: ED98324X. Fee: \$40; \$36 members.

### New York's Military Archaeology

Saturday, June 20, 10:30 a.m.–4:30 p.m.  
This bus trip includes visits to Castle Clinton at South Ferry, Fort Jay, and Castle William on Governors' Island. Richard Hunter, president of Hunter Research Associates, will conduct the tour. Program code: ED98329X. Fee:



### Manhattan Map Casting Workshop

Saturday, July 25, 1:00–4:00 p.m.  
In recognition of the 100th anniversary of the founding of Greater New York, Pamela Popeson, artist and former director of the Museum's Fossil Reproduction Department, will conduct a mapmaking workshop. Participants will create a bas-relief, topographical map of Manhattan using special paper and plaster casting materials and prepared plaster molds. The dimensions of the completed project will be approximately 8" x 10" x 1". All materials, which are nontoxic and washable, will be provided. Location: Edith C. Blum Lecture Room. Program code: MM5-7. Fee: \$32; \$28 members.



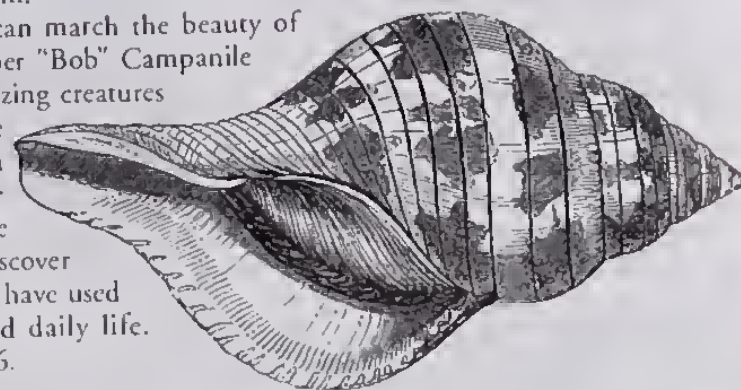
### All for One and One for All

Friday, June 12, 5:30 p.m. & 7:30 p.m.  
Come and celebrate the opening of the Museum's Hall of Biodiversity, a spectacular new 11,000-square-foot permanent exhibition hall that brings together the latest achievements in science and technology. Among other things, the Hall will address the challenges society faces if it is to preserve the variety of the planet's living things, and offer solutions on how to protect against the further loss of biodiversity. Most important, however, is the message that species and habitat diversity is critical to our lives and to the larger world around us, and it must be conserved.

Robert Campanile will offer two exciting tours through the Hall of Biodiversity. Each tour is limited to forty people. Program code: MM3-6.

### Shell Shock

Friday, June 26, 6:30 p.m.  
Few works of nature can match the beauty of shells. Join beachcomber "Bob" Campanile as he explores the amazing creatures that produce the seashells we hunt for in summer during a tour through several of the Museum's halls, and discover how different cultures have used shells in their art and daily life. Program code: MM2-6.



### Life in the Balance

Tuesday, June 2, 7:00–8:30 p.m.  
From the depletion of the Brazilian rainforests to holes in the ozone layer and the disappearance of the spotted owl, extensive coverage of recent environmental crises has made the public increasingly aware of the perilous threats facing the environment. What do these crises have to do with us and the way we live our daily lives? Niles Eldredge, curator in the Museum's Department of Invertebrates and one of the principal curators for the new Hall of Biodiversity, will attempt to address these issues in a lecture centered around his new book, *Life in the Balance*.

Eldredge will discuss four basic questions concerning biodiversity: What is biodiversity? Why should we care about it? What is the diversity of life on this planet? What can we do to preserve it? In his book, Eldredge describes biodiversity as that "rich spectrum of life—all the world's species, ranging from bacteria to the giant redwoods; from the algae of the sea to the wild dogs of the African savannas; from the worms of the soil to the falcons of the air." By illuminating the diversity and interconnectedness of all living things on the planet, Eldredge shows how our fate is inextricably linked with the over thirteen million living species with whom we share the planet.

Eldredge, one of the world's foremost paleontologists, is the author of numerous books, including *The Miner's Canary*, *Fossils*, and *Time Frames: The Evolution of Punctuated Equilibria*.

The lecture will be held in the Kaufmann Theater. Program code: MM8-6. Fee: \$10; \$8 members.



Niles Eldredge



## Pagdiriwang: A Philippine Centennial Celebration

In recognition of the 100th anniversary of Philippine independence, the Museum will present an outstanding array of craft demonstrations, music and dance performances, children's workshops, films, and lectures. Events will take place in the Hall of Ocean Life, Kaufmann Theater, and Leonhardt People Center on Saturday, June 6, from noon to 7:00 p.m.

### Hall of Ocean Life

#### Santacruzan Procession and Putong

A re-creation of a Philippine religious festival, the Santacruzan Procession consists of actors portraying biblical characters in search of the Holy Cross. The procession will be followed by Putong, a traditional Philippine ritual where honored guests are offered flowers and serenaded with songs and dances. 12:00–1:00 p.m.

#### Performances

The University of the Philippines Alumni and Friends Rondalla will play indigenous music on traditional string instruments; Gloria Papin will sing popular songs from Bicol province; Angeli Florentino, a Filipino American, will sing traditional and popular Philippine songs in Tagalog; the Philippine Dance Company of New York will perform several Hispanic and lowland dances; and Kayumanggi Choral, an award-winning choral group, will perform a number of songs from several of the Philippine islands. 1:00–3:00 p.m.

A demonstration of the Tinikling, the national dance of the Philippines; Leyte Normal University Theater, considered one of the finest ballet and modern dance companies of the central Philippines, will perform; Ramon Acoymo, a leading Filipino tenor, will sing popular love ballads; the Reflections Choral Ensemble from New York will perform traditional music from the Philippines; the Bakbakan International group will demonstrate one of the martial art forms of Southeast Asia; and Kinding Sindaw will present some of the indigenous dances of the Maranao people from the island of Mindanao. 3:00–5:30 p.m.

Demonstration of a Filipino children's game; the Rebudal Dance Group, a Filipino American troupe, will combine ethnic dance and music with contemporary modern rhythm and movement; and Leyte Normal University Theater of the Philippines will perform (See above). 5:30–6:45 p.m.

### Hall of Ocean Life, Balcony

An art workshop on traditional Philippine Christmas lanterns; a display of regional and national dishes of the Philippines, including *adobo*, a dish of marinated chicken or pork, and *pancit*, a Chinese-influenced noodle dish; a demonstration by Rene Tanoy of different children's games, including *Laksong Tinik* (Jumping Over Spines), *Patintero* (Touch-and-Go), and *Pilco* (Hop-scotch); and a book exhibition displaying contemporary and out-of-print works from the Philippines. 12:00–5:00 p.m.



Potri Ranka Manis & Kinding Sindaw

### Film Program, Kaufmann Theater

*Minsan Lang Sila Bata* (Just Once Were They Children, 1996), 50 min. 12:00 p.m.  
Directed by Dina Carolino in collaboration with Sadhana Buxani; Producers: Ateneo Center for Social Policy and the Archdiocese of the Manila Labor Center.  
An arresting documentary about the exploitation of child labor in the Philippines.

*Sakay* (1993), 120 min. 1:00 p.m.  
Director: Raymond Red; Producer: Anna Marie Datuin  
A documentary film on the life of Macario Sakay, revolutionary leader and founder in 1904 of the Tagalog Republic. Datuin will discuss the film after the screening.

*The Philippines: Life, Death and Revolution* (1986), 55 min. 3:30 p.m.  
From the smoking garbage heaps of Manila to the go-go girls of Clark Airbase to a rebel army camp in the mountains, filmmakers Jon Alpert and Maryann De Leo vividly document the complex nature of life in the Philippines. Produced by DCTV, *Life, Death and Revolution* received an Emmy Award in 1986. The filmmakers will be available for discussion after the screening.

*Ngnyamyam* (1992), 5 min. 5:30 p.m.  
Directors: Lydia B. Brown and Josephine Atienza; Artistic Director: Consuelo Fabregas; Producers: Philippine Children's Television Foundation, in conjunction with the United Nations.

A clay animation video that tells the story of Pakaskas, a delicious edible planet. The hero, Inggolok, warns his fellow citizens that spending the day eating up the planet's resources will lead to disaster.

*A Cyber-Tale of Three Cities* (1997), 28 min. 5:40 p.m.  
Producers: Richard Sydenham and Chaim Litewski.  
Using the internet to talk to one another, three teenagers share their common concerns for the environment. They encourage one another to become involved in urban planning projects in Fortaleza, Brazil; Beirut, Lebanon; and Manila, Philippines.

*The Ifugaos of the Northern Philippines: Family Planning Gets a Boost; Teaching Fisherman to Be Sea Farmers; Vocational Rehabilitation* (1996), 15 min. 6:15 p.m.  
A series of four videos produced by the United Nations and executive producer/director Danila Mendoza. The videos document government programs in the Philippines.

All programs are free with Museum admission and do not require a ticket. All seating is on a first-come, first-served basis. For further information, call 212-769-5315 9:00 a.m.–5:00 p.m. weekdays. This program is co-sponsored by the Philippine Centennial Coordinating Council Northeast USA.



The Philippines: Life, Death and Revolution



Central Park West at 79th Street  
New York, NY 10024-5192  
For more information call  
800-462-8687 or (212) 769-5700



As always, Museum members receive a 10% discount on all their purchases.

Mon., Thurs. & Sun. 10:00 a.m. - 5:45 p.m.  
Fri. & Sat. 10:00 a.m. - 8:45 p.m.

Tues. - Fri. 11:00 a.m. - 4:00 p.m.

Dinet Saurus Fast Service Eatery	
Daily	11:00 a.m. - 4:45 p.m.
Snack Carts	
Sat. & Sun.	11:00 a.m. - 4:00 p.m.
Ocean Life Cafe	
Mon. - Fri.	11:30 a.m. - 3:30 p.m.
Fri. - Sat.	5:00 p.m. - 7:30 p.m.
Sat. - Sun.	11:00 a.m. - 4:00 p.m.

There are many wild places in the New York area, and the Center features these habitat's plants and live animals. Closed holidays.

Tues. - Fri. 2:00 p.m. - 4:30 p.m.  
Sat. & Sun. 1:00 p.m. - 4:30 p.m.  
Thursday storytelling 3:00 p.m.

Mon. - Thurs. & Sun. 10:00 a.m. - 5:45 p.m.  
Fri. & Sat. 10:00 a.m. - 7:45 p.m.

Mon. - Fri. 10:00 a.m. - 4:45 p.m.  
Sat. & Sun. 10:00 a.m. - 5:45 p.m.

**Entrances**  
During Museum hours visitors can enter the building through the 77th Street entrance, the first- and second-floor Roosevelt Memorial Hall entrances (79th Street and Central park West), or through the subway entrance. Visitors attending programs after hours can enter the building through the security entrance at 79th Street and Central Park West, down the driveway. Tickets can be picked up or purchased at the ticket desk just inside the entry.

**Parking**  
The visitor parking lot is temporarily closed. For public transportation and local parking information, call (212) 769-5606. The Museum is well served by public transportation.

Museum Information	(212) 769-5100	Membership Office	(212) 769-5606
Planetarium Information	(212) 769-5900	Members' Birthday Parties	(212) 769-5013
Education Department	(212) 769-5310	Planned Giving Office	(212) 769-5119
Discovery Tours	(212) 769-5700	*toll-free outside NYState	(800) 453-5734
*toll-free outside NYState	(800) 462-8687	Central Reservations	(212) 769-5200
Development	(212) 769-5151	Museum Shop	(212) 769-5150
Library Services	(212) 769-5400	Communications	(212) 769-5800
Volunteer Office	(212) 769-5566	Natural History Magazine	(212) 769-5500
IMAX®	(212) 769-5034	World Wide WebSite	<a href="http://www.amnh.org">http://www.amnh.org</a>

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Credit Card Number \_\_\_\_\_ Exp. Date \_\_\_\_\_

Signature \_\_\_\_\_

By Phone: Call (212) 769-5200 six days a week -- Monday through Friday from 8:00 a.m. to 6:00 p.m. and Saturday from 10:00 a.m. to 6:00 p.m. Have your credit card and membership category ready when you call.

By Mail: Send the registration form below to Central Reservations, American Museum of Natural History, Central Park West at 79th Street, New York, N.Y. 10024-5192. Make checks payable to the American Museum of Natural History.



## AMNH's Dean of Science Honored

Last month, the Museum's Dean of Science Craig Morris was honored by two prestigious societies of distinguished scholars. On April 11th, Morris was elected a fellow of the American Academy of Arts and Sciences, an honorary society that recognizes achievement in the natural sciences, social sciences, arts, and humanities. Three weeks later, Morris was elected a fellow of the National Academy of Sciences, which honors distinction in scientific research. Recognition by either of these societies is significant; virtually simultaneous acclamation by both is exceptional.

In these appointments, Morris joins, on the scientific staff, Curator David Hursr Thomas (National Academy of Sciences) and Curator *Emeritus* Norman D. Newell (American Academy of Arts and Sciences and National Academy of Sciences).

## Changes in Museum Membership Dues and Structure

As of July 1, 1998, Museum membership dues will increase for the first time since 1991. We believe, however, that you will continue to find that your AMNH membership offers great value and an incredible array of benefits throughout the year. The revised dues amounts will be as follows:

**Family \$75; Contributor \$125; Supporter \$300; and Sponsor \$600.**

Family and higher-level members will receive two additional special benefits: imaginatively designed Junior Member cards for children (available upon request) and an invitation to our newly instituted annual Family Holiday Party.

Two new categories of Museum membership will also be available:  
**Individual and Dual.**

For an Individual membership of \$45, members will receive unlimited complimentary admission to the Museum for one; unlimited discounts at the IMAX® theater for one; ten issues of *Natural History Magazine*; a one-year subscription to Rotunda; discounts on Museum shop and restaurant purchases; opportunities to participate in special programs, lectures, field trips, workshops, and members-only behind-the-scenes tours; and invitations to preview exhibitions for members and one guest.

A Dual membership of \$60 includes all of the Individual membership benefits plus unlimited complimentary admission to the Museum and discounts at the IMAX® theater for two adults.

The Associate Program will continue to be administered by *Natural History Magazine*. Subscribers to this program will receive ten issues of *Natural History*, one complimentary pass for both Museum admission and the IMAX® theater, discounts on Museum shop purchases, and special magazine offers.

## Cafe News

The Garden Cafe has been relocated to the Hall of Ocean Life.

We look forward to seeing you under the Blue Whale at the new Ocean Life Cafe.

Diner Saurus will be temporarily closed on July 1. A reopening date will be posted in the near future.

## SET ASIDE A NEST EGG FOR YOUR RETIREMENT NOW...



Artist's re-creation of an oviraptor protecting its nest, based on fossils discovered by AMNH scientists in the Gobi Desert in 1993. (Illustration by Mick Ellison for the AMNH)

## AND PROVIDE FOR THE AMERICAN MUSEUM OF NATURAL HISTORY'S FUTURE



With a gift to the Museum that provides lifetime income, you can:

- receive income for life, for yourself and/or a loved one;
- enjoy an immediate income tax deduction;
- minimize or eliminate capital gains tax when appreciated stocks are sold to re-invest.

For more information, please call (800) 453-5734 or return this confidential reply form to the Office of Planned Giving, American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192.

- ☐ Please send me information on gifts that provide lifetime income.  
☐ Please send me information on including a bequest to the Museum in my will.  
☐ I have already included a provision for the Museum in my estate plans.

Name

Address

Phone: Home:  Office:

Your reply is confidential and implies no obligation.



## Members' Birthday Parties at the Museum

Not sure what to do this year for your child's birthday? Why not try a birthday party he or she won't soon forget? All you have to do is choose from one of our many stimulating party themes—and bring the cake. We'll take care of the rest.

You might choose our most popular theme, the Dinosaur Party. The group explores the famous fourth-floor dinosaur halls with a birthday party coordinator and then heads to the party room, where they learn how fossils are formed, handle casts of fossils, and make their own fossil cast to take home.

Or perhaps your child and his or her guests will opt for the Safari Party. Children at this special event go on guided hall tours and learn about African natural history and cultures, then get some hands-on experience with several African objects from the Museum's collections. They play safari party games and make their own African masks.

Among our other exciting party themes are North American Mammals, Fossil Mammals, Plains Indians, and Leaping Lizards.

All parties last two hours and include an introduction to and demonstration of artifacts, a hall tour, arts and crafts projects, games, storytelling, refreshments, and party favor bags. The parties are limited to Members at the Contributor level (\$125 a year) and above. The fee covers all materials and the services of Museum staff, who customize each event to suit the individual needs of the birthday child and his or her family.

For more information, please call (212) 769-5154.

The Membership Department would like to thank the following young Members who celebrated their birthdays here recently: In May—Tobias Citron, David Gore, Cliff Brannan, Pheobe Nir, William Mosconi III, Robert Antonelli, Charlie Samuels and Elizabeth Brannan.



1998  
rican Museum of Natural History

*Spirits in Steel: The Art of the Kalabari Masquerade*  
Gallery 77 through October 12.  
*Africa: Explorations and Expeditions*  
Library Gallery through July 25.  
*King, Chief and Women of Power*  
Akeley Gallery through June 30.



Mon

Tues

Wed

Thurs

Fri

Sat

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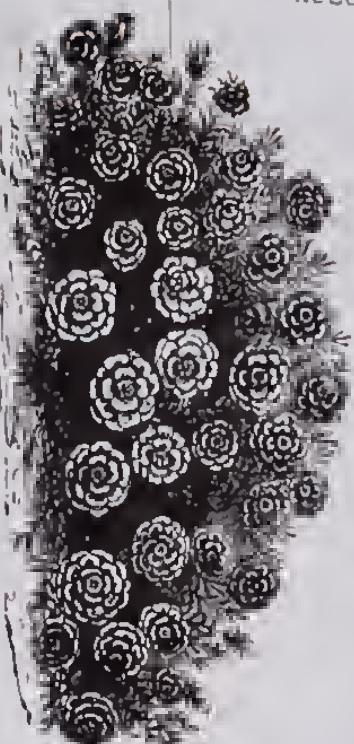
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5

6

**Life in the Balance**  
Lecture by Niles Eldredge.  
Kaufmann Theater; 7:00 p.m.  
Program code: MM8-6

**New York Map Society**  
Room 319; 11:00 a.m.  
**Hudson Highlands**  
Tour of Harriman State Park; 8:00  
a.m.-5:00 p.m. Program code:  
MM4-6 & MM5-6



9

**Geology: Cruise up the Hudson River**  
Sunset cruise up the Hudson with  
Sidney Horensztajn; 6:00-9:00 p.m.  
Program code: ED98323X

10

**New York Mineralogical Society**  
Leonhardt People Center; 5:30 p.m.  
**Music of the Caucasus**  
Lecture on the music traditions of the  
Southern Caucasus; 7:00-8:30 p.m.  
Program code: ED98218L

11

**12**  
**All for One and One for All**  
Tour of new Hall of Biodiversity  
with Robert Campanile; 5:30 &  
7:30 p.m. Program code: MM3-6

13

**New Jersey Pine Barrens**  
Hike through the Pine Barrens; 8:00 a.m.-6:00 p.m.  
Program code: MM6-6

14

**New York Shell Club**  
Edith C. Blum Classroom; 2:00 p.m.

15

16

**Linnaean Society of New York**  
Leonhardt People Center; 7:30 p.m.

17

**Music of the Caucasus**  
Lecture on the music traditions of the  
Southern Caucasus; 7:00-8:30 p.m.  
Program code: ED98218L

18

19

**The Meadowlands**  
Nature tour through the Mead-  
owlands; 9:00 a.m.-4:30 p.m.  
Program code: MM7-6

20

**Photographing Biodiversity**  
Photography workshop with zoologist Simon  
D. Pollard; 1:00-3:00 p.m.  
Program code: ED98331X

21

22

23



24

25

26

**New York Stereoscopic Society**  
Edith C. Blum Classroom; 7:00 p.m.  
**Shell Shock**  
Hall tour with Robert Campanile;  
6:30 p.m. Program code: MM12-6

27

**Museum Magic theme for the month: Fossil Finds.**  
Discovery Room located in the Leon-  
hardt People Center; 2:00-4:30 p.m.  
**Sterling Hill Zinc Mine**  
Visit to Sterling Hill Zinc Mine;  
9:00 a.m.-5:00 p.m.  
Program code: MM1-6

28

**Museum Magic theme for the month: Fossil Finds.**  
Discovery Room located in the Leon-  
hardt People Center; 2:00-4:30 p.m.

29

30





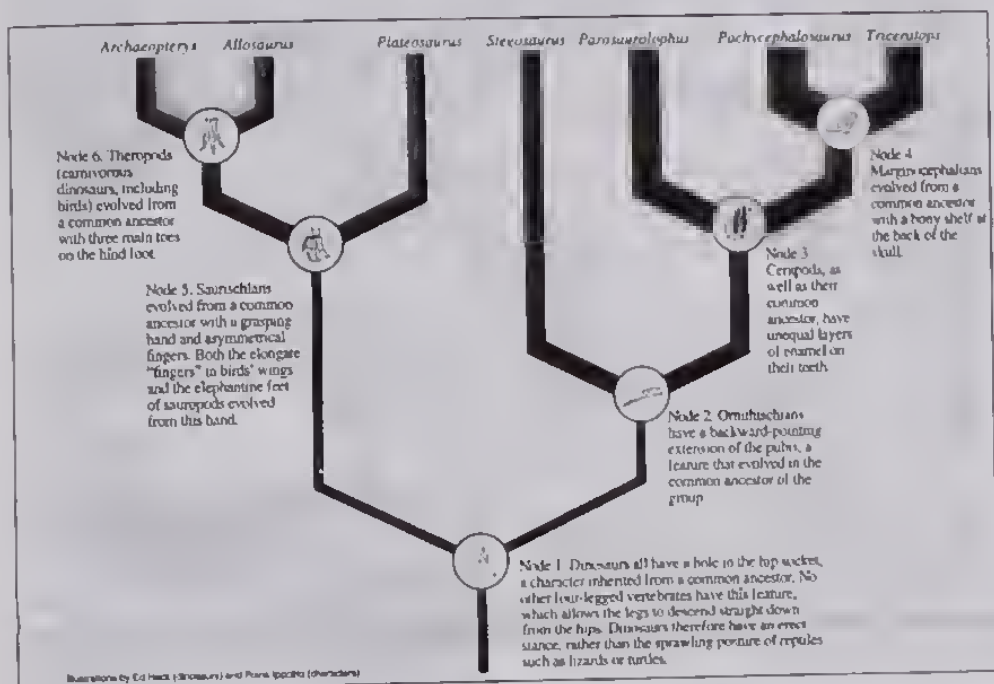
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# ROTUNDA

For Family/Dual and Higher Members of the American Museum of Natural History

Vol. 23, No. 7 July/August 1998

## Cladistics: A Way to Organize Nature



A cladogram featuring dinosaurs grouped according to common characteristics

There are so many species of animals, plants, and microorganisms on earth that scientists are not sure of the exact number—anywhere from seven to twenty million. When scientists study biodiversity, they explore how living things interact with their environment and with one another. They also investigate how species are related to one another and how they have changed over billions of years.

When you visit the new Hall of Biodiversity, you will see an amazing assortment of creatures: flamingos, turtles, coral, penguins, fish, kangaroos, tigers, bats, lizards, octopus, butterflies, toads, mollusks, and owls, to name just a few. There are so many different kinds of life on earth that it is hard to keep track of them all. How can scientists tell which animals are related? What methods do they use to organize them into groups? Determining evolutionary relationships is important because it helps scientists identify life forms and evolutionary patterns among species.

Since the beginning of time, people have tried to sort different kinds of life into useful categories. Aristotle organized all living things into fourteen groups, arranging the creatures in each cluster by size. Charles Darwin attempted to organize animals according to an evolutionary system. Throughout the late 1800s and early 1900s, many scientists used a method called evolutionary taxonomy. During the late 20th century, scientists have used a number of different methods

for categorizing life forms, primarily based on overall similarity of characteristics.

Today, many scientists have discontinued determining evolutionary relationships according to particular time lines. One of the reasons for this is that fossil records do not exist for every animal's predecessors. And even if the fossil records do exist, it is usually very difficult to determine which species gave rise to others. Moreover, an animal can engender markedly different descendants that have little in common. A lungfish and a cow are more closely related than a lungfish and a salmon, for example. A time line can tell us when a certain animal appeared or changed, but it cannot reveal which animals are related.

At the Museum, scientists use a method of determining evolutionary relationships known as cladistics. Developed over the past forty years, cladistics is the process of sorting animals by common characteristics. To test evolutionary relationships, scientists use any feature of an organism, from its bone structure to its DNA. For example, a specialized forelimb structure unites certain meat-eating dinosaurs with birds.

One of the key aspects of cladistics is the use of characteristics that reveal the hierarchical patterns of organisms. This method is more objective than using characteristics that have a broad range of similarity.

Scientists can see a pattern in the diversity of life when they look for characteristics that are shared by differ-

ent organisms. This pattern of characteristics can be used to arrange organisms into smaller groups contained within larger groups.

This arrangement of groups within groups results from organisms evolving when descendants inherit new, or derived, characteristics from their ancestors. By studying the distribution of these derived characteristics, scientists can determine the order in which they evolved and thereby interpret the sequence of evolutionary history.

Ian Tattersall, associate curator in the Museum's Department of Anthropology and creator of the Hall of Human Biology and Evolution, and Niles Eldredge, curator in the Museum's Department of Invertebrates, discuss the advantages of using a cladistics model in their article *Fact, Theory, and Fantasy in Human Paleontology* (*American Scientist*, Vol. 65, 1977). As the authors explain, although scientists are constantly discovering new hominid fossils, the origin of modern humans is still a mystery. "Extraordinarily difficult problems are encountered in recognizing...ancestors. It can be shown that two groups of organisms are closely related, but it cannot be proved that two taxa are both the daughters of a specified parent." Because it is impossible to prove the ancestry of modern humans at this point, a linear chart leaves gaps; however, a cladistics chart shows the "distribution of derived characters indicating evolutionary relationship" without relying on incomplete linear descent data.

In *Why Cladistics* (*Natural History Magazine*, July 1981), authors Lowell Dingus, Miranda K. Smith,

and Eugene Gaffney (curator in the Museum's Department of Vertebrate Paleontology) note the Museum's use of cladistics to organize vertebrate, mammal, and dinosaur exhibits on the fourth floor. "We do not seek to specify ancestors and descendants. We only hypothesize which animals are most closely related to each other.... Rather than juxtaposing creatures that lived at the same time, we have grouped them according to their evolutionary relationships [shared features]. The American Museum [of Natural History] is the first institution to present a major exhibition based on cladistics."

To visually demonstrate cladistics, scientists use charts called cladograms. Cladograms portray the development of a species, its relationship to other species, and the rise of any new, distinguishing features. On the Museum's fourth floor, dinosaur cladograms are "etched" into the ground alongside the exhibits. Additionally, three-dimensional models are used to display each new advanced feature. Despite the fact that cladograms change often as new fossil discoveries are made, Dingus, Smith, and Gaffney concur that cladistic methodology is still "a good, objective method."

Cladistics helps scientists understand the relationships among animals—living or extinct. And as our awareness of the importance of conserving biodiversity increases, scientists will continue to study animals to determine these relationships. Biodiversity and interdependence are the keys to life on earth.

By Zosia Zaks



Species represented in the Hall of Biodiversity's Spectrum of Life display



## Members' Programs

### The Earth as a Peppercorn: A Walk Through the Solar System

Sunday, July 12, 1:00 p.m.

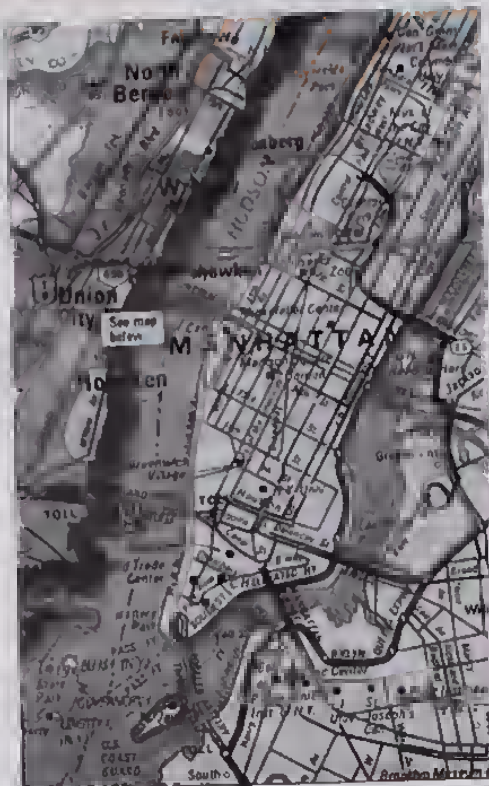
Given the vastness of the solar system, it is difficult for us to imagine its exact dimensions. Join Robert Campanile and Phil Sollecito as they step outside the Museum to discover the distances among the planets using Planet-Walk, a 1,000-yard model that was devised in 1969 by astronomer/teacher Guy Ortelwell. Come and learn about the solar system. Program code: MM1-7. Free; members only.



### BiodiVERSEity

Friday, July 31, 6:30 p.m.

Every now and then, a gifted writer astutely describes our thoughts, feelings, and seemingly endless fascination about animals. Walk with Robert Campanile through the Museum's halls and listen to the words of naturalists, explorers, philosophers, novelists, and poets as their essays illustrate the wide spectrum of emotions we feel for animals. Program code: MM2-7. Free; members only.



### Manhattan Map Casting Workshop

Saturday, July 25, 1:00-4:00 p.m.

In recognition of the 100th anniversary of the founding of Greater New York, Pamela Popeson, artist and former director of the Museum's Fossil Reproduction Department, will conduct a mapmaking workshop. Participants will create a bas-relief, topographical map of Manhattan using special paper and plaster casting materials and prepared plaster molds. The dimensions of the completed project will be approximately 8" x 10" x 1". All materials, which are non-toxic and washable, will be provided. Location: Edith C. Blum Lecture Room. Program code: MM5-7. Fee: \$32; \$28 members.

### Members' Expeditions

The following series of programs focuses on the biodiversity of unique habitats in the tri-state area. Join Museum staff, scientists, and naturalists on fascinating educational adventures and learn more about the ecology of your own "backyard."

All expeditions, unless otherwise noted, include round-trip transportation (via charter bus from the Museum) and lectures. Pack a picnic lunch, wear appropriate clothing and sturdy shoes, and, if you care to, bring a camera and binoculars. A detailed itinerary, along with specific instructions, will be sent to all registered participants approximately two weeks prior to the program date.

Bring a hammer and chisel, newspapers in which to wrap your fossils, and a collecting bag to carry them home in. Program code: MM4-7. Fee: \$75; \$65 members.



### Exploring the Connecticut Countryside

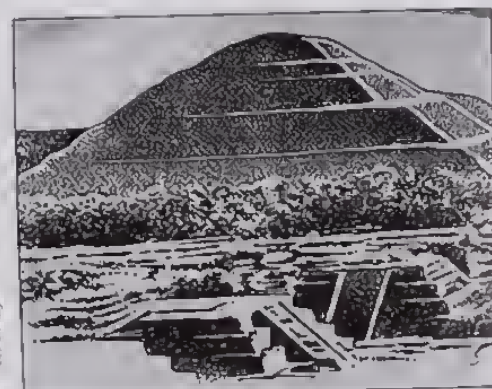
Thursday, August 27, 8:00 a.m.-5:00 p.m.

Join naturalist June Myles for a summer day in the idyllic Connecticut countryside. Participants will explore Devil's Den Preserve, the largest expanse of undeveloped woodland in southwest Connecticut. Home to over 140 species of birds and a wide variety of plant life, the preserve's forest stretches along a mosaic of north-south rocky ridges separated by valleys with intermittent streams and wetlands. After hiking the trails with guides from the preserve, the tour will stop at the village of Cannon Crossing before moving on to the Birdcraft Museum and Sanctuary. The museum was founded in 1914 by Mabel Osgood

### Nature's Digressions

Friday, September 11, 6:30 p.m.

Many times nature deviates from society's norms. Body types that don't fit the standard are often singled out, and not always for praise. Join Robert Campanile as he tours the Museum's halls and surveys nature's anatomical digressions. Program code: MM1-9. Free; members only.



### Black Rock Forest

Thursday, July 16, 8:30 a.m.-5:30 p.m.

Located in the Hudson Highlands near Cornwall, New York, Black Rock Forest is a thriving 3,785-acre natural woodland located less than two hours from New York City. Among other things, the forest serves as a base for educational and research institutions (including the Museum) that conduct scientific explorations there.

During the day's hike, participants will visit a vernal pond; examine the effects of mammals and insects on forest habitats; explore environmental influences on conifer, deciduous, and ridgetop territories; and learn about the threat facing the northern hemlock forests. John Brady, forest manager, will lead the trip. Program code: MM3-7. Fee: \$70; \$60 members.

### Family Birding in Jamaica Bay Wildlife Sanctuary

Saturday, August 22, 9:00 a.m.-4:00 p.m.

One of the more enjoyable ways to enjoy nature and develop one's awareness of environmental issues is to go bird watching, or "birding." And birding is a great way to teach kids about some of nature's most splendid creatures, too. Join Museum naturalist Steve Quinn, his wife Linda, and their two children on a trip to the Jamaica Bay Wildlife Sanctuary, a well-known birding spot located in the New York City area. Participating parents and their kids will spend the day searching for and observing such birds as herons, ibis, geese, and ducks, among others. A spotting scope will be available. Program code: MM3-8. Fee per person: \$32 for adults; \$25 for children.



Wright, who played a significant role in the founding of the American conservation movement. Program code: MM4-8. Fee: \$70; \$60 members.

### Sacred Places

Friday, September 25, 6:30 p.m.

Join Robert Campanile on a Museum hall tour designed to inspire and enchant, and learn about some of the temples, mountains, and shrines ancient peoples revered as holy. Program code: MM2-9. Free; members only.

## ROTUNDA

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Rosemary Caulk — Director of Membership

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### Geology & Fossils in Catskill, New York

Tuesday, July 28, 8:00 a.m.-5:30 p.m.

Join Sidney Horenstein, coordinator of the Museum's Environmental Programs, on a trip to prospect for fossils in Silurian and Devonian rocks (approximately 400 to 365 million years old) around Catskill, New York. During the day, participants will visit the area known as the Little Folded Mountains, named for its resemblance to the area of the Appalachian mountain range south of New York. Tour members will also explore beautiful Austin Glen, take in the spectacular views of the mid-Hudson Valley, and watch the Kaaterskill River flow over Haines Falls.



Black Rock Forest



## First Annual Young Naturalist Awards Announced

On May 14, the Museum announced the twelve winners of its first annual Young Naturalist Awards, a nationwide essay contest for students in grades seven through twelve. Administered by the Alliance for Young Artists & Writers, Inc., the program was developed by the Museum to promote active participation in the sciences and to honor excellence in biology, earth science, and astronomy.

The subject of this year's contest was biodiversity. Students who entered the competition were asked to select a biodiversity project, conduct observations and research, and then submit an entry that included both writing and some form of illustration: drawings, photographs, or graphic displays. A total of 2,000 entries were received and judged by a panel of distinguished scientists, science writers, and educators.

In a special ceremony for the winners, Ellen V. Futter, president of the Museum, offered hearty congratulations to the students. Citing the extraordinary talent and imagination that went into the submissions, Futter commented that "the work of these students...serves as a testimony to the level of commitment that young people today have to the environment and to conserving habitats and species. The creative energy and scientific understanding evident in these essays provide powerful messages of optimism for the future of our planet; in many important ways, we look to this generation to lead us all."

The twelve winners are Andrea Braubius, grade 9; Sarah E. Drummond, grade 11; Christopher Hanson, grade 9; G. Paul Johnson, grade 12; Emily LaMond, grade 8; Rachel Mock, grade 7; Matthew Morell, grade 7; Susan Morris, grade 10; Shep Nickel, grade 10; Katie Prendergast, grade 8; Paige Shell-Spurling, grade 12; and Kristel Zachow, grade 11.

In addition to receiving scholarship bonds ranging from \$500 to \$2,500, the students met with Museum scientists and had a sneak preview of the Museum's new Hall of Biodiversity. Their essays are currently featured on the Museum's Web site at [www.amnh.org](http://www.amnh.org), along with their individual biographies. Selections from the winning essays were published in the July/August issue of *Natural History Magazine*.



Illustration by Sarah Drummond, age 16, 1998 award winner

### Celluloid City

In recognition of the 100th anniversary of Greater New York, the Museum will sponsor three evenings of remarkable films that depict the breadth, diversity, and sheer dynamism that characterizes this extraordinary metropolis.

#### July 9

*Broadway by Day* (1932), 9 min.  
A Twentieth Century Fox creation portraying the extravagance and frenetic energy of one of New York's most famous streets: Broadway.

*Go, Go, Go* (1962-64), 12 min.  
Experimental camera work and brisk pacing give Marie Menken's *Go, Go, Go* a sharp, edgy ambience that captures the esprit that is New York.

*Skyscraper* (1959), 20 min.  
In this work, filmmakers Shirley Clarke and Willard Van Dyke go behind the scenes to portray the construction of 666 5th Avenue, from the blueprint stage to the laying of steel girders.

*This is New York* (1962), 12 min.  
Morton Schindel's and Miroslav Sasek's delightful adaptation of the children's classic *This is New York*,

portraying a French boy's discovery of the city.

*My Own Yard to Play In* (1959), 7 min.  
Director Patricia Joffe reveals how the urban landscape can be a wonderful playground for children.

*Ruckus Manhattan* (1976), (excerpt)  
Artist Red Grooms creates a whimsical portrait of some of the more emblematic sights of New York.

#### July 16

*City of Contrasts* (1931), 28 min.  
Director Irving Bowning's campy romp through the various neighborhoods of New York City.

*The Window Cleaner* (1946), 7 min.  
A propaganda piece produced by the Office of War Information, which uses seductive imagery and jazz music to glamorize New York City's workforce.

*The Dodgers Sym-phony* (1998), 28 min.  
Filmmaker Pegi Vail takes a nostalgic look at the amateur musicians who played for the Brooklyn Dodgers and their fans at Ebbets Field.

*Can Collectors in New York* (1988), 20 min.  
Produced by DCTV Community



Daybreak Express, by D.A. Pennebaker

Workshop. *Can Collectors* examines an anti-pollution measure we now take for granted. Interviews with supermarket owners, activists, homeless people, and lawyers reflect the law's diverse impact on city dwellers.

*New York, New York* (1990), 1 min.  
A public service announcement directed by Laura Belsey, which makes ironic use of the famous song "New York, New York" to highlight the plight of a homeless community living on New York's streets.

*Sundae in New York* (1983), 4 min.  
Director Jimmy Picker's fanciful clay animation short featuring some of New York's signature personalities, including Ed Koch, Frank Sinatra, Woody Allen, and Rodney Dangerfield.

#### July 23

*Daybreak Express* (1953), 6 min.  
An early work of pioneer filmmaker D.A. Pennebaker that captures the extremes of the city by employing a variety of camera angles and lenses.

*Square Times* (1967), 7 min.  
Photographer Rudy Burckhardt, a

quintessential New York documentary filmmaker, trains his lens on the ram-functious and clamorous nature of Manhattan's most bustling district.

*Lost Book Found* (1996), 36 min.  
A gritty, gorgeous treasure hunt that is sparked by the appearance of an encyclopedic notebook about the city. Filmmaker Jen Cohen will discuss the film after the screening.

*Rat* (1997), 53 min.  
From Mark Lewis, creator of *Cane Toads*, comes another hilarious but true animal bio-pic. The two most successful mammals on earth, humans and rats, compete for the same territory: New York City.

*Roaches Lullaby* (1973), 5 min.  
All New Yorkers have complicated relationships, even with the cockroaches that nest in their cabinets. Directed by Eli Noyes and Claudia Weill.

All film screenings are from 7:30-9:30 p.m. The fee for each evening is \$8; \$7 members. The fee for the entire series is \$20; \$18 members. Program code: E10982201. For further information, call (212) 769-5200.



Rat, by Mark Lewis



## Program Listings

### Imax® Theater Screenings

#### Cosmic Voyage

Experience the wonders of the universe, from the tiniest building blocks of matter to superclusters of galaxies in outer space. Using 3-D computer-graphic images and live-action footage, *Cosmic Voyage* allows viewers to witness phenomenal events, such as the Big Bang, the collision of galaxies, and the formation of the solar system.

#### Amazon

*Amazon* is a beautifully crafted docudrama about a region that has been the obsession of explorers, scientists, and anthropologists for decades. Shot in and around the Amazon basin, *Amazon* takes audiences on an extraordinary journey of discovery among the remarkable people, plant life, and animals that live along the world's greatest river.



A scene from Amazon



#### For Junior Members: A Quick Trip to Central Africa

Wednesday, August 19, 10:30 a.m.–12:00 p.m. & 1:30–3:00 p.m.  
Join naturalist June Myles on a quick "safari" through the Museum's new Hall of Biodiversity. Children will explore the amazing re-creation of the Dzanga-Sangha Rainforest of the Central African Republic and learn about its diverse plant and wildlife. Afterwards, children will create masks of the different animals that live in the rainforest. Ages 6-10. Location: Edith C. Blum Lecture Room. Program code: MM2-8. Fee: \$20 (open to children of Members only).



#### Spiders of the Great Swamp

Thursday, September 17, 8:30 a.m.–5:00 p.m.  
Kefyn Catley, a research arachnologist in the Museum's Department of Entomology, will lead a fascinating expedition through the Great Swamp of Morris County, New Jersey, in search of the predatory arthropods we commonly know as spiders. Created approximately 15,000 years ago when the glaciers receded, the Great Swamp consists of several different habitats: marshes, meadows, dry woods, and brush-covered swamps. The trip begins with a slide-illustrated lecture on the biology and folklore of spiders. Afterwards, participants will explore the enormous diversity of spiders that inhabit the Great Swamp, including crab, fishing, wolf, jumping, and orb weaver spiders. During the day's hike, Catley will explain the role of spiders in structuring insect communities in the Great Swamp. Participants are encouraged to bring a magnifying glass. Program code: MM3-9. Fee: \$65; \$55 members.

#### Children's Workshop: Life On the Edge

Tuesday, August 18, 10:30 a.m.–12:00 p.m. & 1:30–3:30 p.m.  
Few works of nature can match the beauty of shells. Explore the marvelous sea creatures that produce the seashells we hunt for in summer during a tour of the Museum's halls, and learn about their different sizes, shapes, and colors. Participants will make casts of shells to take home. The workshop will be conducted by naturalist June Myles. Ages 6-10. Location: Edith C. Blum Lecture Room. Program code: MM1-8. Fee: \$20 (open to children of Members only).

### The Center for Biodiversity and Conservation: Seeking Solutions to Biodiversity Loss

Biological diversity is the key to the preservation of life on earth. It encompasses the immense range and variety of life forms—the differences within and between gene pools, species, populations, and entire ecosystems. It sustains and supports all living things, from microbes to humans. Without this diversity, life itself would become extinct.

As the millennium approaches, the Museum has taken up the challenge to address threats to the earth's biodiversity by establishing a Center for Biodiversity and Conservation (CBC). The CBC is dedicated to the study and conservation of biological diversity—species, ecosystems, and genetic diversity. Drawing on the combined strengths of the Museum's scientific, education, and exhibition departments, as well as its extensive collections and library, the CBC strives to disseminate scientific information to a wide audience and to develop viable, science-based solutions to biodiversity conservation problems. The CBC sponsors programs in research, training, and outreach for scientists, students, policymakers, resource managers, and organizations worldwide to ensure that current and subsequent generations of scientists will be equipped to apply their expertise to biodiversity issues.

Endeavoring to build global collaborations that integrate the Museum's resources with the diverse strengths of sister institutions, conservation organizations, environmental nongovernmental organizations, and educators, the CBC has developed field-based projects to survey species distribution in regions of the world with high concentrations of biological diversity. International projects are currently underway in Vietnam, Madagascar, and Bolivia.

This spring, the CBC launched a three-year biodiversity conservation project in Vietnam involving zoological and anthropological research, training in systematics and biodiversity conservation, and development of educational tools.

Ranked as the sixteenth most biologically diverse country in the world, Vietnam is at a critical juncture in efforts to study and conserve its rich diversity of flora and fauna. Many of the rare and endemic species found in the country are threatened or endangered as a result of one of the world's fastest rates of deforestation. It is estimated that 28 percent of the mammals and 21 percent of the reptiles and amphibians face extinction. Moreover, pressure from high rates of resource extraction is likely to increase as Vietnam continues to expand its role in the market economy.

Seeking to strengthen its long-standing commitment to protect its natural heritage, the Vietnamese government is attempting to expand the country's protected regions. Unfortunately, the few remaining undeveloped areas tend to be small and isolated, and are often the subject of conflicting priorities for their use. In collaboration with the Missouri Botanical Garden, the Institute for Ecology and Biological Resources in Hanoi, and the Vietnam National University, the CBC is conducting scientific investigations to assist the Vietnamese government in making difficult management decisions.

During this first year of the project, a zoological team has been working in the Truong Son Range (formerly the Annamite Mountains) in the western part of the country. The range forms an important barrier between the moist uplands of Vietnam and the drier forests of Laos. Moreover, it traverses the zone between the subtropical north and the tropical Indo-Malayan south. In the last five years, several mammal and fish species, and one tortoise species—previously unknown to scientists—have been documented in one area of Truong Son. Preliminary results from the expedition will be distributed to conservation managers in Vietnam in the near future.

A unique aspect of the Vietnam project is its interdisciplinary approach. Scientists from seven of the Museum's nine scientific departments, as well as its education and exhibition specialists, are involved with the project. The next phase of the program will include continued scientific research and an exploration of social and cultural issues in resource management.

In addition to its work in Vietnam, the CBC has many ongoing interdisciplinary programs aimed at generating and disseminating information about the importance of biodiversity and conservation. From international expeditions to research grants and fellowships, from symposiums to college courses, the CBC is working hard at engaging the community to seek solutions to biodiversity loss.

For more information about current CBC projects, click on "Biodiversity" at the Museum's web site: [www.amnh.org](http://www.amnh.org)



A view from the Truong Son Range





# Animal Times



## THE WORLD OF TYRANNOSAURUS REX

Many plants and animals shared the Earth with Tyrannosaurus rex. Using the word list, can you find all 23 words connected to the Age of Dinosaurs? Look up, down, across, backwards, and diagonally.

S P O T A R E C I R T S A  
A A M A G N O L I A Y E B  
N L B E E T L E S S R D A  
A M B E D S C G P A A E N  
T S D F O R R S G O N P K  
O M N O G E A P Q R N I Y  
T R A C K W A Y L M O T L  
I B E C N O M A N T S N O  
T A T I I L P Q F C A E S  
A B I M G F U V W I U C A  
N E L E R U A L W X R T U  
K E O X D I N O S A U R R  
R C R E T A C E O U S X U  
A B P Q R S T U F E R N S  
H F O S S I L X P T E Z A  
S O C S D R A Z I L X M N

### WORD LIST

ANATOTITAN  
ANKYLOSARUS  
ANTS  
BEE  
BEETLES  
CENTIPEDES  
COPROLITE  
CRETACEOUS  
DINOSAUR  
FERNS  
FIR  
FLOWERS  
FOSSIL  
GINKGO  
LAUREL  
LIZARDS  
MAGNOLIA  
PALMS  
SHARK  
TRACKWAY  
TRICERATOPS  
TYRANNOSAURUS REX  
WASPS

## I'm Going to Ask a Stegosaur to Dinner

I'm going to ask a stegosaur to dinner  
Although her manners aren't too polite,  
Although I know she'll slobber on her  
napkin  
And crush the chair she sits on every night.  
Although she won't make clever  
conversation,  
Although she'll drop a glass or break a plate,  
The reason for my eager invitation  
Is she happens to love something  
that I hate.  
It isn't that she loves Ms. Orloff's  
math class,  
And same as me, she doesn't like to dance.  
But here's where stegosaur  
and I are different:  
She loves to eat green vegetables  
and plants.  
I know she'll hate the burgers Mom is  
cooking.  
She'll never eat Dad's gooey toasted cheese,  
But each night when my parents  
aren't looking...  
She'll scarf up all my broccoli and peas.

From BONE POEMS  
By Jeff Moss  
Illustration by Tom Laugh



## ANIMAL CROSSWORD

Read the clues. Choose the correct word from the list. Write it in the crossword puzzle.

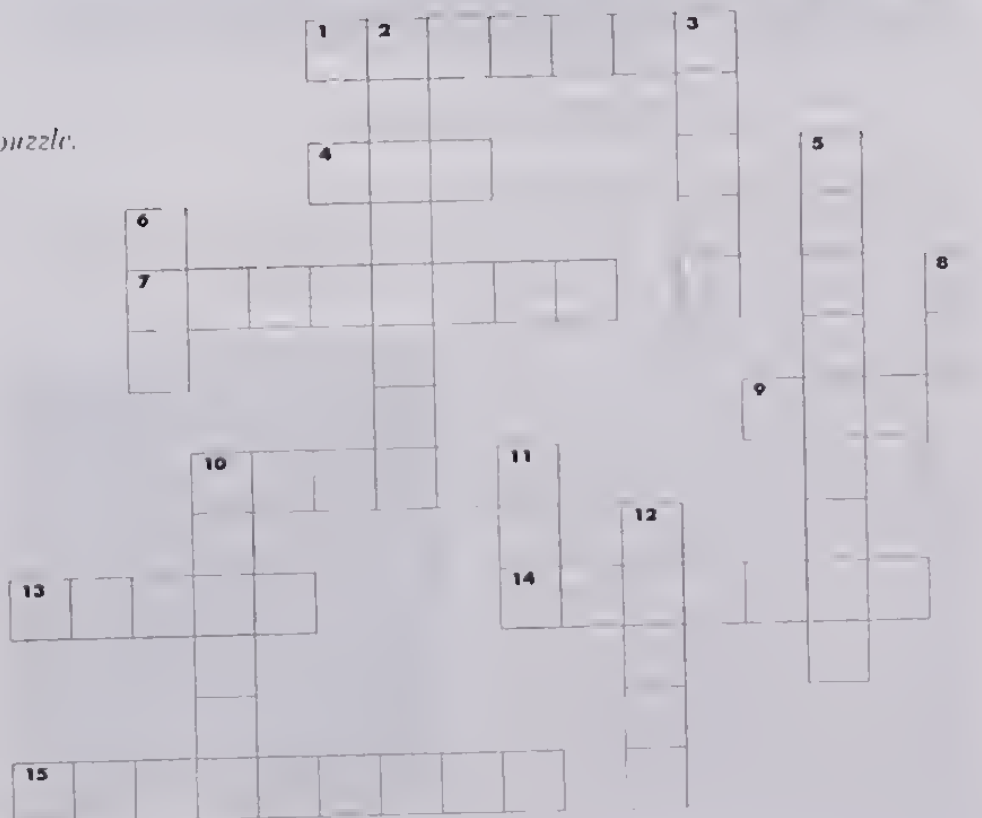
AFRICA  
ARCTIC  
BLUBBER  
CUB  
DEN  
DENTICLES  
DUNG  
ELEPHANT  
GNU  
LION  
NARWHALS  
POLARBEAR  
REMORAS  
SHARK  
SNOOT  
TUSKS

### ACROSS

1. Fish that feed on parasites living on the shark's skin.
4. A winter home built by a female polar bear.
7. Small whales that have a spiral tusk growing through their upper lip.
9. A member of the cat family, this African meat-eater lives in a family group called a pride.
10. A region at the top of the world that includes the North Pole.
13. A kind of fish with powerful jaws and sharp teeth.
14. Another name for the layer of fat found in most mammals.
15. A large meat-eating mammal that spends time both on land and in the water.

### DOWN

2. The largest animal found on land.
3. The part of the shark where the ampullae of Lorenzini are located.
5. The small razor-sharp teeth that cover a shark's skin.
6. Another name for walrus.
8. What a scavenger collects.
10. The continent where elephants, lions, and giraffes live.
11. The name given to a baby lion or polar bear cub.
12. The large teeth of an elephant that grow out from the upper lip.









# VISIT THE OCEAN LIFE CAFE

Lunch • Snacks • Desserts

Open: Monday - Thursday, 11:30 - 3:30

Friday - Saturday, 11 - 7:30 pm

Sunday, 11 - 4 pm

Located in the Hall of Ocean Life

(212) 769-5865

## 1998 New York Coastal Cleanup

Volunteers are needed throughout New York State for the 1998 New York Coastal Cleanup, one of the country's largest volunteer efforts to clear debris and trash from state beaches, canals, and lakes. The event will take place on September 19.



For further information about how you can participate, contact the northeast chapter of the American Littoral Society at (718) 634-6467, or e-mail the society at [www.alsnyc.org](http://www.alsnyc.org)

## SET ASIDE A NEST EGG FOR YOUR RETIREMENT NOW...



Artist's re-creation of an oviraptor protecting its nest, based on fossils discovered by AMNH scientists in the Gobi Desert in 1993. (Illustration by Mick Ellison for the AMNH)

AND PROVIDE FOR THE AMERICAN MUSEUM OF NATURAL HISTORY'S FUTURE



With a gift to the Museum that provides lifetime income, you can:

- receive income for life, for yourself and/or a loved one;
- enjoy an immediate income tax deduction;
- minimize or eliminate capital gains tax when appreciated stocks are sold to re-invest.

For more information, please call (800) 453-5734 or return this confidential reply form to the Office of Planned Giving, American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192.

- ☐ Please send me information on gifts that provide lifetime income.  
☐ Please send me information on including a bequest to the Museum in my will.  
☐ I have already included a provision for the Museum in my estate plans.

Name

Address

Phone: Home  Office:

Your reply is confidential and implies no obligation.

## Changes in Museum Membership Dues and Structure

As of July 1, 1998, Museum membership dues will increase for the first time since 1991. We believe, however, that you will continue to find that your AMNH membership offers great value and an incredible array of benefits throughout the year. The revised dues amounts will be as follows:

**Family \$75; Contributor \$125; Supporter \$300; and Sponsor \$600**

Family and higher-level members will receive two additional special benefits: imaginatively designed Junior Member cards for children (available upon request) and an invitation to our newly instituted annual Family Holiday Party.

Two new categories of Museum membership will also be available:  
**Individual and Dual**

For an Individual membership of \$45, members will receive unlimited complimentary admission to the Museum for one; unlimited discounts at the IMAX® theater for one; ten issues of *Natural History Magazine*, a one-year subscription to *Rotunda*; discounts on Museum shop and restaurant purchases; opportunities to participate in special programs, lectures, field trips, workshops, and members-only behind-the-scenes tours; and invitations to preview exhibitions for members and one guest.

A Dual membership of \$60 includes all of the Individual membership benefits plus unlimited complimentary admission to the Museum and discounts at the IMAX® theater for two adults.

The Associate Program will continue to be administered by *Natural History Magazine*. Subscribers to this program will receive ten issues of *Natural History*, one complimentary pass for both Museum admission and the IMAX® theater, discounts on Museum shop purchases, and special magazine offers.



## Members' Birthday Parties at the Museum

Not sure what to do this year for your child's birthday? Why not celebrate his or her special day at the Museum? A Museum birthday party is an unforgettable event, with just the right combination of fun, excitement, and learning. All you need to do is choose one of our party themes—and bring the cake. We'll take care of the rest.

You might choose our most popular theme, the Dinosaur Party, and explore our famous fourth-floor dinosaur halls with a birthday party coordinator. Afterwards, the group heads to the party room, where they learn how fossils are formed, handle casts of fossils, and make their own fossil casts to take home.

Perhaps you might opt for the Safari Party. Children go on guided hall tours and learn about African natural history and cultures, then get some hands-on experience with several African objects from the Museum's collections, play safari party games, and make their own African masks.

Or, you may choose our newest theme, a Rainforest Party, which will give your group a chance to venture into a phenomenal reconstruction of part of the Dja-Sangha Rainforest of the Central African Republic.

Parties are held on Fridays, Saturdays, and Sundays, and last for two hours. Each party includes a hall tour led by your birthday party coordinator, an introduction to artifacts relevant to the tour, arts and crafts projects, games, storytelling, refreshments, and a favor bag. Museum birthday parties are limited to members at the Supporter (\$300) level and above. The party fee covers all materials and the services of Museum staff, who customize each party to make it a truly special event for your child's birthday.

For more information, please call (212) 769-5154.



Sun Mon Tues Wed Thur Fri

July 1998

*Spirits in Steel: The Art of the  
Kalabari Masquerade*  
Gallery 77 through  
October 12.  
*Africa: Explorations and  
Expeditions*  
Library Gallery through  
July 25.

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New York  
Mineralogical Club  
Edith C. Blum  
Classroom; 5:30 p.m.

9

New York Film Series  
See page 3 for details.

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12

**The Earth as a Peppercorn**  
Tour the solar system  
with Robert Campanile;  
1:00 p.m. Program code:  
MM1-7

13

14

15

*Rare Beauty: America's  
Endangered Plants*  
exhibition opens in  
the second floor Akeley  
Gallery.

16

**Black Rock Forest**  
Hudson Highlands hike;  
8:30 a.m.-5:30 p.m.  
Program code: MM3-7

17

18

New York Film Series  
See page 3 for details.

19

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21

Linnaean Society  
of New York  
Leonhardt People  
Center; 7:30 p.m.

22

23

New York Film Series  
See page 3 for details.

24

25

**Manhattan Map  
Casting Workshop**  
Mapmaking workshop  
with Pamela Popeson;  
1:00-4:00 p.m.  
Program code: MM5-7

26



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28

**Geology & Fossils in  
Catskill, N.Y.**  
Sidney Horenstein leads a  
tour in the mid-Hudson  
Valley; 8:00 a.m.-5:30 p.m.  
Program code: MM4-7

29

**Book Signing**  
Stephen C. Hofer will sign  
copies of *Collecting and  
Classifying Coloured Di-  
monds*; 1:00-4:00 p.m.,  
Diamond Shop, 3rd Floor.

30

31

**BiodiVERSEity**  
Hall tour with Robert  
Campanile; 6:30 p.m.  
Program code: MM2-7

*Cave of the Warriors* exhibition  
opens in the Library Gallery.

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August 1998

American Museum of Natural History

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New York  
Mineralogical Club  
Edith C. Blum  
Classroom; 5:30 p.m.

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18

**Life on the Edge**  
Explore the Museum's sea  
creatures with June Myles;  
10:30 a.m.-12:00 p.m.  
& 1:30-3:30 p.m.  
Program code MM1-8

19

**A Quick Trip to  
Central Africa**  
June Myles leads a tour  
through the Hall of Biodiver-  
sity; 10:30 a.m.-12:00 p.m.  
& 1:30-3:00 p.m.  
Program code: MM2-8

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22

**Birding in Jamaica Bay**  
Bird watching with Steve  
Quinn at the Jamaica Bay  
Wildlife Sanctuary;  
9:00 a.m.-4:00 p.m.  
Program code: MM3-8

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**Exploring the Connecticut  
Countryside**  
Trek led by June Myles;  
8:00 a.m.-5:00 p.m.  
Program code: MM4-8

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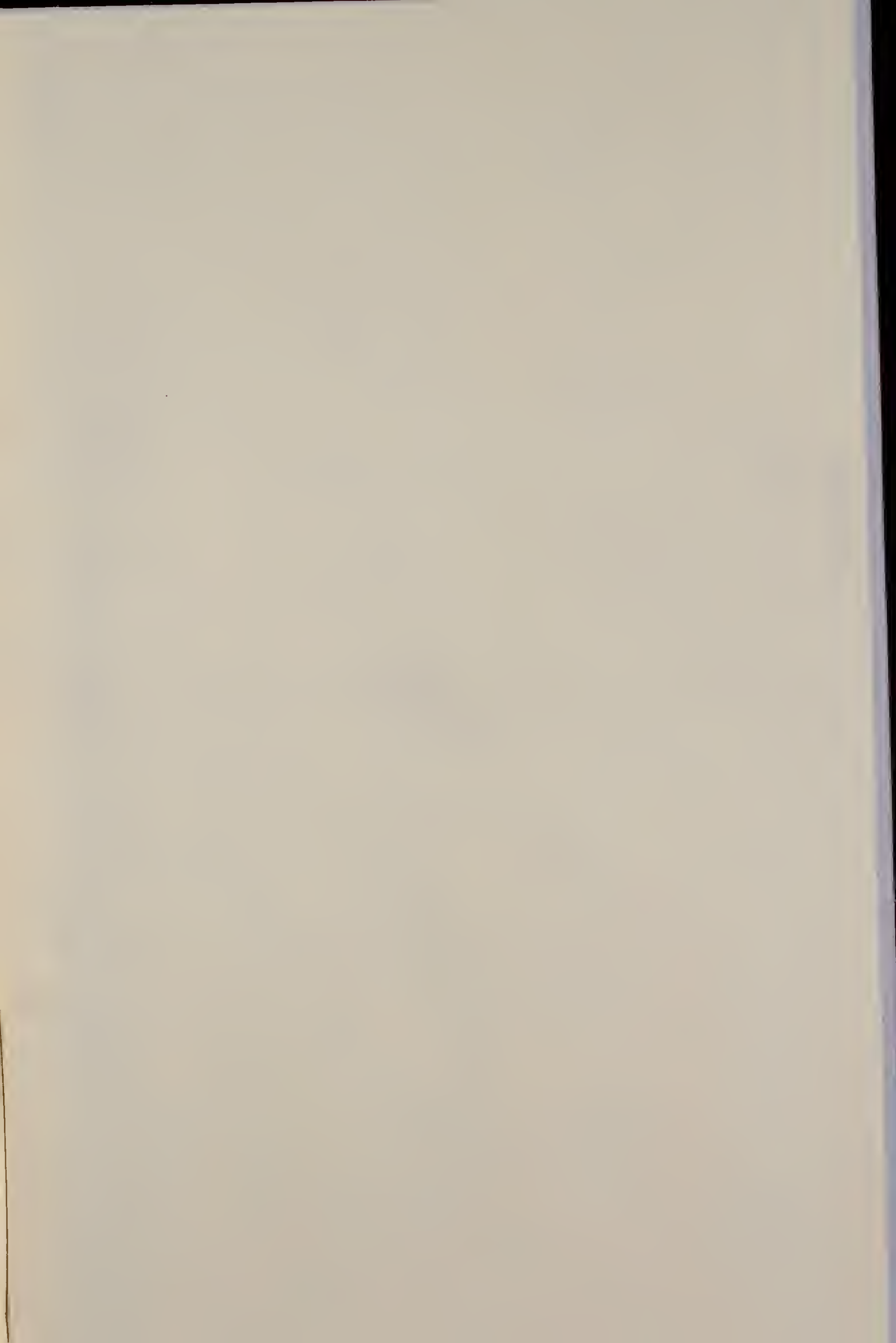














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