LIBRARY OF THE
AMERICAN MVSEVM OF NATVRAL HISTORY
FOR THE
PEOPLE
FOR
EDVCATION
FOR
SCIENCE

QH70.U52
5
. 3
o. 8
eptember
998

rotunda

23

Vol. 24, No. 8 September 1998

the sacred arts of haitian vodou

photographs from papua new guinea

members' expeditions

inside the dzanga-sangha rainforest

American Museum of Natural History Members' Newsletter

the sacred arts of haitian vodou

The exhibition The Sacred Arts of Haitian Vodou is the first comprehensive presentation of creative art from this Afro-Caribbean religion. Featuring over 500 objects, it is the culmination of an eight-year collaboration among the African Studies Center at the University of California, Los Angeles; the Center for African American Studies; the Centre d'Art in Port-au-Prince, Haiti; and the national museums of Haiti. Scholars in history, art history, folklore, anthropology, and sociology, together with artists and Vodou practitioners, have contributed their expertise and talents to the project, which challenges popular misconceptions of Vodou religious practices.

Haiti occupies the western third of the Caribbean island Hispaniola (Little Spain), so named by Christopher Columbus. In 1697, the French acquired Haiti, and for the next century African slave labor made it the most prosperous colony in the world. Its wealth was achieved, however, at the cost of hundreds of thousands of lives. By 1791, sporadic acts of rebellion gave way to a full-scale revolution. After thirteen years of fighting, the slaves finally drove out the French.

Denis Nervig

"Bottle for Bosou Twakon"; UCLA Fowler Museum of Cultural History

In 1804, Haiti became the first nation after the United States to gain independence in the Americas; it was the only slave revolt in the world ever to create a nation. The newly free citizens renamed the country Hayti— an expression of the island's indigenous people, the Taino, meaning "land of the mountains."

Gary Garnick

"Rada Altar"; UCLA Fowler Museum of Cultural History

The complex and diverse nature of Haitian Vodou and its sacred art is rooted in the country's tumultuous cultural and political history. Vodou reflects the conflation of several religious traditions: the beliefs and rituals that enslaved Africans brought with them to the Americas from West and Central Africa; Taino customs; the art, ritual, and myth of Catholicism; and assorted hermetic and spiritist practices, such as Freemasonry. Out of this fusion of African, European, and indigenous cultures, the unique and still evolving religion of Vodou emerged. The word *Vodou*, meaning "sacred," is itself inherited from the Fon language of West Africa, where sacred energies are called vodun.

The spiritual recombination that shaped Vodou also helped African people survive the terrible ordeal of slavery. Forced into conversion, Africans found many correspondences between their ancestral religions and the rites and images of Catholicism. Catholic symbols, especially of the saints, were freely appropriated to honor African deities, and the influence of Catholic art and ritual remains dramatically visible today. Both religions share the same ritual calendar, and the Iwa (divinities) are known as often by the names of Catholic saints as they are by their African names. Much of the vocabulary of Vodou is borrowed from Fon, including the words for temple (*ounfo*), priest (*ougan*), priestess (*manbo*), and servitor (*ounsi*). And many Vodou objects are informed by multiple African sources—Fon, Kongo, and others.

Sacred Arts will introduce visitors to an extraordinary array of artifacts, including bottles, pots, painted calabashes, beaded rattles, bound medicine packets, dolls, musical instruments, and multimedia assem-

ages. Much of this art was collected
ıring various campaigns waged
gainst the religion from the 1940's to
ıe 1980's and has never before been
hibited. These materials, as well as
usic, slide illustrations, video clips,
ıd large-format photographs, provide
contextual framework for Vodou's
tricate history and development.

mong the highlights of the show are a
lection of works by several impor-
ınt Haitian artists: painter Hector
yppolite (1894–1948); metal sculptor
eorges Liautaud (1899–1991);
quined flag-maker Antoine Oleyant
955–1992); and Pierrot Barra
.1942), who creates surreal represen-
tions of Vodou spirits out of the de-
itus of the Port-au-Prince Market.
here is also a dramatic collection of
proximately seventy ritual flags
rapo), made of satin, velvet, or rayon
ıd adorned with sequins, beads, or
plique. *Drapo* are paraded around
ıe temple at the beginning of a Vodou
remony to salute the Iwa, and each
typically dedicated to a single Iwa
ıd incorporates its sacred colors and
mbols.

he heart of the exhibition is a replica
a Vodou temple. Based on an exist-
g temple in Haiti, the replica consists

Denis Nervig

"Conversion of the Indians" by Moleon Blaise; UCLA Fowler Museum of Cultural History

of a dancing area and adjoining altar rooms. Crossing the temple's threshold, visitors enter the dancing area dominated by a central pillar around which worshippers dance and the deities descend. Videos of actual Vodou ceremonies will be projected on monitors. The temple will be decorated with murals painted by a local Haitian artist and will also display chromolithographs and several sacred objects, including a giant *asato* drum. Adjacent to the re-created temple will be three altars set up by the Museum with the advice of Haitian priests, who participated in the installation of the exhibition. Each altar is based on a Haitian prototype and honors one of the three major sets of Vodou deities.

For most Americans, the term "voodoo" conjures up images of witchcraft, magic spells, and bizarre rituals. So prevalent are these pejorative, Hollywood-inspired clichés that relatively few people actually understand the real meaning of Vodou, or realize that it is the predominant religion of the Haitian people. *The Sacred Arts of Haitian Vodou* illuminates the historical significance, as well as the vibrancy and beauty, of this Afro-Caribbean religion, while working toward dispelling some of the egregious stereotypes and misunderstandings that surround it.

The exhibition was organized by the UCLA Fowler Museum of Cultural History, with support from the National Endowment for the Humanities and the Rockefeller Foundation. The presentation of *Sacred Arts* at the Museum is made possible through the support of the Lila Wallace-Reader's Digest Endowment Fund.

The Sacred Arts of Haitian Vodou will open on October 10 and run through January 3, 1999, in Gallery 3.

Cover Photo: Flag for Ezili Freda
Photo by Susan Einstein;
UCLA Fowler Museum of Cultural History

rotunda
ISSN 0194-6110
Vol. 24, No. 8, September 1998
Cleo Cacoulidis, Editor
Michel DeMatteis, Copy Editor
Peggy Conversano, Designer
Rosemary Caulk, Director of Membership
We hope that members will enjoy the revitalized format of Rotunda. This new layout was designed by Fred J. DeVito, Inc.
Rotunda is published monthly, except for a combined issue in July/August, by the Membership Office of the American Museum of Natural History, Central Park West @ 79th Street, New York, N.Y. 10024-5192. Telephone: (212) 769-5606. Museum membership of $45 per year and up includes a subscription to *Rotunda*. © 1998 American Museum of Natural History. Periodical postage paid at New York, N.Y., and at additional mailing offices. Postmaster: Please send address changes to *Rotunda*, Membership Office, AMNH, at the above address. Printed in the USA.

events & exhibitions

Photographs from the Middle Sepik River, Papua New Guinea

The exhibition *Photographs from the Middle Sepik River, Papua New Guinea* offers a rare glimpse into the world of the Iatmul- and Sawos-speaking peoples of the middle Sepik River shortly after World War II. Valuable and aesthetically compelling historical records, the images document the artistic and cultural traditions of these two tribal groups before Western technology and institutions brought about dramatic changes in their customs.

In December 1953, E. Thomas Gilliard (1912–1965), a curator in the Museum's Department of Ornithology, and his wife, Margaret, traveled to Papua New Guinea with the intention of entering the Telefomin area of the upper Sepik River. The purpose of the trip was to collect and study birds found in the Telefomin region. However, shortly after the couple arrived, local events caused them to interrupt their journey and settle for three months in the village of Kanganaman. While there, Gilliard became interested in the life of the Iatmul. He began photographing the decorated architecture of the village, traditional celebrations, woodcarvings such as masks, flutes, slit-gongs, and vessels, and the intricate costumes and body decorations of the people. During his three-month stay in Kanganaman, Gilliard took over 1,500 photographs and slides.

Photographs from the Middle Sepik River will present thirty-six of Gilliard's extraordinary ethnographic images, which vividly illustrate the richness of the artistic and cultural achievements of the people of the middle Sepik River. The exhibition opens October 23 and runs through March 28, 1999, in the Akeley Gallery.

E. Thomas Gilliard

Iatmul man and child, middle Sepik River, Papua New Guinea

Silent Thunder: In the Presence of Elephants

Katy Boynton Payne, biologist, conservationist, and author, will present a slide-illustrated lecture on her work with African elephants. Her latest book, *Silent Thunder: In the Presence of Elephants*, documents her studies on elephant communication, as well as her efforts to end the practice of government-sanctioned elephant killings.

Renowned for her extensive research in Patagonia on humpback whales, Payne began her study of elephants in a rather unusual manner: by associating the "throb and flutter" she sensed while standing next to an elephant enclosure at a zoo with the low notes of a church pipe organ. Intrigued, Payne returned with a tape player, recorded the "vibration," and then played it back at fast speed. What she discovered was infrasonic communication

among elephants that fell far below the minimum range of human hearing. This discovery led Payne to Africa—Kenya, Zimbabwe, and Namibia—where she conducted research on the ways in which elephants communicate with one another.

Payne's work with elephants has attracted international attention, and her articles on this and other topics have appeared in several publications, including *National Geographic*, *Natural History*, *American Scientist*, and *The Los Angeles Times*. Her children's book, *Elephant's Calling*, was selected by the National Science Teachers Association and the John Burroughs Children's Book Council as an outstanding book for 1992. Payne was awarded a Guggenheim Fellowship in 1990 and an Albert Schweitzer Award in 1981. She is currently a Visiting Fellow in the Bioacoustic Research Program at Cornell University.

The lecture will take place on October 8 at 7:00 p.m. in the Kaufmann Theater. Program code: ED98224L. Fee: $12.

AMNH

Spirit and Ritual: Celebrating Nigerian Art and Masquerade

In conjunction with the exhibition *Spirits in Steel: The Art of the Kalabari Masquerade*, the Museum will present a weekend of lectures, performances, music, and film, focusing on the traditions of Nigerian art and masquerade.

September 11

Openly Loved, Secretly Feared: Images of Women in an African Society

7:00 – 8:30 p.m., Kaufmann Theater

Many of the oral and visual art traditions of the Yoruba of West Africa reveal much about the roles women have played in that society. In a slide-illustrated presentation, Rowland Abiodun will explore images of Yoruba women over the centuries and examine how they have changed, particularly under colonialism. A renowned scholar on Yoruba culture and art, Abiodun is a professor of fine arts and black studies at Amherst College.

September 12

Masquerade Performances from Africa, Bahia-Brazil, and Brooklyn, New York

3:00 – 5:00 p.m., Kaufmann Theater

Masquerade is a principal form of artistic expression in Africa and the Americas. Using slides and video clips, Henry John Drewal will explore the masquerade traditions of the Yoruba of West Africa, their spiritual descendants in Brazil, and African Americans participating in the West Indian Day Parade in Brooklyn, New York. The program will be followed up with videos of masquerades in Nigeria, including one entitled *Yoruba Performance*. A prolific author of books on Africa and the Americas, Drewal is the Evjue-Bascom Professor in the Department of Art History at the University of Wisconsin-Madison.

September 13

Theater of Masks and Magic

10:30 a.m. – 12: 30 p.m., Edith Blum Classroom

Nigerian scholar Esiaba Irobi will conduct a workshop examining the breadth of African masquerades, from the satirical to the sacred. Emphasis will be placed on the distinctions between masks displayed in museums and those used in African ceremonies. Participants will create their own masks and then take part in a masquerade. Irobi is currently a visiting professor at New York University's Tisch School of the Arts. He is also a practitioner of African festival ritual theater. The workshop is for ages 7 and above. Participants should bring materials with which to decorate a mask, such as ribbons, shells, strips of cloth, etc. Space is limited. For free tickets to the workshop, call (212) 769-5200.

Spirits of the Delta

3:00 – 4:00 p.m., Kaufmann Theater

The Republic of Biafra Theater Company and Nigerian scholar Esiaba Irobi will bring to life the beauty of the indigenous masquerade traditions of the Niger Delta in a dramatic re-creation of a masquerade performance.

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. *Spirits in Steel* is made possible through the support of the Lila Wallace-Reader's Digest Endowment Fund.

ressing ceremony in preparation for the Alagba masquerade

members' programs

Expeditions

All expeditions, unless otherwise noted, include round-trip transportation (via charter bus from the Museum) and lectures. Pack a picnic lunch and wear appropriate clothing. A detailed itinerary, along with specific instructions, will be sent to all registered participants two weeks prior to the program date.

Kefyn M. Catley

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-weaving 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.

Ethnobotany at the Institute for American Indian Studies

Saturday, October 3, 8:30 a.m.–6:00 p.m.

Enjoy a two-hour drive through the Northwest Hills to Washington, Connecticut, during autumn, when the foliage is ablaze in hues of orange, red, and gold. The destination is the Institute for American Indian Studies. While there, you will visit the institute's museum, ethnobotanical trails, medicine-wheel garden, healing-plants walk, and an adjacent 2,000-acre nature preserve.

During the morning, participants will form small biodiversity study groups and take part in several programs. After being treated to an herbal lunch and a talk by the institute's director, tour members will hike through sassafras, witch hazel, sweet fern, and wintergreen eco-niches with ethnobotanist E. Barrie Kavasch, author and botanical illustrator of numerous books in the field of Native American healing. Later in the afternoon, there will be a discussion in the medicine-wheel garden about the many pathways to healing. Come and join this unique tour and learn about the area's 12,000-year-old history. Program code: MM1-10. Fee: $70; members only. (lunch included)

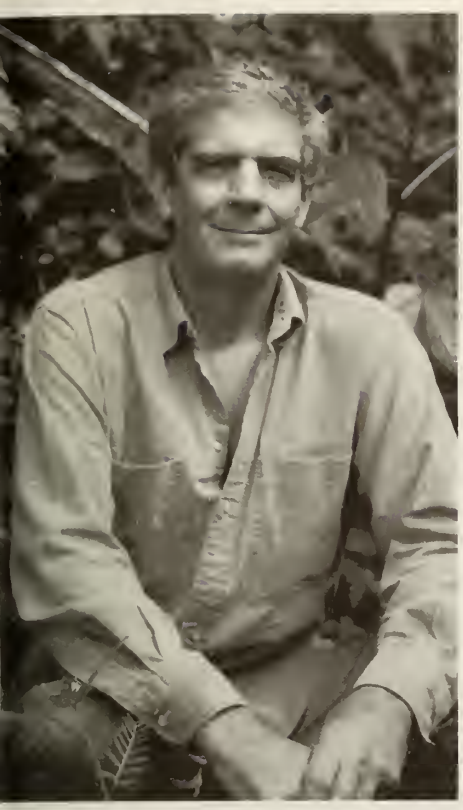
"Birding" at Brigantine Wildlife Refuge

Saturday, October 17, 8:00 a.m.–6:00 p.m.

Join Museum naturalist Stephen C. Quinn for a day of bird watching, or "birding," at the Brigantine National Wildlife Refuge in southern New Jersey. During the fall season, large numbers of waterfowl and shorebirds, including thousands of snow geese, brant, and ducks, gather at this coastal sanctuary as they migrate south for the winter. Given the diversity of habitats at Brigantine, participants will also be able to sight several other species, including birds of prey and songbirds. Program code: MM4-10. Fee: $70; members only.

H.K. Barnett

Bark-covered wigwam in reconstructed Algonkian Village, circa 1600



Alfonso Silva Lee

Lectures

The Natural History of Puerto Rico

Sunday, October 4, 2:00 p.m.

Renowned Cuban biologist and photographer Alfonso Silva Lee will present a slide-illustrated lecture on his latest book, *Natural Puerto Rico.*

Puerto Rico is home to over a dozen species of tiny, beautiful frogs, as well as hundreds of species of insects, snails, lizards, and birds—more than 5,000—many of which live nowhere else in the world. Silva Lee will discuss the importance of these creatures and how they are beneficial to Puerto Rico's forests.

During the past twenty-five years, Silva Lee has served as a biologist with a number of Cuban institutions, including the National Museum of Natural History, the Academy of Sciences, and the Institute of Oceanology. The author of nine books and over fifty scientific articles, he received Cuba's National Award for Culture in 1996. The lecture will take place in the Kaufmann Theater. Program code: MM2-10. Fee: $8 members; $10 non-members.

Imagining Atlantis

Tuesday, October 6, 7:00 p.m.

In a slide-illustrated lecture, noted author and artist Richard Ellis will discuss his latest book, *Imagining Atlantis.*

Ellis spent several years researching the legend, concluding that there was no evidence, geographical or historical, to prove Atlantis ever existed other than in people's imaginations. Ellis points out that the myth, despite all proof to the contrary, still endures as a powerful story and metaphor. "The story of Atlantis has passed through time as bright and new...as it was when Plato wrote it."

Ellis is a celebrated marine painter, as well as the author of a number of books. The lecture will be held in the Kaufmann Theater. Program code: MM3-10. Fee: $8 members; $10 non-members.

Wild New York

Tuesday, October 20, 7:00 p.m.

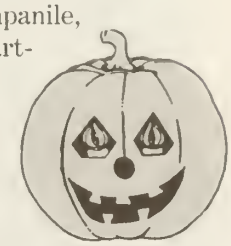
Join authors Margaret Mittelbach and Michael Crewdson for a lecture and slide show on their recent book, *Wild New York: A Guide to the Wildlife, Wild Places, and Natural Phenomena of New York City.* You'll never think of the "concrete jungle" in quite the same way again.

For five years, Mittelbach and Crewdson stalked the urban wilderness in search of the nature that lies hidden in acres of overtrampled parks. What they discovered was surprising: peregrine falcons nesting on the Brooklyn Bridge, snapping turtles in Central Park, and sharks lurking off the Coney Island shore, among other things. The lecture will be held in the Kaufmann Theater. Program code: MM5-10. Fee: $8 members; $10 non-members.

The Tell Tale Tour

Friday, October 23, 6:30 p.m.

It is the season of ghosts, lost souls, and eerie happenings. It is the season of Edgar Allen Poe. Once again, the master's stories will rise from the Museum's tombs and shadows to chill you to the bone. Join your fellow members and venture into the darkest reaches of Poe's imagination. Your host and storyteller, Robert Campanile, promises quickened heartbeats and breathless moments. Program code: MM6-10. Members only.



Halloween

Friday, October 30, 6:30 p.m.

Do you dare to celebrate the ancient holiday of Halloween at the Museum? If you do, then you are in for a treat, or perhaps a trick. The Museum's annual Halloween tour will take you through the largest haunted house in the city, closely pursued by its many spirits. You will make thirteen stops covering the history of Halloween. So bring your brave soul and wear a costume if you wish. We will provide the ghosts. Your caretaker for the evening will be "Icharob" Campanile. Program code: MM7-10. Members only.

Michael Feller

A peregrine falcon

september

Current Exhibits

Spirits in Steel: The Art of the Kalabari Masquerade
Gallery 77 through January 31, 1999.

Cave of the Warrior
Library Gallery through December 6.

Rare Beauty: America's Endangered Plants
Akeley Gallery through October 4.

Tuesday **1** *Visit the new Hall of Biodiversity*

Wednesday **2** *Don't miss the "Cave of the Warrior" exhibition*

Thursday **3**

Friday **4** *Come browse in the Museum Shops*

Saturday **5** *View a spectacular Imax® film*

Sunday **6** *Remember to purchase tickets for the Fifth Annual Family Party*

Monday **7**

Tuesday **8**
Linnaean Society of New York
Linder Theater; 7:30 p.m.

Wednesday **9**

Thursday **10** *Explore the Dinosaur Halls on the fourth floor*

Friday **11**
Images of Women in an African Society
Discussion on the visual art traditions of the Yoruba of West Africa.
Kaufmann Theater; 7:00–8:30 p.m.

Nature's Digressions
Museum hall tour with Robert Campanile.
6:30 p.m. Program code: MM1-9

Saturday **12**
Masquerade Performance from Africa, Bahia–Brazil, and Brooklyn, New York
Lecture on masquerade traditions.
Kaufmann Theater; 3:00–5:00 p.m.

Sunday **13**
Theater of Masks and Magic
African masquerade workshop.
Edith Blum Classroom
10:30 a.m.–12:30 p.m.

Spirits of the Delta
Masquerade performance with Nigerian scholar Esiaba Irobi.
Kaufmann Theater; 3:00–4:00 p.m.

Monday **14**

Tuesday **15** *Enjoy lunch at the Ocean Life Cafe*

Wednesday **16** *Sign up for a children's workshop*

Thursday **17**
Spiders of the Great Swamp
Members' expedition to the Great Swamp of Morris County, New Jersey.
8:30 a.m.–5:00 p.m.
Program code: MM3-9

Friday **18** *Register for a Hayden Planetarium course in astronomy*

Saturday **19**

Sunday **20** *Come hear a lecture on elephants and how they communicate*

Monday **21**

Tuesday **22** **Linnaean Society Of New York**
Linder Theater; 7:30 p.m.

Wednesday **23**

Thursday **24** **The Heavens on Fire: Leonid Meteors**
Lecture on the history and mythology of meteors
Kaufmann Theater; 7:30 p.m.
Program code: HP109L

Friday **25** **Sacred Places**
Museum hall tour with Robert Campanile.
6:30 p.m. Program code: MM2-9

The Imax® film Cosmic Voyage closes.

Saturday **26** **Africa's Elephant Kingdom, the Museum's latest Imax® film, Opens**

Sunday **27**

Monday **28** **Biodiversity and Your Food**
Learn how food choices affect biodiversity.
7:00–8:30 p.m.
Program code: ED9833oL

Tuesday **29**

Wednesday **30**

Upcoming Exhibits

The Sacred Arts of Haitian Vodou
Opens October 10

Photographs from the Middle Sepik River, Papua New Guinea
Opens October 23

Butterflies
Opens November 7

Margaret Mead Film Festival
From November 6 through 14

Primates: The Jean Baulu Collection of Antique Prints
Opens December 21

Phone Numbers at Your Finger Tips

Museum Information	(212) 769-5100
Membership Office	(212) 769-5606
Planetarium Information	(212) 769-5900
Member Birthday Parties	(212) 769-5154
Education Department	(212) 769-5310
Planned Giving Office	(212) 769-5119
Discovery Tours	(212) 769-5700
*toll-free outside NYState	(800) 453-5734
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
Internet	http://www.amnh.org

For program reservations, please call (212) 769-5200

Photo by Gabriella Imperatori-Penn; Photo retouching by Andrea Di Fiore

program listings

Department of Education

Special Events

In celebration of the opening of the exhibition *The Sacred Arts of Haitian Vodou*, the Museum will present the following series of lectures by Vodou scholars and practitioners. The fee for the series is $40; $36 members. Individual lectures are $12; $10 members. Program code: ED98223L

Denis J. Nervig

Painting of Bawon Samedi on a gourd by Andre Pierre; UCLA Fowler Museum of Cultural History

Imagine Heaven: The Sacred Arts of Haitian Vodou

Thursday, October 8, 7:00–8:30 p.m.

A presentation by Donald J. Cosentino, professor of African and Diaspora Literature and Folklore at UCLA and a co-curator of *The Sacred Arts of Haitian Vodou.*

Race, Memory, and Historical Consciousness in Vodou

Thursday, October 15, 7:00–8:30 p.m.

A lecture by Mama Lola, a Vodou priestess who maintains a temple in Brooklyn, New York; and Karen Brown, professor of Sociology and Anthropology of Religion at Drew University.

Negotiating Life and Death at the Vodou Crossroads

Thursday, October 22, 7:00–8:30 p.m.

A talk given by Marilyn Houlberg, professor of Art and Anthropology at the School of the Art Institute of Chicago and co-curator of *The Sacred Arts of Haitian Vodou.*

The Role of Vodou in Haitian History and Culture

Thursday, October 29, 7:00–8:30 p.m.

A presentation by Henry Frank, executive director of the Haitian Centers Council.

Haitian Ethnography, Music, and Culture

Thursday, November 5, 7:00–8:30 p.m.

An examination of Vodou culture with Aboudja (Ronald Derenoncourt), a scholar, musician, journalist, and Vodou priest.

Biodiversity

In this unique, four-part series, panelists will discuss the variety of ways in which everyday decisions affect biodiversity. The series is free and open to the public. Reservations are encouraged. For information, call (212) 769-5200. Program Code: ED98330L.

Susan Einstein

Pakets, objects used for healing, are part of a Petwo altar; UCLA Fowler Museum of Cultural History

Biodiversity and Your Food

Monday, September 28, 7:00–8:30 p.m.

Learn how food choices can both benefit and harm biodiversity. Discover options in your supermarket and opportunities for urban gardening.

Biodiversity and Your Water Supply

Monday, October 26, 7:00–8:30 p.m.

Find out about water conservation and its effects on water quality.

Biodiversity and Energy

Monday, November 16, 7:00–8:30 p.m.

Identify energy uses in your home, and learn how recycling reduces the demand for energy and natural resources.

Biodiversity and What You Buy

Monday, December 7, 7:00–8:30 p.m.

Discuss the environmental impact of product packaging and advertising.

Lectures

The Magic of Sound

Thursday, October 1, 7:00–8:30 p.m.

In this presentation by Jim Metzner, producer of the award-winning radio show Pulse of the Planet, which is sponsored by the Museum, Metzner will discuss the mystery of sound. Program code: ED98221L. Fee: $12.

Native New Yorkers

This slide-illustrated lecture series will explore the impact of 17th-century European colonization on Native American life in New York. Robert S. Grumet, ethnologist and archaeologist will present the series. The fee is $35; $31.50 members. Individual lectures are $12; $10 members. Program code: ED98222L.

Early Hunting and Gathering

Tuesday, October 6, 7:30–9:00 p.m.

A discussion about the life of Native Americans in the New York area before European colonization.

Lenape Life in the New York City Area, Circa 1600

Tuesday, October 13, 7:30–9:00 p.m.

An examination of local Native American customs prior to the arrival of Europeans, this lecture utilizes archival documents, archaeological materials, and the oral histories of Lenape elders.

AMNH

Jim Metzner on Great Gull Island

Indian People and Places in New York City

Tuesday, October 20, 7:30–9:00 p.m.

In this look at Native American life in each of the City's boroughs, participants will learn the meaning of Lenape words like Canarsie, and hear about the influence of Indian chiefs Penhawitz and Mamaroneck.

Multicultural Programs

Morocco and Egypt: Dance and Cultural Identity

The following series of lectures will explore the dance traditions of Egypt and Morocco. Carolina Varga Dinicu, researcher and performer of Middle Eastern dance, will present the programs. The fee is $35; $31.50 members. Individual lectures are $12; $10 members. Program code: ED98227L.

Community Identity in Berber Nations

Wednesday, October 14, 7:00–8:30 p.m.

A slide-illustrated discussion on various dances of the Berber people. Video clips from a 1993 Berber dance performance at Lincoln Center, in New York, will also be shown.

Native American-European Relations

Tuesday, October 27, 7:30–9:00 p.m.

An exploration of Native American-European relations, from the first contacts between the two groups to the deaths, in the early 1900's, of the last known descendants of New York's first inhabitants.

The Pattern of Evolution

Tuesday, October 13, 7:00–8:30 p.m.

Niles Eldredge, curator in the Museum's Department of Invertebrates, will present a lecture based on his new book, *The Pattern of Evolution*. Eldredge will discuss the interdependence of the earth's biological and physical systems, and the similarities in how the living and nonliving worlds function. Copies of his book will be available for purchase and signing. Program code: ED98235L. Fee: $12.

The National Folklore Troupe of Egypt

Wednesday, October 21, 7:00–8:30 p.m.

An exploration of dances from Egypt using videotapes of live performances.

Stars of Egyptian Oriental Dance

Wednesday, October 28, 7:00–8:30 p.m.

An investigation of the stylistic differences among the star performers of Egyptian oriental dance from the 1960's through the 1990's.

The Folklore of Egypt and the Sudan

Wednesday, November 4, 7:00–8:30 p.m.

A look at the differences between Turkish and Egyptian dervishes, as well as the distinctions between Nubian and Sudanese dance traditions.

program listings

Workshops

Animal Drawing

Thursday, October 1, 7:00–9:00 p.m.

Join Museum artist Stephen C. Quinn and learn to sketch subjects from the Museum's dioramas and its collection of mounted skeletons. Quinn will discuss drawing technique, animal anatomy, and the role of the artist in the Museum. The class will run for eight weeks and is limited to twenty-five people. Program code: ED98350X. Fee: $135 (materials not included).

AMNH

Children's Workshops

Beautiful Swimmers

Sunday, October 4, 10:30 a.m.–1:30 p.m.

Merryl Kafka, assistant director of education at the New York Aquarium for Wildlife Conservation, will take children on a journey through the Museum's Hall of Ocean Life. Afterwards, children will learn about sawfish, sharks, and angelfish through games, music, and film. Ages 8 & 9. Program code: ED98413C. Fee: $25.

Biodiversity Expedition

Sunday, October 4, 10:30 a.m.–1:30 p.m.

Children will travel through the Museum's halls exploring the wonders of the earth: plants, animals, and humans. Activities include hunting for treasure and making dioramas with some of the same materials used in the re-creation of the Dzanga-Sangha Rainforest in the Hall of Biodiversity. Larissa Fawkner, from the Museum's Exhibition Department, will conduct the workshop. Ages 9 & 10. Program code: ED98414C. Fee: $25.

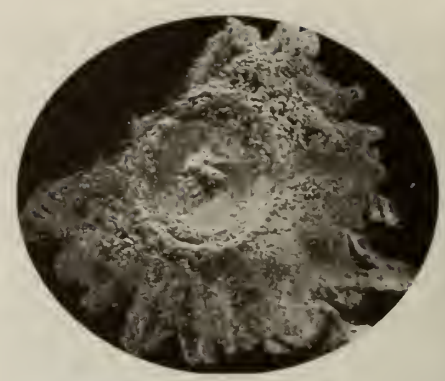
Biodiversity: Slimy, Wet, and Dry

Sunday, October 4, 10:30 a.m.–1:30 p.m.

From a lobed-fin fish that walked out of its stream to reptiles that laid eggs on land, children will examine extinct amphibians and reptiles and learn how some animals evolved before others. A visit to the Hall of Reptiles and Amphibians, in addition to live animal displays, will help children understand the threat of extinction many animals face today. Leslie Day, environmental science teacher, Elisabeth Morrow Elementary School, Englewood, New Jersey, and Bank Street College of Education, New York City, will present the program. Ages 9 & 10. Program code: ED98415C. Fee: $25.

Children should bring a bag lunch for three-hour programs.

AMNH



NASA

The planet Venus

Hayden Planetarium Lectures

The Heavens on Fire: Leonid Meteors

Thursday, September 24, 7:30 p.m.

Mark Littmann will present a talk on the great Leonid meteor storm of 1833, where observers described the sight as "the heavens on fire." He will also trace the history and mythology of meteors. Littmann is a professor of science writing at the University of Tennessee. Location: Kaufmann Theater. Program code: HP109L. Fee: $8; $7 members.

Venus Revealed

Monday, October 5, 7:30 p.m.

David Grinspoon of the University of Colorado will discuss the planet Venus and its many permutations. Location: Kaufmann Theater. Program code: HP110L. Fee: $8; $7 members.

Can the Universe Create Itself?

Monday, October 19, 7:30 p.m.

J. Richard Gott, a professor at Princeton University, will examine theories of how the universe, as we understand it today, came into being. Location: Kaufmann Theater. Program code: HP101L. Fee: $8; $7 members.

Kids' Stuff

A Fun Page for the Naturally Curious from Workman Publishing

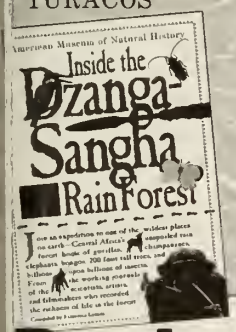
INSIDE THE DZANGA-SANGHA RAIN FOREST

Tropical rain forests are home to half the known plant and animal species in the world. An exciting re-creation of part of the Dzanga-Sangha rain forest in Africa is the centerpiece of the Museum's new Hall of Biodiversity. Using the word list, how many of these 15 rain forest–related words can you find? Look up, down, across, backwards, and diagonally.

WORD LIST

APE
BAAKA
BATS
ELEPHANT
GAO
GORILLA
HYRAX
KOSA
KPONGBO
LANDA
NZAMBI
PANGOLIN
PARROT
POMBA
TURACOS

D	E	L	E	P	H	A	N	T	S	T
K	Z	L	C	E	D	E	P	I	L	L
P	B	A	T	U	R	A	C	O	S	Z
O	C	N	N	O	E	L	E	M	A	H
N	J	D	P	A	N	G	O	L	I	N
G	P	A	R	T	P	A	R	R	O	T
B	I	R	S	J	B	A	A	K	A	K
O	H	Y	R	A	X	A	N	C	O	N
K	E	H	G	B	P	L	N	G	O	N
O	U	X	H	M	J	L	N	L	H	W
S	U	K	F	O	E	I	O	O	A	G
A	V	L	W	P	E	R	S	T	A	B
G	X	M	A	P	F	O	Q	Z	A	P
N	Z	A	M	B	I	G	R	B	T	L

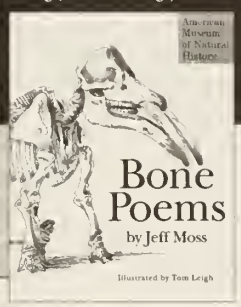


Learn more in INSIDE THE DZANGA-SANGHA RAIN FOREST, just published by Workman Publishing.

Ostracoderms

Ostracoderms were ancient fish
Who had no jaws to chew.
With open mouths their food was slurped
As water filtered through.
Perhaps that's why ostracoderms
Kept such a pleasant mood—
They never had to hear their moms
Say, "Henry, chew your food!"

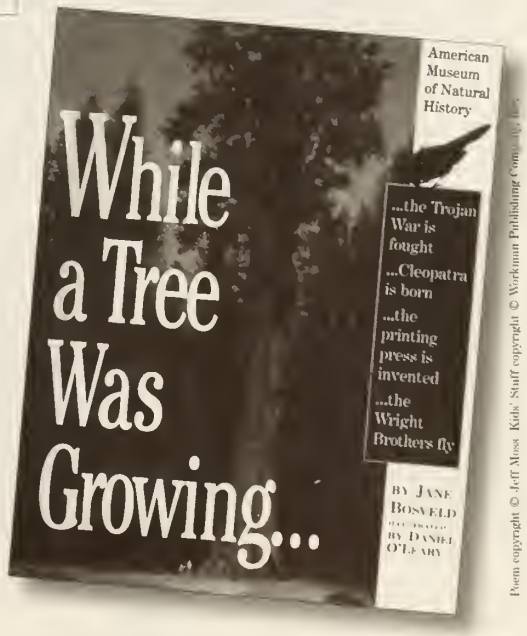
From BONE POEMS *by Jeff Moss*



Book and Author Spotlight

Few of us fail to be astounded by the 17-foot-wide cross section of a giant sequoia tree trunk on view at the Museum. Author Jane Bosveld is no exception. It was this cross section, in fact, that was the inspiration for her book, WHILE A TREE WAS GROWING... Tracing the life of a giant sequoia—from a tiny seed to an over-200-foot-tall giant—the reader also gets a chronology of world events from the Trojan War to the present.

Q: Just how big *are* giant sequoias?
A: Some are as tall as a 25-story skyscraper, with trunks so large it would take 40 people holding hands to circle one of them.
Q: Where are giant sequoias found?
A: At one time they flourished throughout the world. Today, groves of giant sequoias can be found only in the Sierra Nevadas in the western United States.
Q: How did you go about writing this book?
A: First, I did lots of research. I found that a tree keeps a kind of "diary" of its life in its band of rings. Growing out from the center of the tree, there is one ring for each year of a tree's growth. The rings tell the age of the tree and other things as well—such as whether the tree was struck by lightning.
Q: Was there any part of your research that surprised you?
A: I was astonished to learn that giant sequoias are rarely harmed by fire. That's because their bark contains a chemical that is resistant to flames. I also discovered that small forest fires clear areas so that giant sequoia saplings can get the light they need to grow.
Q: What would you like most for this book to do for its readers?
A: I'd like it to inspire a sense of wonder—these trees are truly remarkable.



INSIDE THE DZANGA-SANGHA RAIN FOREST, BONE POEMS, and WHILE A TREE WAS GROWING... are all available at the Museum bookstore and shops as well as at bookstores throughout the country.

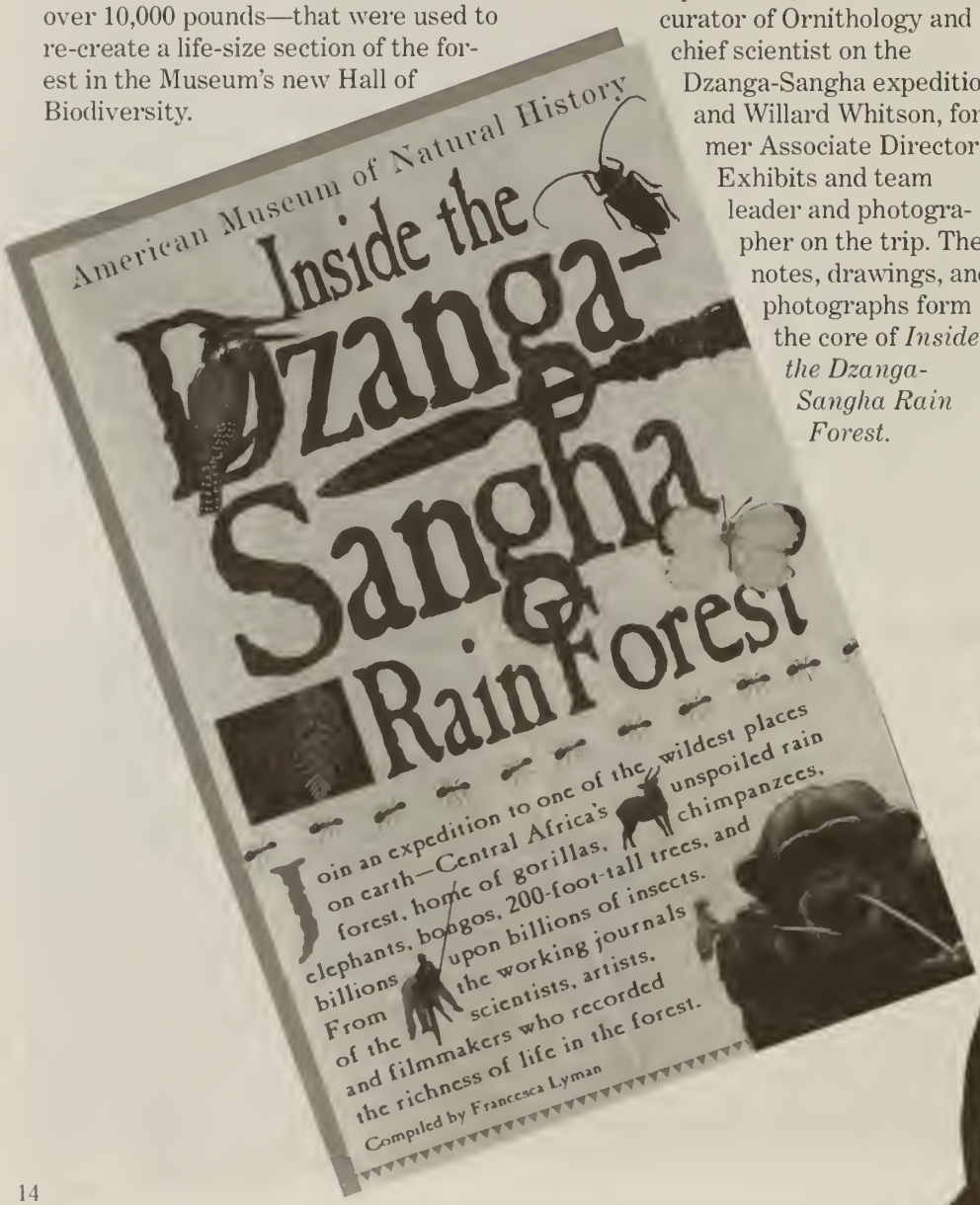
Poem copyright © Jeff Moss Kids' Stuff copyright © Workman Publishing Co., Inc.

museum notes

Inside the Dzanga-Sangha Rain Forest

How does one go about creating a rainforest in New York City? *Inside the Dzanga-Sangha Rain Forest* , a co-publication of the Museum and Workman Publishing, tells the remarkable story of how twenty Museum scientists, artists, and filmmakers spent six weeks in the Dzanga-Sangha Rainforest in the Central African Republic researching and collecting materials—over 10,000 pounds—that were used to re-create a life-size section of the forest in the Museum's new Hall of Biodiversity.

To record the day-to-day events of the expedition, the Museum's Special Publishing Department asked six members of the team to keep journals of their work and experiences: Geralyn Abinader, videographer and member of the Exhibition Department; Pamela Beresford, a graduate student in the Department of Ornithology; Brian Morrissey, an artist, designer, and exhibit preparator; Stephen C. Quinn, senior production manager in the Exhibition Department; Joel Cracraft, curator of Ornithology and chief scientist on the Dzanga-Sangha expedition; and Willard Whitson, former Associate Director of Exhibits and team leader and photographer on the trip. Their notes, drawings, and photographs form the core of *Inside the Dzanga-Sangha Rain Forest.*



Readers will learn about the extraordinary amount of preparation and work involved in conducting scientific field research, as well as the physical hardships the team faced, including having to hide from an oncoming elephant and being showered by ants when cutting down a tree. They will also learn about the dull moments on the expedition, when long hours were spent labeling, preparing, and packing specimens. In addition to describing the team's experiences , the book discusses the ecology of rainforests and the diversity of the plant and animal species that live there.

At the Museum, visitors are able to see a reconstruction of the Dzanga-Sangha Rainforest—a phenomenal open diorama. Many of the specimens collected on the expedition—woody material, such as small trees, vines, branches, and leaves—are part of the diorama; the larger trees were re-created using molds of bark made on-site. Over 300,000 leaves, created, trimmed, and painted by volunteers, were also used in the diorama. And digital photography, video, and sound taken in the field are used to simulate forest ambiance.

Inside the Dzanga-Sangha Rain Forest is a unique, firsthand chronicle of scientists in the field. With over 200 color photos and sketches, the book will appeal to readers age eight and older who want a close look at the complexity of the rainforest and are curious about how scientists work. The book is available in the Museum bookstores for $12.95.

American Museum of Natural History

Fifth Annual

Family Party 1998

Wednesday, October 7,
5:00–7:30 p.m.

Arts and crafts, pre-teen activities, science and educational activities, treasure hunts, entertainment, music, fun family 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 $300 each

Enclosed is my check for $_____ (Each ticket is tax-deductible less $50)

____ Please send me an invitation

Please Print:
Name: _____

Address: _____

City: _____ State: _____ Zip: _____

Daytime telephone: _____

Please make checks payable to the American Museum of Natural History and mail coupon to :
The Family Party, AMNH, Central Park West @ 79th Street, New York, N.Y. 10024-5192

SET ASIDE A NEST EGG FOR YOUR RETIREMENT NOW...

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 _____

City _____ State _____ Zip _____

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 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. Children explore our famous fourth-floor dinosaur halls with a birthday party coordinator and then head to the party room, where they learn how fossils are formed, handle casts of fossils, and make their own fossil cast to take home.

Perhaps you might opt for the Safari Party, where children learn about African natural history and cultures. Afterwards, they 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 the Aquanaut Party. Children journey to the depths of the sea during a visit to the Hall of Ocean Life and learn about some of the world's largest living animals. Later on, the children examine plants, animals, and products that come from the sea, make their own marine creature, and play party games.

Parties are held on Friday, Saturday, and Sunday, and last for two hours. Each party includes a hall tour, a demonstration of relevant artifacts, 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.

Museum Hours

Exhibition Halls

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

The Museum Library

Tues. - Fri.	11:00 a.m. - 4:00 p.m.

Museum Dining

Diner Saurus Fast Service Eatery

Daily	Temporarily closed

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.

Natural Science Center

There are many wild places in the New York area, and the Center features these habitats' 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.

The Museum Shop

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

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.

Central Reservations Coupon

Program Name/Date # Members #Non-Members $ Amount

Total $

Mr./Mrs./Miss/Ms.

Address

City State Zip

Telephone (Day) (Evening)

Membership No.

❑ Check ❑ Am.Ex. ❑ Visa ❑ Master Card

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 above 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.

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 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.

American Museum of Natural History

Membership Department,
Central Park West at 79th Street
New York, New York 10024-5192

Rotunda
AM. MUS. NAT. HIST. LIBRARY
Received on: 09-14-98

Don't miss The Sacred Arts of Haitian Vodou, opening October 10

70.U52
23
. 9
tober
98

Rotunda

Vol. 23, No. 9 October 1998

the 1998 margaret mead film & video festival

butterflies exhibition

members' lectures

halloween celebration

American Museum of Natural History Members' Newsletter

1998 margaret mead film & video festival

Created in 1977 as a one-time commemoration of the famous anthropologist's fifty years of service at the Museum, the Margaret Mead Film & Video Festival has become an annual event. Today, it is the preeminent showcase for documentary film in the United States. Screening films from countries as diverse as Congo, Finland, and Taiwan, the nine-day festival investigates the latest trends and ideas in documentary filmmaking and indigenous media projects.

This year, the festival will offer the first United States retrospective of the work of Haitian-born filmmaker, Raoul Peck. Formerly Haiti's Minister of Culture, Peck has produced a body of work examining issues ranging from Haitian and African politics to aspects of cultural displacement. In addition to Peck's films, the festival will screen a selection of rarely shown Haitian films, such as *Voodoo Dance*, an exploration of the Afro-Caribbean religion Vodou as practiced in the diaspora; and *Breaking Leaves* and *Put Your Feet in Water*, two films that look at traditional approaches to medicine and healing. Other festival highlights include "From Sand to Celluloid," an exploration of Australian Aboriginal media, and "Relocating Home," a series of new documentaries from Taiwan created after the lifting of martial law ten years ago.

***Pepino Mango Nance* (1997), by Gillian Goslinga and Bann Roy**

Of the more than sixty films that will be presented at the festival, many are making their U.S. or New York premieres. Among them are the opening night film, *Caught in the Act* (France, 1994), by Raymond Depardon—a hyperrealistic look at the French judicial system; *The True Story of Warthog* (Poland, 1997), by Krzysztof Wierzbicki and Tomasz Zygadlo—an absurdist story about national symbols and the power of asserting the "truth" through professional jargon; *Children of Gaia* (Denmark, 1998), a highly stylized documentary by Bente Milton that weaves traditional responses to physical deformities with portraits of individuals who live with a range of disabilities; *Gracious Curves* (Finland 1997), a provocative view of women, their bodies, and the process of aging by Kiti Luostarinen; *Lumumba—Death of a Prophet* (Congo, 1991)—Raoul Peck's masterful blend of archival film, interviews, and home movies in an exploration of the relationship between private recollection and public history; *Spudwrench-Kahnawake Man* (Canada, 1997), by Alanis Obomsawin—a celebration of the Mohawk steelworkers who helped construct many of the buildings in New York City; *Moon Children* (Taiwan, 1990), a sensitive portrait of the discrimination faced by albino citizens in Taiwan by Wu Yii-Feng; *Skin's Sorrow* (Belgium, 1997), Richard Olivier's intriguing examination of taxidermy and the immortalization of love; and *Bread Day* (Russia, 1998), Sergei Dvortsevoy's depiction of a dwindling community of pensioners struggling to eke out an existence in a settlement outside of St. Petersburg.

Raymond Depardon

***Caught in the Act* (Delits Flagrants, 1994), by Raymond Depardon**

Other noteworthy films include Alisa Lebow's and Cynthia Madansky's *Treyf* (U.S., 1998). Treyf, a Yiddish word meaning "unorthodox," is the story of two Jewish lesbians who met and fell in love at a Passover seder. The film examines a range of issues, including homophobia and Zionism. *Dear Doctor Spencer: Abortion in a Small Town*

ght Patrol (1997), by Pat Fiske and Valerie Napaljarri Martin

J.S., 1997) is a remarkable work about small-town doctor from Ashland, ennsylvania, who performed safe and expensive abortions for women at a time when it was illegal. The Australian film, *Night Patrol* (1997), by Pat Fiske and Valerie Napaljarri Martin, shows how a group of daring aboriginal women, many grandmothers and widows, took control of their community by founding their own policing program. The animated short, *Totem Talk* (Canada, 1997), by Annie Frazier Henry, offers a new way for both young and old to learn about Northwest Coast native symbols and traditions. Frances Calvert's film, *Cracks in the Mask* (Torres Strait Islands, 1997), addresses the controversial issues of the role of ethnographic museums and the rights of indigenous communities to reclaim their material culture.

The festival will run at the Museum from Friday, November 6 through Saturday, November 14. Films will be shown in a number of different program formats, from a single, full-length movie to multiple short films. Ticket prices are per program. Several of the filmmakers will be available for discussion after the screenings. For a complete program guide, call (212) 769-5305.

Advance ticket purchases can be made by calling (212) 769-5200, Monday through Friday, 8:00 a.m to 6:00 p.m., and Saturday 10:00 a.m. to 6:00 p.m. On-site purchase of tickets will begin on October 1 at the advanced ticket sales area in the Theodore Roosevelt Rotunda, Central Park West entrance.

For members, students, and senior citizens, ticket prices are $7 for one program; $24 for four programs; and $55 for ten programs. General public ticket prices are $8 for one program; $28 for four programs; and $65 for ten programs. The opening night film and reception with the filmmaker is $50; it is limited to 100.

This event is made possible with public funds from the New York State Council on the Arts, a State Agency.

Cover Photo: Haitian farmers in a scene from *Desounen: Dialogue with Death* (1994), by Raoul Peck.

rotunda

ISSN 0194-6110

Vol. 23, No. 9, October 1998

Cleo Cacoulidis, Editor
Michel DeMatteis, Copy Editor
Peggy Conversano, Designer
Rosemary Caulk, Director of Membership

Rotunda is published monthly, except for a combined issue in July/August, by the Membership Office of the American Museum of Natural History, Central Park West @ 79th Street, New York, N.Y. 10024-5192. Telephone: (212) 769-5606. Museum membership of $45 per year and up includes a subscription to *Rotunda*. © 1998 American Museum of Natural History. Periodical postage paid at New York, N.Y., and at additional mailing offices. Postmaster: Please send address changes to *Rotunda*, Membership Office, AMNH, at the above address. Printed in the USA.

events & exhibitions

J. Beckett

Butterflies

Of all insects, butterflies are among the best known, and possibly the best loved. Their beautiful colors and patterns and their spectacular life cycle—metamorphosing from egg to larva, pupa, and finally imago, or adult—have made them as endearing as they are popular. Yet few individuals are aware of the important role butterflies play in conservation. The exhibition *Butterflies* will offer visitors the chance to learn about these marvelous creatures while simultaneously delighting their senses.

Denis Finin

In the Museum's Hall of Oceanic Birds, a specially constructed sixty-foot-long, walk-in, translucent vivarium will house hundreds of free-flying butterflies. Visitors will be able to wander among flowering tropical plants and watch as iridescent blue morphos, zebra longwings, swallowtails, and orange sulphurs, among other species, flutter past in search of flowers. And if your timing is right, you may witness a pupa's emergence as an adult butterfly. With its temperature regulated at eighty degrees, the vivarium environment approximates the butterflies' natural habitats in Costa Rica and Florida. Accompanying text panels explain the insects' evolution, life cycle, and behavior.

J. Beckett

Butterflies and moths are members of the insect order Lepidoptera. The name is derived from two Greek words meaning "scale" and "wing." Scientists believe that lepidopters probably evolved during the rapid evolution of flowering plants in the Early Cretaceous. Enormously diverse, there are roughly 250,000 recognized species within the Lepidoptera order. Butterflies and moths are found everywhere on earth except for Antarctica, and they range in size from less than two millimeters to more than a foot wide.

Besides enchanting people with their beauty, butterflies perform a valuable conservation function. According to Jim Miller, associate curator in the Museum's Department of Entomology, they can act as indicators of damage to the environment. Because butterflies and moths are plant specific—they only lay eggs on particular plants—if a butterfly species becomes extinct, it may be a warning that a certain plant may also be endangered, as well as all the insects and animals that feed on that plant. The new trend toward butterfly farming, notes Miller, is helping to save endangered species and the environment while also giving local farmers a way to make a living. And collecting butterflies is no longer a big pastime in the United States, since almost every species has already been collected—the Museum has the second largest butterfly collection in the country. "The new activity is butterfly watching, similar to bird watching," says Miller. "This is good thing, because it de-emphasizes killing the insects and stresses their protection while also encouraging people to learn about them."

Butterflies will open on Saturday, November 7 and run through February 28, 1999, in the Hall of Oceanic Birds.

Sacred Arts and Rituals

In conjunction with the exhibition *Sacred Arts of Haitian Vodou*, the Museum will present a series of free weekend events that focus on the arts and rituals of diverse cultures. All programs will be held in the Leonhardt People Center. For further information, please call (212) 769-5315.

Saturday and Sunday, October 24 & 25

The Reincarnation of Khensur Rinpoche (Video, 1991)
1:00–2:00 p.m.

The Reincarnation of Khensur Rinpoche tells the story of Choenzey Dakpa Samdub, a Tibetan monk in search of the reincarnation of his master, the revered cenobite Khensur Rinpoche, who died in 1985 at the monastery of Drepung in Tibet. Directors Tenzing Sonam and Ritu Sarin movingly portray the relationship between Samdub, his dead master, and the young boy who is recognized as his reincarnation.

Sacred Art of Tibet
1:00 & 3:30 p.m.

Traditionally used to initiate advanced disciples into meditative practices, the Tibetan Buddhist mandalas (sand paintings) date back to the sixth century B.C. Tibetan Lobsang Samten will demonstrate the creation of a mandala while explaining the religious significance of the art.

Sacred Dance and Rituals of India
2:30 & 4:00 p.m.

Sacred dance invokes and manifests the divine through precise body movements, rhythms, and sound. Dancer Manju Prasad-Rao will perform temple and ritual dances that involve the use of prayer (punja) and storytelling.

Sunday, November 15

Days of Awe (Video, 1997)
1:00–1:45 p.m.

Filmmaker Karen Kramer documents the celebrations of an ultraorthodox Jewish community in Brooklyn, New York, during autumn, when the most sacred holidays are observed.

Dancer Manju Prasad-Rao

Byzantine Wood Carving
2:00 & 3:30 p.m.

Master craftsman Konstantinos Pylarinos will demonstrate the technique of Byzantine wood carving and explain the Christian symbols and icons used in this art form, which are a traditional part of the Greek Orthodox religion.

Beautiful Singer (Pesnopojka)
2:30 & 4:00 p.m.

The folk ensemble Pesnopojka, directed by Petrana Koutcheva, will perform an array of traditional songs from the diverse ethnic groups of Bulgaria. At the close of the program, audience members will be invited to participate in a Bulgarian folk dance.

Jim Dutcher

Kamots, alpha wolf of the Sawtooth pack

Wolves and Human Communities: Biology, Politics, and Ethics

In 1996, conservationists proposed the re-introduction of the eastern timber wolf to New York's Adirondack State Park. In order to fully explore the biological, political, and ethical dimensions of this proposal, the Museum's Center for Biodiversity and Conservation (CBC) and the Hastings Center, a bioethics research institute in Garrison, New York, will cosponsor a conference on the issue from October 21 through October 23 in the Kaufmann Theater.

The conference will feature speaker Niles Eldredge, curator of the Museum's Department of Invertebrates, and others, and will include several panel discussions on the implications of wolf restoration to the Adirondacks. For further information, contact Janet Bower at (914) 424-4040, ext. 202.

members' programs

Expeditions

All expeditions, unless otherwise noted, include round-trip transportation (via charter bus from the Museum) and lectures. Pack a picnic lunch and wear appropriate clothing. A detailed itinerary, along with specific instructions, will be sent to all registered participants two weeks prior to the program date.

Ethnobotany at the Institute for American Indian Studies

Saturday, October 3, 8:30 a.m.–6:00 p.m.

Enjoy a two-hour drive through the Northwest Hills to Washington, Connecticut, during autumn, when the foliage is ablaze in hues of orange, red, and gold. The destination is the Institute for American Indian Studies. While there, you will visit the institute's museum, ethnobotanical trails, medicine-wheel garden, healing-plants walk, and an adjacent 2,000-acre nature preserve.

Come and join this unique tour and learn about the area's 12,000-year-old history. Program code: MM1-10. Fee: $70; members only. (lunch included)

"Birding" at Brigantine Wildlife Refuge

Saturday, October 17, 8:00 a.m.–6:00 p.m.

Join Museum naturalist Stephen C. Quinn for a day of bird watching, or "birding," at the Brigantine National Wildlife Refuge in southern New Jersey. Program code: MM4-10. Fee: $70; members only.

S. Rice and T. Bierwert

Golden Light, by Francis L. Jaques

Alfonso Silva Lee

Lectures

The Natural History of Puerto Rico

Sunday, October 4, 2:00 p.m.

Renowned Cuban biologist and photographer Alfonso Silva Lee will present a slide-illustrated lecture on his latest book, *Natural Puerto Rico*. Kaufmann Theater. Program code: MM2-10.
Fee: $8 members; $10 non-members.

Imagining Atlantis

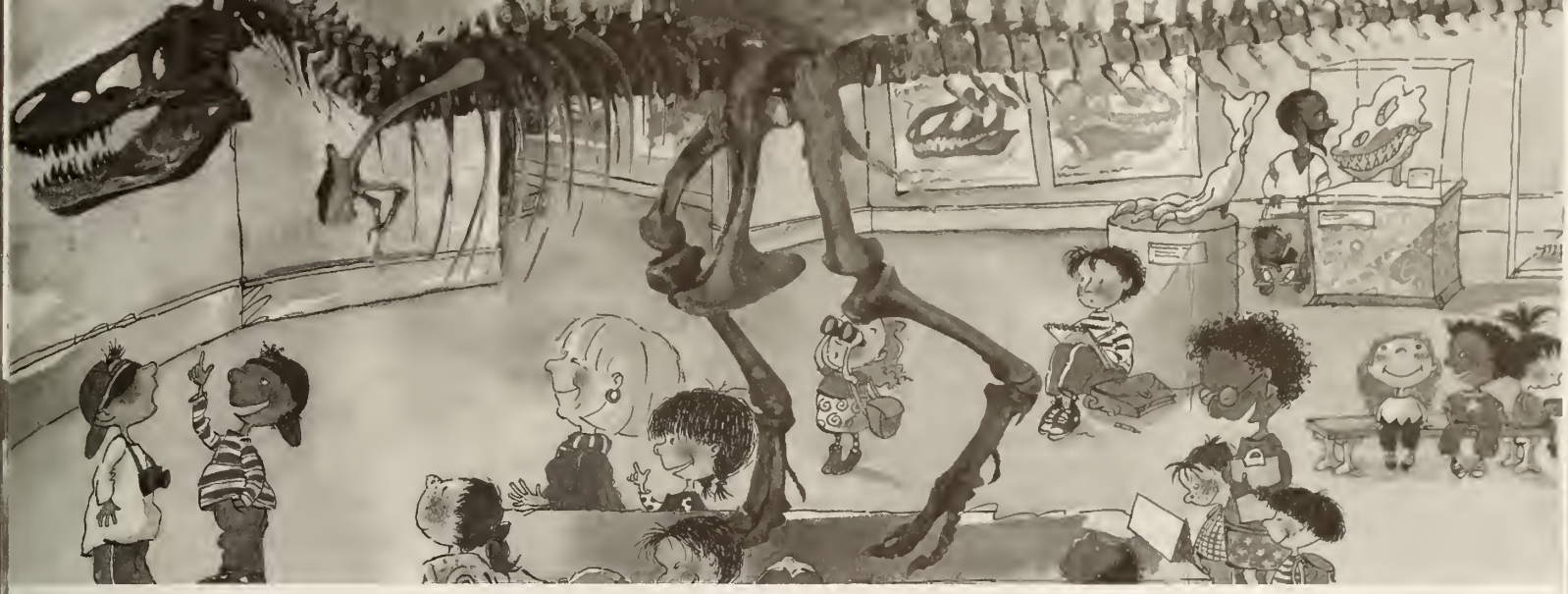
Tuesday, October 6, 7:00 p.m.

In a slide-illustrated lecture, author and artist Richard Ellis will discuss his latest book, *Imagining Atlantis*. Kaufmann Theater. Program code: MM3-10.
Fee: $8 members; $10 non-members.

Wild New York

Tuesday, October 20, 7:00 p.m.

Join authors Margaret Mittelbach and Michael Crewdson for a lecture and



low to Take Your Grandmother to the Museum, by Lois Wyse and Molly Rose Goldman

lide show on their recent book, *Wild New York: A Guide to the Wildlife, Wild Places, and Natural Phenomena of New York City*. Kaufmann Theater. Program code: MM5-10. Fee: $8 members; $10 non-members.

Behind-the-Scenes in the Entomology Department

Tuesday, November 10 & Thursday, November 12
:00 p.m. & 7:30 p.m.

Take advantage of this rare opportunity to explore one of the world's largest insect collections, comprising over 17 million specimens, housed here at AMNH. Insects form an enormous portion of the animal kingdom, surpassing all other groups in numbers of species. This collection is the primary tool used by entomologists at the Museum to examine and classify the world's insects.

Join the curators to examine a few of the 40,000+ drawers which store the insects and to hear about the techniques and the innovative research at the Museum. David Grimaldi, curator, chairman of the department, and author of *Amber: Window to the Past*, will introduce you to his specialty, flies, and present some fascinating specimens of amber. Learn about butterflies and moths from James Miller, curator of the current exhibition *Butterflies*, and about beetles, a group that represents nearly one-sixth of all organisms on earth, from our expert in this field.

Choose 6:00 or 7:30 p.m. on either date to participate in this 1 1/2 hour tour. Each tour is limited to 25 participants, so please register early! Program code: MM1-11. Fee: $30; members only.—R. Caulk

How to Take Your Grandmother to the Museum

Sunday, November 22, 2:00 p.m.

Learn how best-selling author Lois Wyse and her ten-year-old granddaughter, Molly Rose Goldman, co-wrote the delightful children's book, *How to Take Your Grandmother to the Museum*, a story about their numerous adventures at the American Museum of Natural History. The two will share their experiences about the project, including their ideas for the story, how they selected the illustrations, and their work with the book's editor. After the talk, children will have the opportunity to take their grandmothers on a tour similar to the one described in the book.

Location: Kaufmann Theater. Program code: MM2-11. Fee: $10 members: adult and one child. Each additional child is $3; $10 adults $5 children, non-members.

Hall Tours

Superstitious Nature

Friday, November 13, 6:30 p.m.

Do you feel lucky? What better time than Friday the 13th to test the limits of fate. Join Robert Campanile on this engaging tour and discover how the roots of superstition can be traced back to nature. The Museum's halls provide several clues to many of our ancient beliefs. Come and learn why you carry a rabbit's foot and avoid black cats. Program code: MM4-11. Members only.

Bread and Brew

Friday, November 20, 6:30 p.m.

In the spirit of the Thanksgiving holiday, join Robert Campanile and discover ancient bakers and brewers. The history of bread and brew involves more than yeast, water, flour, and heat. War, plagues, and the supernatural are just a few of the other ingredients that have made bread rise and brew flow over the centuries. Did humans live by bread and brew alone? Come find out. Program code: MM3-11. Members only.

You are cordially invited to attend a Members' Preview of Butterflies

Denis Finin

featuring live, free-flying tropical butterflies from Central America in the Hall of Oceanic Birds

Friday, November 6, 1998
5:30–8:30 p.m.
Please present your membership card for admission.

October

Current Exhibits

Spirits in Steel: The Art of the Kalabari Masquerade
Gallery 77 through January 31, 1999
Cave of the Warrior
Library Gallery through December 6
Sacred Arts of Haitian Vodou
Gallery 3 through January 3, 1999

Thursday 1

The Magic of Sound

Jim Metzner will discuss the mystery of sound.
7:00–8:30 p.m.; Program code: ED98221L

Friday 2

Amateur Astronomers Association

Linder Theater; 6:00 p.m.

Saturday 3

Ethnobotany at the Institute for American Indian Studies

Members' expedition to Connecticut.
8:30 a.m.–6:00 p.m.; Program code: MM1-10.

Sunday 4

The Natural History of Puerto Rico

Lecture by Cuban biologist and photographer Alfonso Silva Lee.
Kaufmann Theater; 2:00 p.m.; Program code: MM2-10

Monday 5

Tuesday 6

Imagining Atlantis

Lecture by author Richard Ellis.
Kaufmann Theater; 7:00 p.m.; Program code: MM3-10

Wednesday 7

Thursday 8

Imagine Heaven: The Sacred Arts of Haitian Vodou

Lecture on Haitian Vodou.
7:00–8:30 p.m.; Program code: ED98223L

Friday 9

Saturday 10

Sunday 11

Vodou: A World of Religion

Lecture on the cultural traditions of Haitian Vodou.
Kaufmann Theater; 2:00–4:30 p.m.

Monday 12

Tuesday 13

Wednesday 14

New York Mineralogical Club

Linder Theater; 6:30 p.m.

Thursday 15

Race, Memory, and Historical Consciousness in Vodou

Lecture by Vodou priestess Mama Lo and professor Karen Brown.
7:00–8:30 p.m.; Program code: ED98223L

Friday 16

Saturday 17

"Birding" at Brigantine Wildlife Refuge

Members' bird watching expedition.
8:00 a.m.–6:00 p.m.; Program code: MM4-10

Sunday 18

New York Paleontological Society

Edith C. Blum Classroom; 2:00 p.m.

Children's Workshop: Dinosaur Laboratory

Children create fossil reconstructions. Ages 8 & 9.
10:30 a.m.–1:30 p.m.; Program code: ED98418C

Monday 19

Tuesday

20 Wild New York

Authors Margaret Mittelbach and Michael Crewdson lecture on wildlife in New York City.
Kaufmann Theater; 7:00 p.m.; Program code: MM5-10

Wednesday

21 Wolves and Human Communities

Conference on the re-introduction of the wolf to Adirondack State Park.
October 21-23. For information, call (914) 424-4040.

Thursday

22 Negotiating Life and Death at the Vodou Crossroads

Lecture on Haitian Vodou.
7:00–8:30 p.m.; Program code: ED98223L

Friday

23 New York Stereoscopic Society

Edith C. Blum Classroom; 7:00 p.m.

The Tell Tale Tour

Hall tour with Robert Campanile.
6:30 p.m.; Program code: MM6-10

Saturday

24 Children's Workshop: Biodiversity: Amazing Habits of Long Ago

Field trip to Big Brook River, New Jersey, with follow-up Museum laboratory workshop. Ages 11-13. *9:00 a.m.–4:00 p.m.; Program code: ED98420C*

Sunday

25 Children's Workshop: More Than Moccasins

Children learn about Native American traditions and culture. Ages 8 & 9.
10:30 a.m.–1:30 p.m.; Program code: ED98421C

Monday

26 Biodiversity and Your Water Supply

Lecture on water conservation and its effects on water quality.
7:00–8:30 p.m.; Program code: ED98330L

Tuesday

27 Linnaean Society of New York

Kaufmann Theater; 7:30 p.m.

Wednesday

28 Fields of Sun and Grass

Lecture by Jonathan R. Quinn on the New Jersey Meadowlands.
7:00–8:30 p.m.; Program code: ED98235L

Thursday

29 The Role of Vodou in Haitian History and Culture

Lecture on Haitian Vodou.
7:00–8:30 p.m.; Program code: ED98223L

Friday

30 Halloween

Hall tour with Robert Campanile.
6:30 p.m.; Program code: MM7-10

Saturday

31 Discovery Room Opens November 1

Museum Magic theme for the month: Mystical Morphs; 2:00 p.m. Free for children five and above, located in the Leonhardt People Center.

Phone Numbers at Your Fingertips

Museum Information	(212) 769-5100
Membership Office	(212) 769-5606
Planetarium Information	(212) 769-5900
Member Birthday Parties	(212) 769-5154
Education Department	(212) 769-5310
Planned Giving Office	(212) 769-5119
Discovery Tours	(800) 462-8687
*toll-free outside NYState	(800) 453-5734
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
Internet	http://www.amnh.org

Upcoming Exhibits

Papua New Guinea: Art and Spirits Photographs from the Middle Sepik River, 1953-54
Opens October 23

Butterflies
Opens November 7

Margaret Mead Film Festival
From November 6 through 14

Primates: The Jean Baulu Collection of Antique Prints
Opens December 21

For program reservations, please call (212) 769-5200

Photo by Denis Finnin

program listings

Department of Education

Lectures

Climate: Change and Discovery

In this unique, four-part lecture series, internationally recognized scientists will discuss factors that influence our present-day climate, from El Nino to global warming. The fee for the series is $30; $27 members. Individual lectures are $12; $10 members. Program code: ED98230L.

Prospects for Predicting El Nino and Its Consequences

Wednesday, October 14, 7:00–8:30 p.m.

Discussion will center on improving forecasts of El Nino and the Southern Oscillation in light of problems affecting current forecasts, including limits to predictability and model flaws. Professor Mark Kane, Lamont-Doherty Earth Observatory, Columbia University, will present the lecture.

Ocean Circulation: Will Man-Made CO2 Upset the Current Balance?

Wednesday, October 21, 7:00–8:30 p.m.

Wallace S. Broecker, an expert on oceanic and atmospheric CO2, will lecture on the ocean's thermohaline circulation and how it operates. Broecker is a professor at Columbia University's Lamont-Doherty Earth Observatory and the author of *How to Make a Habitable Planet.*

The Global Warming Debate

Wednesday, October 28, 7:00–8:30 p.m.

In describing how scientific knowledge of global climate change has advanced in the past twenty years, James E. Hansen, a scientist with the NASA-Goddard Institute of Space Studies in New York, will focus on the increasing public awareness of climate change and the need for more discussion about the underlying scientific debates.

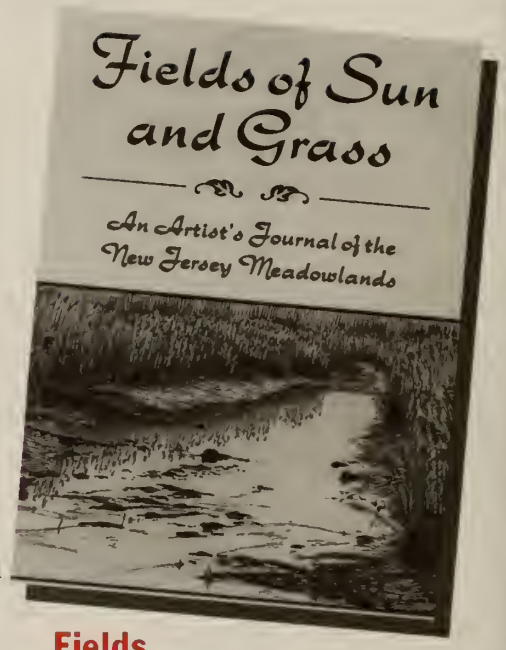
The Significance of Rapid Climate Change Events

Wednesday, November 4, 7:00–8:30 p.m.

Paul A. Mayewski will talk about how predictions of future climate changes may be significantly improved by concentrating not only on greenhouse gases and sulfate aerosols, but also on natural modifications in atmospheric circulation. Mayewski is a professor at the Institute for the Study of Earth, Oceans and Space, as well as director of the Climate Change Research Center, University of New Hampshire.

Peter Goldberg

Lightning over New York



Fields of Sun and Grass

Wednesday, October 28, 7:00–8:30 p.m.

Jonathan R. Quinn will discuss his book, *Fields of Sun and Grass: An Artist's Journal of the New Jersey Meadowlands,* which chronicles the origin and history of the meadowlands. The talk will be illustrated with Quinn's field sketches and drawings of this uncommon "urban wilderness" six miles from Manhattan. Quinn is an artist-naturalist and has published ten books on nature and science. Program code: ED98235L. Fee: $15.

The Future of Science

Thursday, November 5, 7:00–8:30 p.m.

What wonders of science will the 21st century bring? What is now known about DNA, gravity, and artificial intelligence may be only a hint of what is to come. John Maddox will consider these issues, among other things, in his talk on his latest book, *What Remains to Be Discovered: The Future of Science.* Maddox is the editor emeritus of *Nature Magazine.* Program code: ED98236L. Fee: $12.

Multicultural Programs

Vodou: A World Religion

Sunday, October 11, 2:00–4:30 p.m.

An exploration of the different cultural traditions from which Haitian Vodou emerged, including vodun in Benin, the Congo Lemba Society, and the Yoruba customs of West Africa. Panelists will also discuss vodou in Haiti and similar religious forms found in Brazil, Cuba, and Trinidad-Tobago. Location: Kaufmann Theater. Free.

Spirits in Celluloid: Haiti, Hollywood, and the Mass Media

Saturday, November 14, 2:00–4:30 p.m.

Scholars and professionals from film, television, radio, and newspapers will discuss the depiction of Haiti and Haitian culture in the mass media, particularly in Hollywood movies. Location: Kaufmann Theater. Free.

Workshops

Hawk Watch Migration

Friday, October 30–Sunday, November 1

Participants will practice their birding skills while observing an array of hawks, falcons, and other raptors as they pass through northern New Jersey. The weekend includes a stop at Bashakill Marsh in New York, evening presentations, and a live bird show featuring hawks. The program is limited to twenty adults. Monica Volkman, Museum educator, and Joseph DiCostanzo, naturalist, lead the trip. Program code: ED98336X. Fee: $300. Fee includes transportation, lodging, meals, and lectures.

Hayden Planetarium Lectures

Visions: Terraforming Planets, Starships, and Alien Civilizations

Monday, November 2, 7:30 p.m.

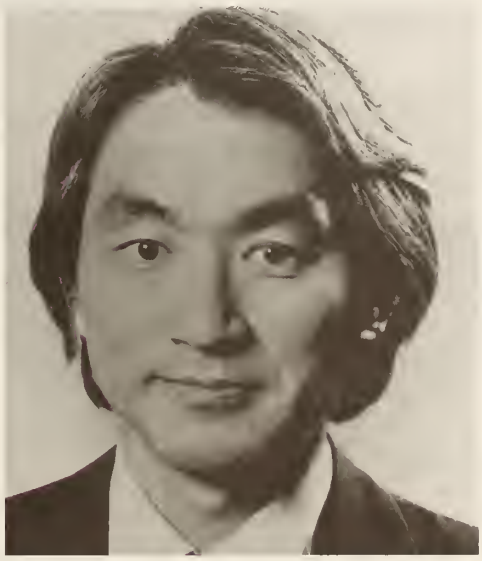
Physicist and author Michio Kaku will discuss his latest book, *Visions: How Science Will Revolutionize the 21st Century*. The lecture will include a slide and video presentation.

Bierwert and Logan

Winter Hawk

In light of how new research with DNA, computers, and quantum revolutions will alter life over the next 100 years, Kaku will examine, among other things, the physics of interstellar star ships—such as jam-jet fusion engines, photon engines, and solar sails—and the development of the physics of terraforming planets.

Kaku holds the Henry Semat Professorship in Theoretical Physics at City



Andrea Brizzi

Michio Kaku

University of New York. He has written nine books and hosts an hour-long, weekly radio science program broadcast by several stations across the United States. Location: Main Auditorium. Program code: HP111L. Fee: $8.

Hayden Planetarium Courses

Changing Their Orbits: Women in Astronomy

Wednesday, October 7, 6:30–8:40 p.m.

This course will explore women's contributions to the field of astronomy, particularly during the last 100 years. Lecturer: William Dorsey. The class will run for six sessions, through November 18. Program code: HP38. Fee: $70.

Through Space and Time

Wednesday, October 7, 6:30–8:40 p.m.

Sune Engelbrektson will discuss the history of astronomy and talk about the instruments used to detect planets, constellations, galaxies, and the life and death of stars. The course will run for ten sessions, through December 16. Program code: HP39. Fee: $110.

Weather and Climate

Thursday, October 8, 6:30–8:40 p.m.

Lecturer Barry Grossman will talk about the atmosphere. Participants will learn about atmospheric effects, such as rainbows and twinkling stars, as well as about aspects of weather forecasting. No formal training in physics or mathematics is required. The course will run for eight sessions, through December 3. Program code: HP24. Fee: $95.

program listings

Children's Workshops

Mayan Times

Sunday, October 18, 10:30 a.m.–1:30 p.m.

Children will learn about Mayan customs and rituals and examine some Mayan writings and artifacts while visiting the Hall of Mexico and Central America. Afterwards, the kids will create their own clay pottery using Mayan techniques. Bilingual Spanish / English educator Bonita Grandal will present the program. Ages 9 & 10. Program code: ED98416C. Fee: $25.

Yuck! Wonderful Wigglies

Sunday, October 25, 10:30–11:30 a.m.

Through experiments and observation, children will discover the characteristics and habits of earthworms. Stories, songs, and earthworm puppets to take home are part of the workshop. Lisa Mielke, outreach coordinator and instructor for Aquarium for Wildlife Conservation, will present the program. Ages 5 & 6. Program code: ED98419C. Fee: $20.

Illustration by Pavel Kostal

Rota

Mayan figurine

Taking Good Photographs

Two Sundays, November 1 & 8, 10:30 a.m.–12:30 p.m.

Using as examples famous photographs of people, places, and animals, children will learn how to frame and compose a photo. Afterwards, children will make their own pinhole camera and tour the Museum taking practice photographs with disposable cameras. The program will be presented by Nancy Millet, photographer for *Rolling Stone*, *Hollywood Gazette*, and *Music Connection*. Ages 10 & 11. Program code: ED98423C. Fee: $ 40.

Unraveling Fibers

Sunday, November 8, 10:30 a.m.–1:30 p.m.

Clothes can keep you cool or warm; they can be stretchy and lightweight or stiff and heavy. As children learn about the variety of fibers used to make cloth, they will untangle and spin fibers into yarn and weave on simple looms. Regina Kelly, Montclair State University, will teach the workshop. Ages 8 & 9. Program code: ED98424C. Fee: $25.

Kaboom: Volcanoes and Black Smokers

Sunday, November 8, 10:30 a.m.–1:30 p.m.

Newly created islands, black smokers along undersea volcanic chains, and hot springs will be the focus of this workshop. Children will learn about the mysterious forces that break up the earth's surface through earthquake games and information retrieval on the internet. Margaret Carruthers, a geologist in the Museum's Earth and Planetary Sciences Department, will present the program. Ages 10 & 11. Program code: ED98425C. Fee: $25.

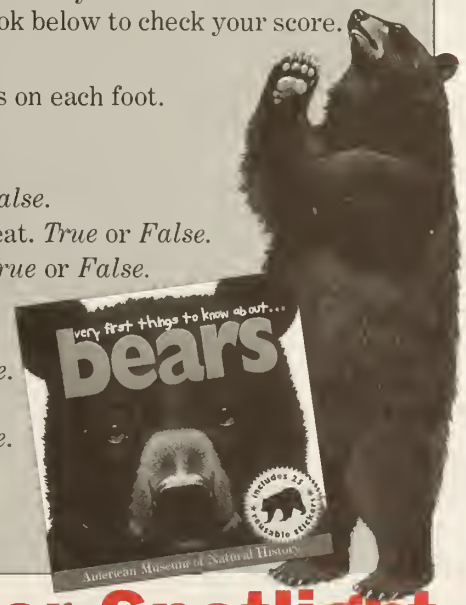
Kids' Stuff

A Fun Page for the Naturally Curious from Workman Publishing

THE BEAR FACTS

Do you know a lot of about bears? See how many of the sentences below are true or false. Circle your answer. Then look below to check your score.

1. A bear is a mammal. *True* or *False.*
2. Bears have five toes and five sharp claws on each foot. *True* or *False.*
3. Bears can stand upright. *True* or *False.*
4. There is only one kind of bear. *True* or *False.*
5. Bears are very choosy about what they eat. *True* or *False.*
6. Brown bears are good at catching fish. *True* or *False.*
7. Bears are smart, curious and have good memories. *True* or *False.*
8. Bears are slow and clumsy. *True* or *False.*
9. All bears build dens where they stay during cold winter months. *True* or *False.*
10. Bear cubs are born blind. *True* or *False.*
11. Bear cubs love to play. *True* or *False.*
12. Bears live in groups. *True* or *False.*



Book and Author Spotlight

Several years ago an expedition of American Museum of Natural History staff traveled to a rain forest in the Central African Republic to gather material for our new Hall of Biodiversity. Filmmaker Geralyn Abinader went along to direct the videos that would be part of the installation. Along with other expedition team members, she tells the story of their two month journey in INSIDE THE DZANGA-SANGHA RAIN FOREST.

Q: How many people went on the exhibition?

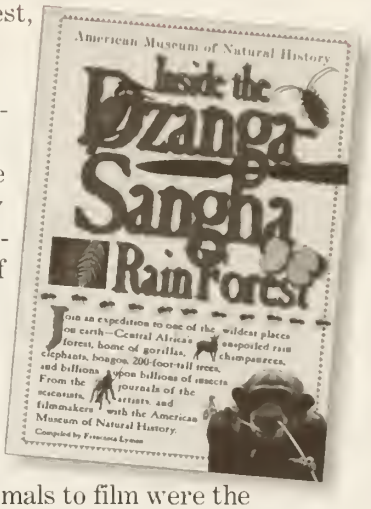
A: There were twenty of us. Some were artists who would draw and paint the animals. Some were scientists such as ornithologists, who study birds, and mammalogists, who study mammals. There was also a plant collecting team. I was part of the audiovisual crew who's job was to record the sights and sounds of the forest.

Q: What is it like to live in the rain forest?

A: We had a really nice place to stay—the Doli Lodge—which was like a sleep-away camp, except that the bathrooms had waterbugs, gigantic spiders and cockroaches two inches long. They clung to everything. We couldn't get them off our toothpaste tubes!

Q: What did you do everyday?

A: The film crew scouted locations and shot a lot of film–over 30 hours in total. We wanted to show the way the local people use the forest, and stress the importance of biodiversity, which is the rich variety and interdependence of plant and animal life.



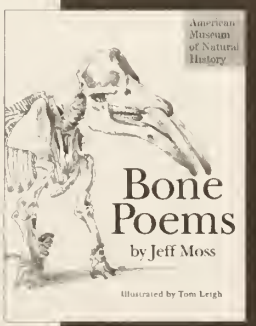
Q: Did you film animals?

A: My favorite animals to film were the elephants. The chimpanzees didn't want to be in our films—they would throw things at us to make us go away.

Q: What do you hope the exhibit—and the book—will teach people?

A: The future of Dzanga-Sangha, and other rain forests around the world—depends on people understanding rain forests and working to preserve them. I hope our trip, and the exhibit and the book help to educate people that the rainforests are vital to the health of the whole planet.

A Poem to Help You Figure Out What Bone the Patella Is



A hairy young primate named Stella
Once yelled, "Ow! I hurt my patella!"
So her mom chimpanzee
Simply bandaged her knee
And made well a patella of Stella

From BONE POEMS *by Jeff Moss*

VERY FIRST THINGS TO KNOW ABOUT BEARS, INSIDE THE DZANGA-SANGHA RAIN FOREST, and BONE POEMS are all available at the Museum bookstore and shops as well as at bookstores throughout the country.

Answers: 1. True 2. True. 3. True. 4. False 5. False. 6. True. 7. True. 8. False 9. False. 10. True. 11. True. 12. False
• Score: 1–6 correct. You are a bear beginner. • 7–10 correct . Keep up the good work. • 11–12 correct. Give yourself a bear hug—you know your bear facts!

Kids Stuff copyright © Workman Publishing Company, Inc

museum notes

Development News: IRAs and the Proposed Tax Bill

By Jane Palmer

Since members regularly inquire about making gifts to the Museum from an IRA or other retirement plan, it may be worthwhile to note that there is a bill now before Congress, H.R. 2821, that would allow individuals to make gifts from these retirement funds to favorite charities without having to pay income tax when the money is withdrawn.

At present, an individual taxpayer *may* withdraw funds from an IRA without penalty after age fifty-nine and one-half, and *must* begin making withdrawals by April 1 in the year after he/she reaches seventy and one-half years old. All IRA withdrawals are fully taxable as income in the years when they are made.

Unfortunately, a donor who withdraws IRA funds to give to charity must pay income tax on the entire withdrawal. The income tax negates any charitable deduction that can be claimed and serves as a *disincentive*, especially to donors who have not yet reached the age when withdrawals are mandatory.

The proposed bill would lighten donors' tax burdens in the following ways:

—If IRA funds are rolled over to a charity as an outright gift, the donor would not owe any income tax on the transfer;

—If IRA funds are used to make a gift that provides lifetime income (such as a Gift Annuity, a Charitable Remainder Trust, or a Pooled Income Fund gift), no income tax would be due at the time of transfer. The donor would only be subject to tax on the subsequent income payments received from the gift plan;

—Donors would also be able to claim a charitable income tax deduction based on the portion of their IRA that can be attributed to their own after-tax contributions. For example, if forty percent of a person's IRA was built up by his/her after-tax contributions, the charitable deduction would be based on forty percent of the amount given to charity.

Even without H.R. 2821, there are ways to use an IRA to support the Museum and other favorite charities. A person can provide in his/her estate plans that any funds remaining in an IRA go directly to charity. Such a gift is completely deductible from the donor's taxable estate and is received in full by the charity.

This is an attractive alternative to leaving the IRA to family members, where it may be heavily depleted by both estate and income taxes.

If a person has reached the age when withdrawals from an IRA are mandatory, outright gifts of those withdrawals to charity may be another appealing option. The donor is able to offset the income tax with a charitable deduction while simultaneously supporting favorite causes.

To inquire about the status of H.R. 2821 and gift options relating to retirement funds, please contact the Museum's Office of Planned Giving at (212) 769-5119 or (800) 453-5734.

The Museum Shops

To celebrate the opening of the exhibition *Sacred Arts of Haitian Vodou*, the Museum Shop on the third floor will feature an exceptional array of Haitian crafts, including flags, pakets, spirit bottles, sequined and beaded ornaments, and colorful tinware. Additionally, the shop will carry a line of vodou-inspired items, such as silk ties and scarves, pins and pendants, bookmarks, and T-shirts, adorned with *veves*, symbols drawn by vodou practitioners. Also available are infant T-shirts and "onesies" decorated with a veve symbol of protection.

Prices range from under $5 to $700. As always, Museum members receive a 10% discount on all their purchases.

Susan Einstein

Sequined flag for Danbala, by Antoine Oleyant; UCLA Fowler Museum of Cultural History

Halloween Celebration

Dress up in your favorite costume and come trick-or-treat at the Museum's third annual Halloween Celebration on Saturday, October 3, from 3:00–7:00 p.m. Meet the characters Snoopy, Ms. Frizzle, Curious George, and Clifford the Big Red Dog,™ among others; listen to singers and storytellers; create scary masks; and take part in several other fun activities. Highlights of the afternoon include a costume parade through the Hall of Ocean Life led by a marching band, and a performance by child cast members of the Broadway show, The Sound of Music.

Admission to the event is $5 per person and includes all Halloween activities. Monster meal dinner packages, including admission, are $10.95 per person. For further information and reservations, please call (212) 769-5200.

C. Chesek

Come celebrate Halloween at the American Museum of Natural History.

Members' Birthday Parties

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. Children explore our famous fourth-floor dinosaur halls with a birthday party coordinator and then head to the party room, where they learn how fossils are formed, handle casts of fossils, and make their own fossil cast to take home.

Perhaps you might opt for the Safari Party, where children learn about African natural history and cultures. Afterwards, they get some hands-on experience with several African objects from the Museum's collections, play safari party games, and make their own African masks.

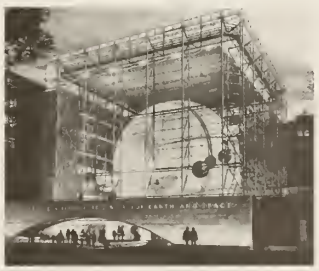
Or, you may choose the Aquanaut Party. Children journey to the depths of the sea during a visit to the Hall of Ocean Life and learn about some of the world's largest living animals. Later on, the children examine plants, animals, and products that come from the sea, make their own marine creature, and play party games.

Parties are held on Friday, Saturday, and Sunday, and last for two hours. Each party includes a hall tour, a demonstration of relevant artifacts, 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.

Provide For Your Retirement

And Help The American Museum of Natural History . . . Move Forward in the New Millennium



The new Frederick Phineas and Sandra Priest Rose Center for Earth and Space, scheduled to open on December 31, 1999

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 _____

City _____ State _____ Zip _____

Phone: (Home): _____ (Office): _____

Your reply is confidential and implies no obligation.

Museum Hours

Exhibition Halls

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

The Museum Library

Tues. - Fri.	11:00 a.m. - 4:00 p.m.

Museum Dining

Diner Saurus Fast Service Eatery

Daily	Temporarily closed

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.

Natural Science Center

There are many wild places in the New York area, and the Center features these habitats' 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.

The Museum Shop

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

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.

Central Reservations Coupo

Rotunda
AM. MUS. NAT. HIST. LIBRARY
Received on: 10-22-98

Program Name/Date # Members

_____

_____

_____

Total $

Mr./Mrs./Miss/Ms.

Address

City State Zip

Telephone (Day) (Evening)

Membership No.

❑ Check ❑ Am.Ex. ❑ Visa ❑ Master Card

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 above 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.

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 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.

American Museum of Natural History

Membership Department,
Central Park West at 79th Street
New York, New York 10024-5192

Don't miss the 1998 Margaret Mead Film & Video Festival, November 6-14

rotunda

Vol. 23, No. 10 November 1998

primates: the jean baulu collection of antique prints

maya sacred rituals

butterflies exhibition

members' tours

olio
470.U52
5
23
o. 10
ovember
998

American Museum of Natural History Members' Newsletter

africaquest: an online expedition

What do you get when you combine eight mountain-biking explorers, several American Museum of Natural History scientists, thousands of schoolchildren, a remote satellite transmitter, and the mysteries of Africa's Rift Valley? You get AfricaQuest, an interactive learning adventure cosponsored by the American Museum of Natural History and Classroom Connect, a leading Internet education company. AfricaQuest, which launched on October 5 and will run for six weeks, takes a team of scientists and explorers on a grueling 1,000 mile journey through Kenya and Tanzania to explore the link between human evolution and the conservation issues that face us as we approach the 21st-century. Employing the Internet's interactive capabilities, AfricaQuest brings together the expertise of explorers in the field, scientists online, and the intuitive power of children to explore important scientific mysteries.

AfricaQuest is the invention of Dan Buettner, who holds a Guinness World Record for cycling 12,000 miles across Africa in 1993. After returning from his arduous trip, Buettner began to conceive of an excursion that would engage the interactive nature of the Internet while allowing kids to direct a voyage of scientific discovery. The result was MayaQuest, an interactive expedition to the rainforests of Central America to explore the civilization of the ancient Maya. From 1995 to 1998, MayaQuest provided children with a vehicle for examining a fascinating part of the world and exchanging ideas with renowned archaeologists. Last spring, schools from twenty-two countries logged-on to the MayaQuest site over ten million times.

With AfricaQuest, the American Museum of Natural History is joining forces with Classroom Connect to tackle perhaps the greatest of all mysteries, that of our origins as a species and our place in nature. The project will look at survival and extinction in both the distant past and the modern present. Why, for example, did some early hominid species simply die off over two million years ago, while others survived and went on to evolve into modern humans? Similarly, will all of Africa's endangered large animals adapt to the changes they currently face? In what way is our own survival and evolution linked to the preservation of global biodiversity? On AfricaQuest, the kids are the real explorers, and the team on the ground is their tool for exploration—perhaps the next great paleoanthropological discovery in Africa will be made by a 10-year-old from the Bronx.

Dan Buettner

Young girl in Zaire

Dan Buettner

Doctor Chip Thomas speaking with children in an African village.

Over the past several months, American Museum of Natural History scientists and educators have been working closely with the AfricaQuest team to formulate specific queries for the online students to tackle. As the team arrives at the famous fossil site of Koobi Fora, Ian Tattersall, curator in the Museum's Department of Anthropology, will be challenging

frican man fishing on the southern shore of Lake Malawi at dawn.

tudents from subscribing classrooms o offer their best theories for the eginnings of bipedalism, perhaps the riginal hominid adaptation. While

rotunda

ISSN 0194-6110

Vol. 23, No. 10, November 1998

Cleo Cacoulidis, Editor
Michel DeMatteis, Copy Editor
Peggy Conversano, Designer
Rosemary Caulk, Director of Membership

Rotunda is published monthly, except for a combined issue in July/August, by the Membership Office of the American Museum of Natural History, Central Park West @ 79th Street, New York, N.Y. 10024-5192. Telephone: (212) 769-5606. Museum membership of $45 per year and up includes a subscription to *Rotunda*. © 1998 American Museum of Natural History. Periodical postage paid at New York, N.Y., and at additional mailing offices. Postmaster: Please send address changes to *Rotunda*, Membership Office, AMNH, at the above address. Printed in the USA.

exploring the economies and adaptations of the pastoral nomads of northern Kenya, John Van Couvering, editor-in-chief of *Micropaleontology Press*, will introduce kids to our ancestors' earliest technologies, asking them to consider how specific tools might have been used. Further along in the expedition, Eric Delson, a research associate in the Museum's Department of Vertebrate Paleontology and professor of Anthropology at Lehman College and the Graduate School of the City University of New York, will enlist the help of students to estimate the size and weight of Australopithecines. Weekly "mystery photos," selected from the Museum's collections, will challenge the online audience's interpretive abilities.

The partnership between the American Museum of Natural History and Classroom Connect is another example of the Museum's efforts to broaden its outreach to schools across the country using the Internet. This year, the Museum's scientific expeditions to the Gobi Desert in Mongolia and the hydrothermal vents off the coast of Washington State have been featured on the Museum's website, and in collaboration with Discovery Channel On-Line, we are bringing our field research in Bolivia, Madagascar, and Australia to the public. The Museum plans on continuing its partnership with Classroom Connect with GalapagosQuest, an interactive journey to explore Darwin's expeditions and the origins of the species.

AfricaQuest is active through November 13. To find out more about AfricaQuest or other Museum online expeditions, explore the Museum's website at http://www.amnh.org.

Cover photo: The aye-aye, chromolithograph, about 1800, the Jean Baulu Collection of Antique Prints. Photo credit: Brian Merrett, MBAM

events & exhibitions

Sacred Arts and Rituals

In conjunction with the exhibition *Sacred Arts of Haitian Vodou*, the Museum will present a series of free weekend events that focus on the arts and rituals of diverse cultures. Unless otherwise noted, all programs will be held in the Leonhardt People Center. For further information, please call (212) 769-5315.

courtesy of Karen Kramer

courtesy of Karen Kramer

Picking leaves for healing in rural Haiti (above); Healing with leaves in rural Haiti (below).

Saturday and Sunday, November 21 & 22

Darkness into Light: Semana Santa, San Miguel (Video, 1997)
1:00–2:00 p.m.

Producers Patricia Lacy Collins and Robert Cozens dramatically portray the complex events and stunning pageantry of Easter week in San Miguel de Allende, a colonial town in the hills of Guanajuato, Mexico. The film examines the relationship between religion and culture while depicting the numerous processions that mark the observance of the holy days.

Maya Sacred Rituals
2:00 & 3:30 p.m.

Ana Gonzales Urizar, a descendant of the K'iche Maya, will present a slide- and video-illustrated lecture on contemporary rituals (*hacer costumbre*) in Guatemala.

Ritual Music of the Andes
2:30 & 4:30 p.m.

The ensemble Inkhay will perform indigenous music from Bolivia, Peru, and Ecuador using traditional instruments. The group will also perform music used in Andean rituals, including harvest and fertility rites and shaman ceremonies.

Saturday, December 5

From Vodou Adjae to Revolution: The Music of Boukman Eksperyans
2:00 & 4:00 p.m.

The Haitian band Boukman Eksperyans has paved the way for Haitian "roots" music, a dynamic form combining vodou and rara rhythms with synthesizers, electric bass, and guitars. Boukman Eksperyans draws on the history and culture of Haiti to produce music with a social and political slant. The concerts will be held in the Kaufmann Theater.

Sunday, December 13

Breaking Leaves: The Healing Arts of Haitian Vodou
2:00–4:00 p.m.

A panel discussion on the various forms of traditional healing associated with Haitian Vodou, including herbalism, psychiatry, and spiritual counseling. Panelists will also examine the concept of religious ritual as healing art, Haitian ethnobotany, and the historical antecedents of vodou healing in African cultures. The lecture will take place in the Linder Theater.

Long-nosed guenon, Diana monkey, capuchin, yellow baboon, moor macaque, coalta, black-penciled marmoset, and bonnet monkey; watercolored lithograph, about 1850, by Hippolyte Louis Emile Pauquet

Christine Guest, MBAM

ibrary Gallery

rimates: The Jean Baulu Collection f Antique Prints

Until photography became a well-stablished technique for depicting nimals and their habitats, it was rtists who sketched the animals iscovered and studied by European xplorers and naturalists. These lustrations often took the form of rints, from early woodcuts based on ubious reports to elegantly detailed 9th-century lithographs, many resented in books that had wide ublic appeal.

rimatologist Jean Baulu, co-founder f the Barbados Primate Research Centre and Wildlife Reserve, has been collecting antique prints portraying different species of primates, from lemurs to monkeys and apes, for several years. As of today, he has amassed nearly 1,400 prints spanning four centuries of scientific illustration. The engravings not only represent the art of printmaking but also serve as a repository of information on primates and their diversity. Amazingly, none of the primates depicted in the collection belongs to an extinct species.

Wishing to share his treasure with the public, Baulu has selected the most beautiful pieces from his collection for the Museum's exhibition, *Primates: The Jean Baulu Collection of Antique Prints*. The fifty-one prints to be shown display a marvelous blending of themes from literature and from political, natural, and art history. "Primatology touches so many disciplines: medicine, psychology, zoology, anthropology, ecology, and other domains. We can find primates in all kinds of disciplines," notes Baulu.

Primates will offer visitors a wonderful opportunity to view some of these striking images and the chance to learn something about our ever-changing view of these animals and, ultimately, the fragile world we share.

Primates: The Jean Baulu Collection of Antique Prints will open on December 21 in the Library Gallery.

members' programs

Expeditions

Mashantucket Pequot Museum

Sunday, December 6, 8:00 a.m.–6:00 p.m.

Join Sidney Horenstein, coordinator of the Museum's Environmental Programs, on a trip to the new Mashantucket Pequot Museum and Research Center, located seven miles from Mystic, Connecticut. This state-of-the-art complex, which is owned and operated by the Mashantucket Pequot Tribal Nation, serves as a major resource on the history of the Pequot Nation, the histories and cultures of other Native American groups, and the natural history of the region.

After an introductory tour with the museum's director of marketing and development, participants will have a chance to explore in-depth a multitude of exhibits. Multisensory dioramas, exhibitions of eastern woodland and Mashantucket Pequot life, interactive programs, ethnographic and archaeological collections, and commissioned works of art by Native artists are but a few of the things the museum offers. Highlights include reconstructions of a glacial crevasse and of a caribou hunt from 11,000 years ago, plus a walk-through, 16th-century Pequot village, a 17th-century Pequot fort, an 18th-century farmstead, and a 70mm film about the Pequot War.

The tour includes round-trip transportation (via charter bus from the Museum), lectures, and admission charges. Lunch is available at the museum's restaurant, which offers Native American cuisine. Program code: MM4-12. Fee: $60; $70 non-members.

Hall Tours

Natural History of the Holidays

Friday, December 11, 6:30 p.m.

It is always interesting to trace the roots of our holiday season. Doing so leads us back nearly 4,000 years, revealing the traditions of early Christians and Jews, as well as ancient Babylonians, Greeks, and Romans. Many of the season's symbols and customs are grounded in the natural world. Join Robert Campanile in a search around the globe and through the millennia for the meaning of our present-day celebrations.

Program code: MM1-12. Members only.

Denis Finnin

Caribou kill diorama, 11,000-year-old hunting scene; Mashantucket Pequot Museum and Research Center

A Dickens of a Scrooge

Friday, December 18, 6:30 p.m.

In a reading of Charles Dickens's joyful story "A Christmas Carol," Robert Campanile will bring the author's famous characters to life. Scrooge, Tiny Tim, and the Ghost of Christmas Past will remind us of the true meaning of the holiday season, and of why we need one another. Program code: MM2-12 Members only.

Lectures

Behind-the-Scenes in the Entomology Department

Tuesday, November 10 & Thursday, November 12 6:00 p.m. & 7:30 p.m.

With over 17 million specimens, the Museum's insect collection is one of the largest in the world. Join David Grimaldi, chairman of the Department of Entomology and author of *Amber: Window to the Past*, and James Miller, curator of the upcoming exhibition *Butterflies*, and examine this extraordinary collection.

Each tour is limited to 25 participants. Program code: MM1-11. Fee: $30; members only.

How to Take Your Grandmother to the Museum

Sunday, November 22, 2:00 p.m.

Learn how best-selling author Lois Wyse and her ten-year-old granddaughter, Molly Rose Goldman, co-wrote the delightful children's book, *How to Take Your Grandmother to the Museum.*

Kaufmann Theater. Program code: MM2-11. Fee: $10 members, adult and one child. Each additional child is $3; $10 adults $5 children, non-members.

Origami Workshops

Saturday, December 12, 10:30 a.m.; 11:30 a.m.; 2:30 p.m.; 3:30 p.m.

Origami is the centuries' old Japanese art of folding squares of paper to construct shapes without the use of scissors or glue. Join the instructors from Origami USA and learn the techniques of this craft. At the end of each workshop, participants will receive origami paper and diagrams so that they can continue to explore the art form. Every year, Origami USA instructors create the figures for the Museum's Origami Holiday Tree.

Beginner Workshop
Participants will learn how to fold a butterfly. Afterwards, instructors will demonstrate either a candy cane or a star basket fold.

Intermediate Workshop
In this class, students will learn how to fold "Laura's swan" and, time permitting, another intermediate-level figure. (Anyone who can fold the "flapping bird" qualifies for this workshop.)

There will be two beginner workshops and one intermediate workshop at each of the times listed. Program codes for the classes are as follows: MM-10:30-B & MM-10:30-I; MM-11:30-B & MM-11:30-I; MM-2:30-B & MM-2:30-I; MM-3:30-B & MM-3:30-I.

Make Your Own Gingerbread House

Saturday, December 19, 10:00 a.m.–12:00 p.m. & 1:00–3:00 p.m.
Sunday, December 20, 10:00 a.m.–12:00 p.m. & 1:00–3:00 p.m.

Come build a house of sweets for the holidays and create memories for years to come. Roofs, chimneys, and doorways will spring to life as children mindfully place each gumdrop, starlight, and candy cane. Young contractors' eyes will sparkle and their mouths water as they sample the building materials to guarantee suitability. Although your house will be of your own design, consultant June Myles will be on hand to help you create your no-bake gingerbread fantasy. The building of gingerbread houses at the Museum is now an annual tradition. Members often return to erect new—and improved—versions each year.

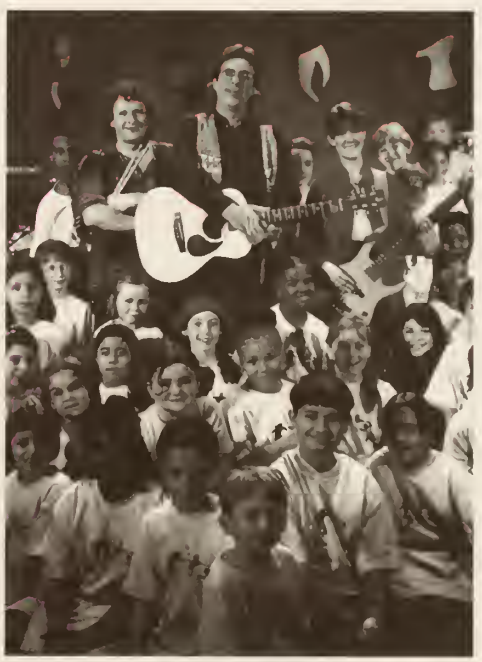
For children ages 5-10. Fee: $38 for one child and accompanying adult. Members only. Program codes: December 19: morning, MM7-12 & afternoon, MM8-12; December 20: morning, MM9-12 & afternoon, MM10-12.

Members' Family Holiday Party

Saturday, December 19, 2:00–5:00 p.m.

You're invited! Bring the family for a holiday adventure 'under the sea' in the Museum's famous Hall of Ocean Life. We promise a wonderful holiday celebration with music, dance, crafts, performances, and other special surprises. This event is free.

Children of all ages can sing and party to their heart's delight to the music of David Grover and the Big Bear Band, the PBS award-winning family/folk trio. Kids can dance along to "Surfing with Dinosaurs," one of the trio's recent releases, or join in singing the group's much-loved songs celebrating Chanukah and Christmas. Engage in an Origami USA workshop, and learn how to make festive holiday decorations while enjoying "A Dickens of a Scrooge," a reading by Robert Campanile. Program code: MM3-12. Open to Family and Higher Level members only. (You must register through central reservations in order to attend.)



John Seakwood

David Grover and the Big Bear Band

november

Current Exhibits

Spirits in Steel: The Art of the Kalabari Masquerade
Gallery 77 through January 31
Sacred Arts of Haitian Vodou
Gallery 3 through January 3
Papua New Guinea: Art and Spirits Photographs from the Middle Sepik River, 1953-54
Akeley Gallery through March 28

Sunday 1
Children's Workshop: Taking Good Photographs
Children learn how to compose photos
10:30 a.m.–12:30 p.m.; Program code: ED98423C (Class is repeated on 11/8)

Monday 2

Tuesday 3

Wednesday 4
Amateur Astronomers Association
Lecture by Robert Finks, "Terrestrial Examples of Planetary Geology"
Linder Theater; 6:15 p.m.

Thursday 5
The Future of Science
Lecture on science in the 21st century
7:00–8:30 p.m.; Program code: ED98236L

Friday 6
Margaret Mead Film & Video Festival
From November 6th through 14th

Saturday 7
Butterflies Exhibition Opens

Sunday 8
Children's Workshop—Kaboom: Volcanoes and Black Smokers
Children learn about earthquakes
10:30 a.m.–1:30 p.m.; Program code: ED98425C

Monday 9

Tuesday 10
Behind-the-Scenes in Entomology
Members' tour;
6:00 & 7:30 p.m.; Program code: MM1-

Wednesday 11

Thursday 12
Behind-the-Scenes in Entomology
Members' tour;
6:00 & 7:30 p.m.; Program code: MM1-11

Friday 13
Superstitious Nature
Hall tour with Robert Campanile
6:30 p.m.; Program code: MM4-11

Saturday 14
Spirits in Celluloid: Haiti, Hollywood and the Mass Media
Panel on Haiti and the mass media
Kaufmann Theater; 2:00–4:30 p.m.

Sunday 15
New York Turtle & Tortoise Society
Linder Theater; 10:30 a.m.

New York Paleontological Society
Room 319; 2:00 p.m.

Monday 16

Tuesday 17
New York Entomological Society
Edith C. Blum Classroom; 7:00 p.m.

Wednesday 18

Thursday **19**

Friday **20** **Bread and Brew**
Hall tour with Robert Campanile
6:30 p.m.; Program code: MM3-11

Saturday **21**

Sunday **22** **How to Take Your Grandmother to the Museum**
Lecture by author Lois Wyse
Kaufmann Theater; 2:00 p.m.
Program code: MM2-11

Monday **23** **Biodiversity and Energy**
Lecture on energy sources and costs
Kaufmann Theater; 7:00–8:30 p.m.
Program code: ED98330L

Tuesday **24** **Linnaean Society of New York**
Linder Theater; 7:30 p.m.

Wednesday **25**

Thursday **26** **Thanksgiving Holiday**

Friday **27**

Saturday **28** **Discovery Room**
Museum Magic theme: Lure of the Deep; 2:00 p.m. Free for children five and above; located in the Leonhardt People Center

Sunday **29** **Discovery Room**
Museum Magic theme: Lure of the Deep; 2:00 p.m. Free for children five and above; located in the Leonhardt People Center

Monday **30**

Phone Numbers at Your Fingertips

Museum Information	(212) 769-5100
Membership Office	(212) 769-5606
Planetarium Information	(212) 769-5900
Member Birthday Parties	(212) 769-5154
Education Department	(212) 769-5310
Planned Giving Office	(212) 769-5119
Discovery Tours	(212) 769-5700
*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
Website	http://www.amnh.org

Upcoming Exhibits

Butterflies
Opens November 7
Margaret Mead Film & Video Festival
From November 6 through 14
Primates: The Jean Baulu Collection of Antique Prints
Opens December 21

For program reservations, please call (212) 769-5200

Kay Lenskjold, Bartram Oak, 1919

program listings

Department of Education

Lectures

Whole Earth Geology

In this engaging, four-part lecture series, Sidney Horenstein, coordinator of the Museum's Environmental Programs, will discuss the concepts of earth science. Topics will include how mountains and valleys are formed, and why the earth's surface continually changes. The fee for the series is $35; $31.50 members. Individual lectures are $12; $10 members. Program code: ED98231L. Lectures will run from 7:00 to 8:30 p.m.

Cyclical Processes on the Earth
Monday, November 16

Classes of Rocks: Igneous, Metamorphic and Sedimentary
Monday, November 23

Evolving Landscapes
Monday, November 30

Plate Tectonics
Monday, December 7

The Gullah People

Wednesday, December 9, 7:00–8:30 p.m.

Abiola Sinclair, publisher and editor of *Black History Magazine*, will present a slide-illustrated lecture on the Gullah people of the Sea Islands, which are located off the South Carolina, Georgia, and northern Florida coasts. Famous for their basket weaving and folklore, the Gullah people have preserved their African and Native American traditions for centuries. However, within the last few years, commercialization and misrepresentation have begun to threaten their existence. Sinclair will discuss the Gullah community's attempts to address these issues.

Nad'ne Slowik

Rock formation, John Boyd Thacher State park, Voorheesville, New York

Field Trips

Exploring Spuyten Duyvil

Saturday, November 21

Join Sidney Horenstein, coordinator of the Museum's Environmental Programs, on a field trip to the southern Bronx to investigate rock formations that are more than one billion years old, a hidden pond, and the site of a former village where ironworkers once lived. The fee is $12; $10 members. There will be two expeditions: 10:00 a.m.–12:00 p.m., program code: ED98343X; and 12:00 p.m.–2:00 p.m., program code: ED98344X.

Whole Earth Geology Expeditions

Discover the geological history of Central Park on the following two walking tours with Sidney Horenstein. The fee for both trips is $18; $16 members. A single tour is $12; $10 members.

Glaciers Transform Land
Saturday, December 5,
10:00 a.m.–12:00 p.m.
Program code: ED98339X

12:00 p.m.–2:00 p.m.
Program code: ED98340X

Ancient Mountain Roots
Saturday, December 12,
10:00 a.m.–12:00 p.m.
Program code: ED98341X

12:00 p.m.–2:00 p.m.
Program code: ED98342X

omet West; Astronomical Society of the Pacific

Multicultural Programs

Spirits in Celluloid: Haiti, Hollywood, and the Mass Media

Saturday, November 14, 2:00–4:30 p.m.

Scholars and professionals from film, television, radio, and newspapers will discuss the depiction of Haiti and Haitian culture in the mass media, particularly in Hollywood movies. Location: Kaufmann Theater. Free.

Voices of Indigenous Peoples

Tuesday, November 17, 7:00–9:00 p.m.

Marcos Terena, a leader of the Terna Amazon Indians, together with other leaders of tribal peoples, will speak about accelerating development and its impact on the environment. The program includes a screening of the documentary film *Yakoana: The Voices of Indigenous Peoples*, which portrays the gathering of a thousand tribal elders at the historic Earth Summit conference in Brazil.

Hayden Planetarium Lectures

Texture of the Universe

Monday, November 30, 7:30 p.m.

Edward Shaya, Goddard Space Flight Center, will present a talk on the structures and flow patterns of the universe, including clusters of galaxies and gravity. Location: Kaufmann Theater. Program code: HP102L. Fee: $8; $7 members.

Fire in the Sky: Comets and Meteors in Art

Monday, December 7, 7:30 p.m.

Artist Roberta Olsen will discuss representations of meteors and comets in a number of art forms. Location: Main Auditorium. Program code: HP112L. Fee: $8; $7 members.

Artist Roberta Olsen

Hayden Planetarium Courses

Town and Country Star Gazing

Tuesday, November 10, 6:30–8:10 p.m.

This course will teach you how to identify the brightest stars and galaxies among the constellations. Binoculars, cameras, and telescopes will be available. The class will run for three sessions, through December 1. Program code: HP6. Fee: $35.

program listings

Children's Workshops

Animal Puppets

Sunday, November 15, 10:30 a.m.–12:00 p.m.

Children will draw subjects from the Museum's dioramas and learn about animals through pantomime. Afterwards, the kids will create stick puppets using a variety of materials. Judith Levy, former teacher at the Carnegie Museum of Art, and Patrizia Tombesi, dancer, will present the workshop. Age 5 (children must be accompanied by an adult). Program code: ED98426C. Fee: $20.

Drawing T-Rex

Sunday, November 15, 10:30 a.m.–1:30 p.m.

Children will learn the basics of drawing with pen and ink, watercolor techniques, and contour sketching as they observe animal anatomy in the Dinosaur and Early Fossil Mammal Halls. Angela Tripi-Weiss, art director at Public School 87, will conduct the workshop. Age 8. Program code: ED98427C. Fee: $25.

Children should bring a bag lunch for three-hour programs.

AMNH

Yikes! Your Body Up Close

Sunday, November 22, 10:30 a.m.–1:30 p.m.

Dina Schlesinger, computer science instructor at Public School 140, will engage children in experiments on vision and hearing. Afterwards, children will make their own drums and kaleidoscopes. Ages 7 & 8. Program code: ED98428C. Fee: $25.

Evi-dents

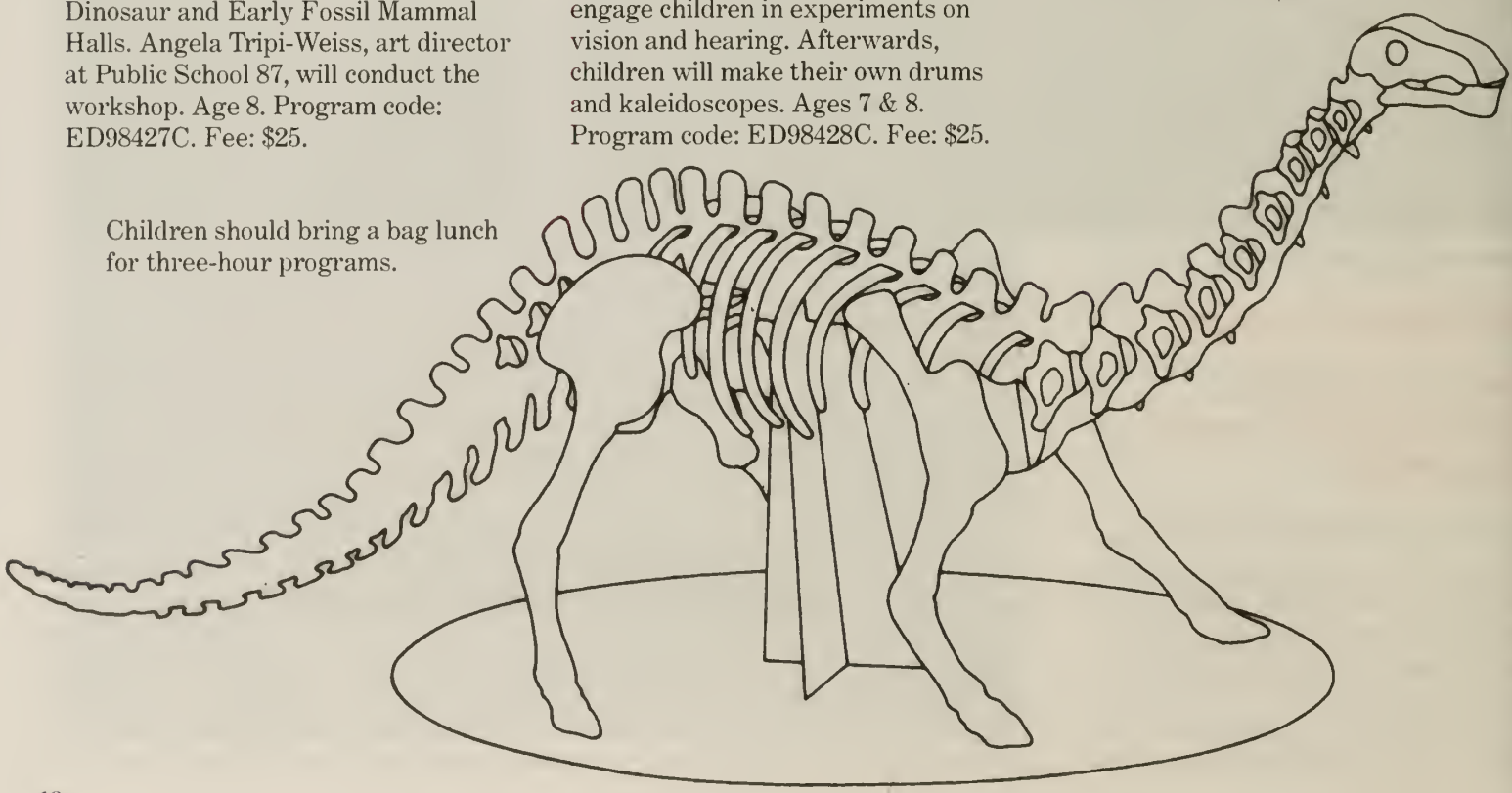
Sunday, November 22, 10:30 a.m.–1:30 p.m.

During a walking tour of the Museum, children will learn how dinosaurs and other animals used their teeth for survival. Later on, they will brush and floss models of human teeth and make impressions of animal teeth to take home. Iris Vardy-Strauss, a practicing orthodontist in New York City, will present the program. Ages 9 & 10. Program code: ED98429C. Fee: $25.

Origami: Folded Paper Treasures

Sunday, November 22, 10:30 a.m.–1:30 p.m.

Children will discover how to create origami shapes using elementary paper-folding techniques. Gay Merrill Gross, storyteller and instructor for the group Origami USA, will teach the class. Ages 9 & 10. Program code: ED98430C. Fee: $25.



Kids' Stuff

A Fun Page for the Naturally Curious from Workman Publishing

MUSEUM FACTS

In How to Take Your Grandmother to the Museum, Molly takes Grandma to visit her favorite exhibits at the Museum. If you were to take your grandmother to the Museum, where might you find the following objects? Don't forget to tell your grandma to wear comfortable shoes!

1. *Anatotitan*	**a.** Hall of Africa
2. Ostrich Diorama	**b.** Hall of Ocean Life
3. Woolly Mammoth	**c.** Dinosaur Hall
4. *Carcharodon Megalodon*	**d.** Hall of Minerals and Gems
5. Rhodochrosite	**e.** Advanced Fossil Mammals
6. Alaskan Brown Bears Diorama	**f.** Hall of Meteorites
7. Cape York Meteorite	**g.** Hall of North American Mammals

Answers: 1. c; 2. a; 3. e; 4. b; 5. d; 6. g; 7. f

Book and Author Spotlight

We're proud to introduce a new young writer, Molly Rose Goldman, age 10.

Along with her grandmother, best-selling author Lois Wyse, Molly just co-authored a new children's book, How to Take Your Grandmother to the Museum.

Here, Molly, who lives near the Museum and attends a Manhattan public school, talks about her new book.

Q: Whose idea was it for you to write a book with your grandmother?

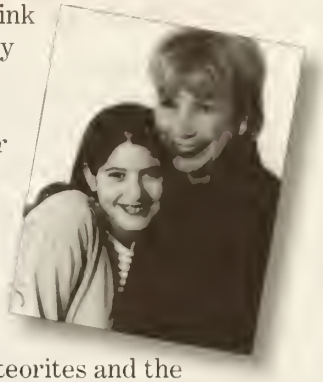
A: My grandmother came up with the idea. I loved it from the beginning.

Q: How often do you go to the Museum and how many times did you go to research the book?

A: I usually go a few times a year, but I went three times to research the book.

Q: Is the book a true story? Had your grandmother really never been to the Museum before?

A: Well, of course my grandma had already been there! I don't think there's a place my grandma hasn't been.



Q: What are your favorite exhibits in the Museum?

A: I love to look at all the different colored rocks in the Hall of Meteorites and the Hall of Gems and Minerals, especially the glow-in-the-dark ones.

Q: In the book, the girl has a rock collection. Do you have a rock collection?

A: I've been collecting rocks for a *long* time. When I was little I used to bring rocks home from the playground and tell my mom I had found diamonds. My favorite mineral is tiger's-eye.

Q: How does it feel to be a published author?

A: It feels great, but sometimes it's a big responsibility because everyone expects you to do a really good job on writing assignments.

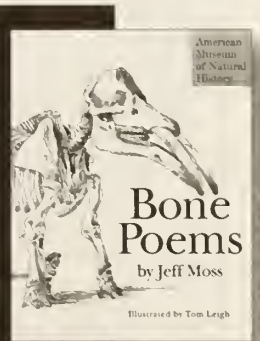
Q: What was the best part about writing the book?

A: Definitely getting to know my grandmother even better.

The Evolution of the Woolly Mammoth

In a snowstorm, a mammoth *un*-woolly
Worried, "Now I'll catch cold proba-bully!"
But in time this big worrier
Became a bit furrier
And eventually grew woolly fully.

From Bone Poems *by Jeff Moss*



How to Take Your Grandmother to the Museum and Bone Poems are available at the Museum bookstore and shops as well as at bookstores throughout the country.

Kids' Stuff copyright © 1998 Workman Publishing Co., Inc.

museum notes

Creative Planned Giving for the Museum's Future

"It seems like I've always been involved with the Museum," says Bill Yankauer, who, at 93, is the Natural History Society's most senior member. Mr. Yankauer recently made a wonderful gift to the American Museum of Natural History—his home.

Mr. Yankauer has lived at his Sutton Place South co-op for over forty years and recently began to think about his estate plans for his nieces and nephews, who live in California. He wanted to pass on to them only things that they would want, and to remove items, like his co-op, that they would not use and that would unnecessarily raise the taxes on their inheritance. His love of the Museum and fond, life-long memories of visiting the Hall of North American Mammals led him to call the Museum's Office of Planned Giving to inquire about leaving his apartment to the Museum.

Mr. Yankauer is a groundbreaker at the Museum, having created the first retained life estate gift. He deeded his home to the Museum, but retained the right to live there for the rest of his life. Subsequently, the co-op will be sold and the proceeds will be contributed to the Museum's endowment, providing support for the full range of the Museum's scientific and educational programs. In the meantime, Mr. Yankauer received the benefit of a tax deduction, while also relieving his heirs of taxes and the responsibility of selling his co-op. As Mr. Yankauer says, "Everybody wins."

At 27, Craig Tunks holds the distinguished honor of being the Natural History Society's most junior member. The son of two school teachers, he spent many hours visiting the Museum as a young student. "My favorite elementary-school field trip," he says. Mr. Tunks, now a computer network specialist who works in schools in the area, wanted to make a special gift to the Museum to help it touch the hearts of more schoolchildren, but he wasn't quite sure how to go about it.. He checked a box on his membership renewal form for more information, and was sent materials.

One of the items that caught his eye was about life insurance, and he called his insurance broker to explore the possibility. He was pleased to learn that at a healthy 27 years of age, premiums on a sizable policy are quite low. Shortly afterwards, Mr. Tunks joined the Natural History Society with the very generous gift to the Museum of his new life insurance policy. "I'm thrilled to have found a way to include the Museum in my future while helping to take care of *its* future," said Mr. Tunks, whose gift will support the Museum's endowment for children's educational programs.

There are many creative ways to support the American Museum of Natural History, as the oldest and youngest members of the Museum's Natural History Society have shown. The Natural History Society is a special group of individuals of a variety of ages and from many walks of life who have included the Museum in their estate plans. For information about the Natural History Society or planned giving opportunities, please call the Office of Planned Giving at (212) 769-5119.

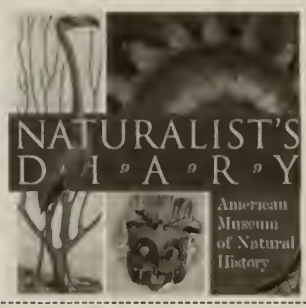
Give a Gift for All Seasons

A Membership in the American Museum of Natural History

Why not send a unique gift that lasts throughout the year?

Your friends and relatives can enjoy all the privileges of membership, including complimentary Museum admission, a year's subscription to *Natural History* magazine and *Rotunda* (our members' newsletter), invitations to members' previews, and much more.

Choose either the Individual $45, Dual $60, or Family $75 category, and we'll do the rest. As a special holiday bonus, we'll send AMNH's beautiful 1999 engagement calendar, Naturalist's Diary (a $13.95 value, pictured right), along with a personalized holiday card to announce your thoughtful gift.



Please send a one-year membership at the category indicated to the person(s) listed below:

[ ] Individual [ ] Dual [ ] Family

Recipient's Name

Street Address

City State Zip

[ ] Individual [ ] Dual [ ] Family

Recipient's Name

Street Address

City State Zip

Enclosed is my check for $_____ Please charge to my ____Visa ____ MC ____ Amex

Card no. _____ Expiration date _____

Signature_____

Your Name

Street Address Telephone

City State Zip

I understand that this special offer, which expires December 31, 1998, is not valid for renewing my own membership.

Please mail this form, with your payment, to: AMNH, Membership Department, Central Park West @ 79th Street, New York, N.Y. 10024-5192

INTRODUCE YOUR FAMILY TO A WORLD OF NATURAL HISTORY WITH DISCOVERY TOURS

GALÁPAGOS FAMILY ADVENTURE: ABOARD THE M.V. SANTA CRUZ
June 26 – July 6, 1999
Estimated at $3,660 to $4,480

ALASKA FAMILY ADVENTURE ABOARD THE WILDERNESS ADVENTURER
July 2 – 11, 1999
$1,995 – $4,425

FAMILY MEDITERRANEAN VOYAGE ABOARD THE *CLELIA II*
July 3 – 13, 1999
$1,995 – $8,995

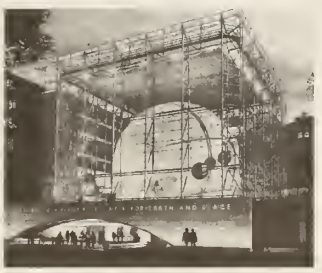
RENAISSANCE TUSCANY: A FAMILY TOUR
July 23 – August 3, 1999
Estimated at $4,180

A SUMMER FAMILY SAFARI TO KENYA AND TANZANIA
August 14 – 28, 1999
Price TBA

For a complete listing of all Discovery Tours please call:
800-462-8687 or (212)769-5700
American Museum of Natural History/Discovery Tours
Central Park West at 79th Street, New York, NY 10024

PROVIDE FOR YOUR RETIREMENT

AND HELP THE AMERICAN MUSEUM OF NATURAL HISTORY . . . MOVE FORWARD IN THE NEW MILLENNIUM



The new Frederick Phineas and Sandra Priest Rose Center for Earth and Space, scheduled to open on December 31, 1999

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 _____

City _____ State _____ Zip _____

Phone: (Home): _____ (Office): _____

Your reply is confidential and implies no obligation.

Members' Birthday Parties

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. For more information, please call (212) 769-5154.

The Museum Shops

As a special addition to the upcoming exhibition *Butterflies*, the Museum will feature a Butterfly Shop just off the Rotunda. Inside, visitors will find an array of wonderful products decorated with butterfly imagery, as well as mounted butterfly specimens from around the world.

For the kitchen, the Butterfly Shop has created an exclusive line of tea towels, pot holders, oven mitts, place mats, and napkins. Prices for these items range from $4 to $6. Other items include a silk scarf for $58; gift wrap embellished with images of beautiful Chinese butterflies and matching enclosure cards, from $3.95 to $1.50; and a box set of note cards featuring the illustrations of 17th-century naturalist Maria Sybilla Merian, for $14. Additionally, the shop will carry glassware, jewelry, mugs, magnets, and soaps adorned with butterfly designs.

Craig Chesek

Drawing by Maria Sybilla Merian (German, 1647–1717)

Museum Hours

Exhibition Halls

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

The Museum Library

Tues. - Fri.	11:00 a.m. - 4:00 p.m.

Museum Dining

Diner 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.

Natural Science Center

There are many wild places in the New York area, and the Center features these habitats' 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.

The Museum Shop

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

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.

Central Reservations Coupc

Program Name/Date # Members

_____

_____

_____

Total $

Mr./Mrs./Miss/Ms.

Address

City State Zip

Telephone (Day) (Evening)

Membership No.

❑ Check ❑ Am.Ex. ❑ Visa ❑ Master Card

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 above 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.

Rotunda
AM. MUS. NAT. HIST. LIBRARY
Received on: 11-19-98

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 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.

American Museum of Natural History

Membership Department,
Central Park West at 79th Street
New York, New York 10024-5192

Don't miss the Jean Baulu Collection of Antique Prints, opening December 21

170
.N52N5
v. 23
no. 11
December
1998

rotunda

Vol. 23, No. 11 December 1998

fresh frozen squid

the rose center for earth and space

africa's elephant kingdom

members' workshops

American Museum of Natural History Members' Newsletter

fresh frozen squid

By Zosia Zaks

What would you do if a giant squid got caught in your fishing net? Stick it in your freezer? That's exactly what happened to the crew of a trawler off the coast of New Zealand last December when a dead but intact 25-foot squid became trapped in its nets. The fishermen put the specimen in the ship's freezer and then turned it over to scientists when they reached shore a few months later.

On June 10, 1998, scientists at the American Museum of Natural History received the squid as a gift from the National Institute of Water and Atmospheric Research in Wellington, New Zealand. After a long flight across the Pacific Ocean, the squid passed through customs at Kennedy International Airport stamped "seafood." Soon after its arrival, Museum scientists carefully thawed the animal and then injected it with a preservative. Neil Landman, chairman of the Museum's Department of Invertebrates and head of the Museum's squid research team, was thoroughly delighted to receive such a high-quality specimen, noting that "this is a rare opportunity to study the largest invertebrate living on our planet today."

There are many varieties of smaller squids, including the type used for the culinary specialty called calimari. However, no squid is as large or mysterious as the giant squid, known scientifically as Architeuthis. The giant squid has eight arms and is equipped with two tentacles that can grow as long as a New York City subway car. Both arms and tentacles are covered with round suckers. The squid's eyes are the biggest in the animal kingdom, sometimes growing as large as soccer balls. Scientists know the giant squid is carnivorous, and that it probably uses its strong, sharp beak to chop and eat fish and other squids. In turn, the giant squid is eaten by sperm whales.

Portia Rollings

A close-up of the giant squid's jaw, known as a buccal bulb.

Portia Rollings

View of the giant squid's tentacles

Why are giant squids such enigmas? They often get caught in nets or occasionally wash up on shore, but scientists have never seen a live one i its natural habitat. The animals live both in the Atlantic and Pacific Oceans, yet up till now they have managed to evade scientists' intense search for them. Until the 20th century, giant squids were the stuff o myths and legends. Sightings and reports of these bizarre creatures caused rumors of sea monsters and merman to spread like wildfire. Although modern science has shown that giant squids are cephalopods fro the deep ocean, much still remains to learn about them. So far, the giant squid has eluded cameras, deep-sea divers, and the best-laid plans of marine biologists.

Scientists know little about these

ıe specimen was preserved in formaldehyde in a ten-foot-long metal holding tank.

rotunda

ISSN 0194-6110

Vol. 23, No. 11, December 1998

Cleo Cacoulidis, Editor
Michel DeMatteis, Copy Editor
Peggy Conversano, Designer
Rosemary Caulk, Director of Membership

Rotunda is published monthly, except for a combined issue in July/August, by the Membership Office of the American Museum of Natural History, Central Park West @ 79th Street, New York, N.Y. 10024-5192. Telephone: (212) 769-5606. Museum membership of $45 per year and up includes a subscription to *Rotunda*. © 1998 American Museum of Natural History. Periodical postage paid at New York, N.Y., and at additional mailing offices. Postmaster: Please send address changes to *Rotunda*, Membership Office, AMNH, at the above address. Printed in the USA.

giants other than the basics. Where do they live? How do they reproduce? How long do they live? How many are there? Landman hopes that the New Zealand squid will provide some answers to these questions. "We are learning about the population dynamics of the giant squid. This specimen is a mature male. The other specimens, or parts of specimens, are female and much larger. It therefore appears that male and female squids have different sizes at maturity." At first it was assumed that the 25-foot specimen was a baby, but Landman and his research team determined it was a full-grown male when they discovered its spermatophore, or capsule of spermatozoa.

Landman says many squid fans have contacted him to discuss the latest specimen. One eight-year-old girl told him that she first learned about squids from an unusual experience: while sitting on a beach one day, she watched a seagull pluck a small squid out of the water, and as the bird was flying away with its prey, the squid released an inky substance in self-defense, showering her with goo.

Museum visitors will have a chance to see the giant New Zealand squid sometime in December or January in the Hall of Biodiversity. Although people have yet to observe a giant squid in action, visitors will be able to view up close a representative specimen of one of the most interesting and unusual animals on earth.

Cover photo: Fully extended, the giant squid measures twenty-five feet in length. Photo credit: Portia Rollings

events & exhibitions

Africa's Elephant Kingdom

Now screening at the Museum's Imax® theater, the spectacular *Africa's Elephant Kingdom* promises to take viewers on an extraordinary journey through the unique world of elephants, the earth's largest land mammals.

Filmed almost entirely in Kenya's Amboseli National Park, *Africa's Elephant Kingdom* tells the story of one elephant clan's struggle for survival as its members traverse vast stretches of land in search of dwindling sources of food and water. As the camera tracks the clan's journey, the entire spectrum of elephant life is slowly revealed, from the birth of tiny newborn calves to the saga of a magnificent old bull coming to the end of his days on the African savanna. The film's razor-sharp close-ups and breathtaking panoramas allow the audience to fully appreciate the majesty of these amazing animals.

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.

Africa's Elephant Kingdom will be shown daily through June 1999. For show times and ticket information, ca the Museum at (212) 769-5200.

Karl Ammann

The lead elephant, nicknamed Torn Ear by the Discovery Channel Pictures-Imax® film crew, is the matriarch of the clan.

lessandra Belloni performing to the rhythms of the *pizzica tarantata*.

Healing Arts and Traditions: A Cross Cultural Perspective

The Museum will present a series of free weekend events that focus on the healing arts and rituals of diverse cultures. Unless otherwise noted, all programs will be held in the Leonhardt People Center. For further information, please call (212) 769-5315.

Saturday and Sunday, December 5 & 6

Tarantismo on Film
:00 p.m.

Luisa Del Giudice, professor of Italian Folklore at UCLA, will present excerpts from four films on the phenomenon of *tarantismo*. According to folklore, women who have been bitten by a venomous spider (the tarantula) while working in the fields can be cured if they dance for several days to the music of the tambourine, violin, guitar, and harmonica in the accelerating rhythms of the pizzica tarantata. The documentary *Tarantata* (1961), by Gianfranco Mingozzi, is based on a 1959 expedition by Ernesto De Martino to study the phenomenon of *tarantismo*; *San Paolo e la Tarantola* (1991), by Edoardo Winspeare and Stefanie Kremser-Koehler, explores *Bit: Stretti Nello Spazio Senza Tempo* (1995), by Fernando Bevilacqua, documents the music of *tarantismo*; and *Pizzicata* (1996), by Edoardo Winspeare, is a feature film that tells the story of a young peasant girl who is bitten by the spider.

Healing the Spider's Bite: *Tarantismo* and Neo-*Tarantismo* in the Salento (Apulia)
2:00 p.m.

In a slide- and video-illustrated lecture, Luisa Del Giudice will talk about *tarantismo* healing rituals, which were once prevalent throughout southern Italy. Del Giudice will also discuss the current revival of this musical tradition in the Salento. ***The lecture will be presented in Italian.

The Nature of Italian Healing as Revealed in Southern Italian Fairy Tales and Folklore
3:30 p.m.

Linda Ann Loschiavo, a columnist for *L'Idea*, an Italian American magazine, will present a talk on three Italian fairy tales—Pinocchio, The Love of Three Pomegranates, and Wooden Maria—whose main characters all seek special healing. The stories originate in the

Saturday and Sunday, December 12 & 13

The Vietnamese Miracle Cure (1998)
1:00 p.m.

An insightful look at a successful drug treatment program in Vietnam, the documentary *The Vietnamese Miracle Cure* follows Tran Khuong Dan as he administers to his patients. The benefits of the medicine being used to treat their drug addiction is discussed in the film. The United Nations, Johns Hopkins Medical School, and the National Institute of Drug Abuse are all conducting studies to evaluate the safety and efficacy of the Vietnamese program.

The Art of Incense
2:00 & 3:30 p.m.

In Japan, the burning of incense is a highly refined art form and is often associated with classical Japanese poetry. Kiyoko Morita, founding member of the Boston Shino Incense Study Group and author of *The Book of Incense*, will demonstrate traditional Japanese techniques of burning incense for enjoyment and relaxation.

Soul Sound Journey
2:30 & 4:00 p.m.

Sarah Benson, co-director of the Earth Sound Light Center, will demonstrate the healing use of music using a variety of instruments, including tambouras, flutes, and Tibetan bowls.

A woodblock print by Kunisada Utagawa, depicting two daimyo (feudal lords) "listening" to incense,

members' programs

Expeditions

Mashantucket Pequot Museum

Sunday, December 6, 8:00 a.m.–6:00 p.m.

Join Sidney Horenstein, coordinator of the Museum's Environmental Programs, on a trip to the new Mashantucket Pequot Museum and Research Center, located seven miles from Mystic, Connecticut. This state-of-the-art complex, which is owned and operated by the Mashantucket Pequot Tribal Nation, serves as a major resource on the history of the Pequot Nation, the histories and cultures of other Native American groups, and the natural history of the region.

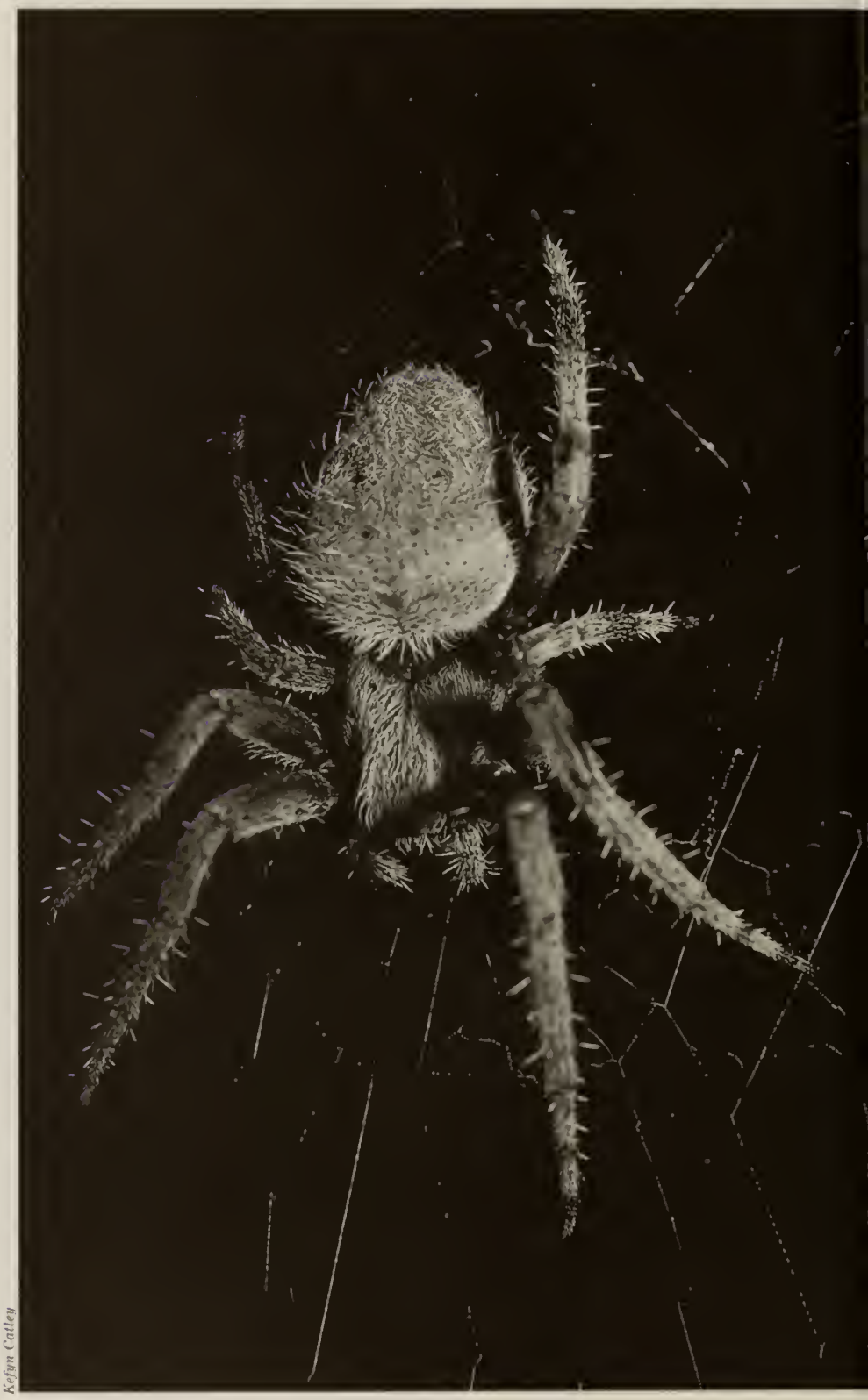
The tour includes round-trip transportation (via charter bus from the Museum), lectures, and admission charges. Lunch is available at the museum's restaurant, which offers Native American cuisine.
Program code: MM4-12. Fee: $60; $70 non-members.

Lectures

Folklore and Biology of Spiders

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

Kefyn Catley, a research arachnologist in the Museum's Department of Entomology, will present an intriguing lecture on spiders and the role they play in the medicine, art, mythology, and folklore of diverse cultures. Catley will also discuss the scientific aspects of the study of spiders, including the taxonomy, biology, and ecology of these predatory creatures. Location: Kaufmann Theater. Program code: MM5-1. Fee: $10; $8 members.



Kefyn Catley

Orb weaving spider, *Araneus, sp.*

Members' Family Holiday Party

Saturday, December 19, 2:00–5:00 p.m.

You're invited! Bring the family for a holiday adventure 'under the sea' in the Museum's famous Hall of Ocean Life. We promise a wonderful holiday celebration with music, dance, crafts, performances, and other special surprises. The event is free.

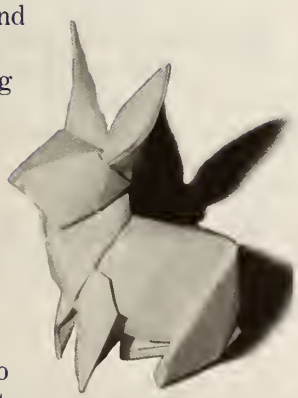
Program code: MM3-12. Open to Family and Higher Level members only. (You must register through Central reservations in order to attend.)

Workshops

Origami

Saturday, December 12, 10:30 a.m.; 1:30 a.m.; 2:30 p.m.; 3:30 p.m.

Origami is the centuries' old Japanese art of folding squares of paper to construct shapes without the use of scissors or glue. Join the instructors from OrigamiUSA and learn the terminology and techniques of this fascinating craft. At the end of each workshop, participants will receive origami paper and diagrams so that they can continue to explore the art form.



There will be two beginner workshops and one intermediate workshop at each of the times listed. Program codes for the classes are as follows: MM-10:30-B & MM-10:30-I; MM-11:30-B & MM-11:30-I; MM-2:30-B & MM-2:30-I; MM-3:30-B & MM-3:30-I. Fee: $5.

Make Your Own Gingerbread House

Saturday, December 19, 10:00 a.m.-2:00 p.m. & 1:00–3:00 p.m.
Sunday, December 20, 10:00 a.m.–2:00 p.m. & 1:00–3:00 p.m.

Come build a house of sweets for the holidays and create memories for years to come. Consultant June Myles will show you how to create a no-bake gingerbread fantasy house.

For children ages 5-10. Fee: $38 for one child and accompanying adult. Members only. Program codes: December 19th: morning, MM7-12 & afternoon, MM8-12; December 20th: morning, MM9-12 & afternoon, MM10-12.

Minerals

Tuesday, January 12, 6:30–8:30 p.m.

Sidney Horenstein, geologist and coordinator of the Museum's Environmental Programs, conducts an engaging introductory workshop on minerals. Using actual specimens, Horenstein will demonstrate how minerals are identified, categorized, and collected. Location: Edith C. Blum Classroom. Program code: MM2-1. Fee: $25; members only.

Casting Dinosaur Footprints

Saturday, January 16, 1:00–4:00 p.m.

Follow the tracks of a Dilophosaurus, an Early Jurassic dinosaur, and learn how to make your own dinosaur footprint. Working from a mold taken from a Museum specimen, children prepare a footprint sample, make their own mold, and create a reproduction of a Museum fossil footprint to paint (nontoxic, water-based paints will be used) and take home. The finished cast measures 13" x 12" x 1 1/2." Pamela Popeson, artist and former director of the Museum's Fossil Reproduction Department, will teach the class. Children must be accompanied by an adult. Location: Edith C. Blum Classroom. Program code: MM3-1. Fee: $42 one adult and child; members only.

You are cordially invited to attend a Members' Private Viewing of The Butterfly Conservatory

featuring live, free-flying tropical butterflies in the Hall of Oceanic Birds.
Saturday, December 19 and Friday, January 15, 1999
5:30–8:00 p.m.
Please present your membership card for admission.

Rocks

Tuesday, January 19, 6:30–8:30 p.m.

It is said that rocks represent the pages of earth's history. Join Sidney Horenstein, coordinator of the Museum's Environmental Programs, and learn how to identify common rocks, including igneous, sedimentary, and metamorphic. Knowledge of rocks and their origins gives even the amateur collector insight into the geology of a region. Location: Edith C. Blum Classroom. Program code: MM4-1. Fee: $25; members only.

Hall Tours

Out on a Limb

Friday, January 15, 6:30 p.m.

Trees have always played a major role in the survival of humankind. Join Robert Campanile and learn about the science of trees through history and myth. This time you'll be able to see the forest *and* the trees. Program code: MM1-1; members only.

december

Current Exhibits

Spirits in Steel: The Art of the Kalabari Masquerade
Gallery 77 through January 31
Sacred Arts of Haitian Vodou
Gallery 3 through January 3
Papua New Guinea: Art and Spirits Photographs from the Middle Sepik River, 1953-54
Akeley Gallery through March 28

Tuesday 1

Wednesday 2

Thursday 3

Friday 4
Amateur Astronomers Association
Kaufmann Theater; 6:00 p.m.

Saturday 5
From Vodou Adjae to Revolution: The Music of Boukman Eksperyans
Concert by Boukman Eksperyans
Kaufmann Theater; 2:00 & 4:00 p.m.

Sunday 6
Mashantucket Pequot Museum
Day trip to new Native American museum in Connecticut
8:00 a.m.–6:00 p.m.; Program code:MM4-12

Monday 7
Biodiversity and What You Buy
Lecture on the environmental impact of product packaging
Kaufmann Theater; 7–8:30 p.m.

Tuesday 8
Linnaean Society of New York
Kaufmann Theater; 7:30 p.m.

Wednesday 9
New York Mineralogical Society
Edith C. Blum Classroom; 6:30 p.m.

Thursday 10

Friday 11
Natural History of the Holidays
Hall tour with Robert Campanile
6:30 p.m.; Program code: MM1-12

Saturday 12
Origami Workshops
Beginner and intermediate classes
10:30 & 11:30 a.m.; 2:30 & 3:30 p.m.

Sunday 13
Breaking Leaves: The Healing Arts of Haitian Vodou
Discussion on traditional healing
Linder Theater; 2:00–4:00p.m.

Monday 14
Chanukah begins

Tuesday 15
New York Entomological Society
Leonhardt People Center; 7:00 p.m.

Wednesday 16

Thursday 17

Friday 18
A Dickens of a Scrooge
Robert Campanile; *6:30 p.m.; Progra code: MM2-12*

turday **19** **Members' Family Holiday Party**
2:00–5:00 p.m.; Program code: MM3-12

Make Your Own Gingerbread House
Children create gingerbread houses
10:00 a.m.–12:00 p.m. & 1:00–3:00 p.m.
Program codes: MM7-12 & MM8-12

nday **20** **New York Turtle & Tortoise Society**
Linder Theater; 10:30 a.m.

Make Your Own Gingerbread House
Children create gingerbread houses
10:00 a.m.–12:00 p.m. & 1:00–3:00 p.m.
Program codes: MM9-12 & MM10-12

onday **21**

esday **22**

ednesday **23**

ursday **24**

Friday **25** **Christmas Day**

Saturday **26**

Sunday **27**

Monday **28**

Tuesday **29**

Wednesday **30**

Thursday **31** **New Year's Eve**

Phone Numbers at Your Fingertips

Museum Information	(212) 769-5100
Membership Office	(212) 769-5606
Planetarium Information	(212) 769-5900
Members' Birthday Parties	(212) 769-5154
Education Department	(212) 769-5310
Planned Giving Office	(212) 769-5119
Discovery Tours	(212) 769-5700
*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
Website	http://www.amnh.org

Upcoming Exhibits

Primates: The Jean Baulu Collection of Antique Prints
Opens December 21 in the Library Gallery.

For program reservations, please call (212) 769-5200

program listings

Department of Education

Hayden Planetarium Lectures & Courses

Why Is There Life in the Universe

Monday, January 11, 7:30 p.m.

Lee Smolin, from Pennsylvania State University, will discuss his theories on the evolution of the universe. After the lecture, Smolin's book, *The Life of the Cosmos*, will be available for purchase and signing. Location: Kaufmann Theater. Program code: HP113L. Fee: $8.

Infrared Astronomy

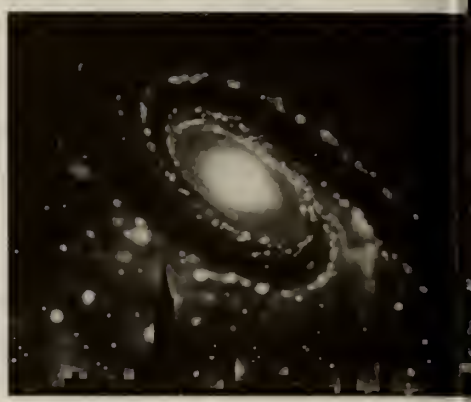
Monday, January 25, 7:30 p.m.

Martin Harwit, former director of the National Air and Space Museum, will present a talk on infrared radiation and how it has enabled scientists to study the early history of the cosmos. Location: Kaufmann Theater. Program code: HP104L. Fee: $8

From Copernicus to Einstein

Wednesday, January 20, 6:30–8:40 p.m.

This course is 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 theory of time and space. No formal training in math or physics is required. The course runs for eight weekly sessions. Instructor: William Dorsey. Program code: HP10. Fee: $95.



Brian Sullivan

City of Stars

Introduction to Astronomy

Thursday, January 21, 6:30–8:40 p.m.

In this course, lecturer Francine Jackson introduces basic concepts in astronomy, including the motions of the planets, the rising and setting of the sun and moon, the Milky Way, and the functioning of the solar system. The class runs for eight weekly sessions. Program code: HP2. Fee: $95

Walk on the Wild Side
American Museum of Natural History

Exercise
your body

Educate
your mind

Escape the cold
Powerwalk to the farthest corners of the earth... at the American Museum of Natural History

Explore
the world

Walk on the Wild Side

A fitness walking program for
Museum members at the Contributor Level ($125+)

December 9, 1998 (Kick-Off Event—Open to non-Members)
Walk on the Wild Side on Wednesdays
15 Sessions between December 9 and March 31

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 Debbie Downs at (212) 769-5588.
Register early—Space is limited!
Use the Museum's main entrance on Central Park West @ 79th Street.
Come dressed to powerwalk and set your own pace.
Coat check available.

Lectures

The Emergence of Agriculture

Monday, December 7, 7:00–8:30 p.m.

Archaeologist Bruce D. Smith will present a slide-illustrated talk on the development of agriculture in different regions around the world, including varied patterns of plant and animal domestication. Smith is a senior research scientist and director of the Archaeobiology Program at the Smithsonian Institution's National

ew of the Hudson River from Fort Tyron Park

luseum of Natural History. His book, *he Emergence of Agriculture*, will be vailable for purchase and signing. rogram code: ED98232L. Fee: $12.

lack Man Emerging: Facing the ast and Seizing a Future

hursday, January 21, 7:00–8:30 p.m.

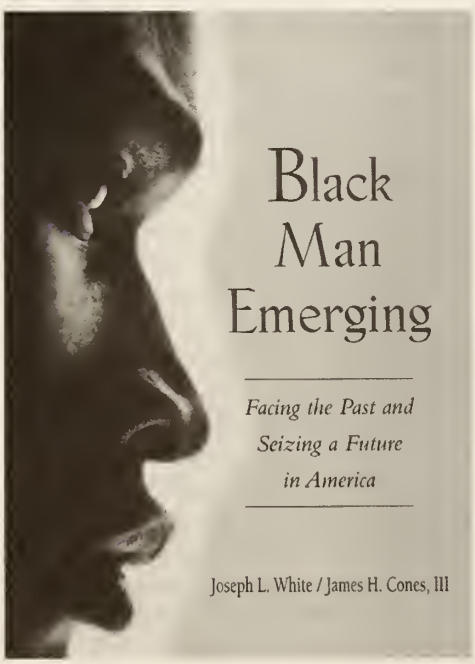
oseph L. White, coauthor with lenry Cones III of the book *Black lan Emerging*, will discuss some of ne issues and conflicts facing African merican men today. White is professor meritus of psychology and psychiatry at ne University of California, Irvine. *Black lan Emerging* will be available for urchase and signing. Location: Linder heater. Program code: ED98235L. ee: $12

ield Trips

nwood Hill and Fort Tyron Park

aturday, January 9

iscover the geological history of nwood Hill Park and Fort Tyron Park n two walking tours with Sidney lorenstein, coordinator of the Museum's Environmental Programs. Both parks have exposures of schist bedrock and views of the Hudson River. Moreover, Inwood Hill Park boasts the last remaining woodland in Manhattan. The tour of Inwood Hill Park is from 10:00 a.m.–12:00 p.m. Program code: ED98347X. The Fort Tyron Park tour is from 12:00–2:00 p.m. Program code ED98348X. The fee for both walks is $18; $16 members. A single tour is $12; $10 members. Each tour is limited to 25 persons.



Jacket design by Blake Logan

Morningside Heights

Saturday, January 23

Join Sidney Horenstein on a walking tour of Morningside Heights and learn, among other things, about the important role geology played in the Revolutionary War. The morning tour is from 10:00 a.m.–12:00 p.m. Program code: ED98345X. The afternoon tour is from 12:00–2:00 p.m. Program code: ED98346X. Fee: $12; $10 members. Each walk is limited to 25 persons.

Multicultural Programs

Mary: A Dramatic Reading

Friday, January 29, 7:00–8:30 p.m.

Playwright Bara Caseley Swain will give a reading of selected chapters from her novel, *Mary*. The dramatic narrative details how an ordinary woman's life is made extraordinary by a single event. Location: Kaufmann Theater. Free.

museum notes

The Rose Center for Earth and Space: A Vision Shared by Generous Donors

The American Museum of Natural History began construction in December 1996 on one of the most technologically advanced scientific centers in the world: the Frederick Phineas and Sandra Priest Rose Center for Earth and Space, named in honor of the spectacular $20 million leadership gift of Frederick and Sandra Rose.

"Our goal is to help create a place that will spark curiosity in the minds of millions of youngsters about the wonders of space and the mysterious processes that created our planet and brought it to life," said Mr. Rose, one of New York's most admired philanthropists.

"Through Fred and Sandy Rose's generosity and deep commitment to learning, the new Rose Center will take visitors on a journey from the far reaches of the universe to the inner core of our fragile planet," noted Museum president Ellen V. Futter. "Their influence on the public's understanding of the cosmos will be felt for generations to come."

Opening at the turn of the century, the Rose Center will serve as the educational link between individuals, local communities, and science information centers, such as NASA and the National Weather Service. Through state-of the-art technologies, it will bring scientific research and the wonders of the cosmos directly into classrooms, libraries, and community science centers, as well as into the Planetarium's new Sky Theater and the Center's exhibition halls.

Long-time Museum trustee Richard Gilder's early and continuing leadership, as well as his munificent support, also helped to launch the project. "Dick Gilder is a visionary who early on stimulated our thinking about what an important and truly fantastic gateway to the universe this could be," said president Futter. "Dick encouraged us to 'think big,' and we did!"

An architectural drawing of the new Frederick Phineas and Sandra Priest Rose Center for Earth and Space, scheduled to open on December 31, 1999.

The Rose Center will include a completely reconstructed Hayden Planetarium and two extraordinary new halls: the Lewis B. and Dorothy Cullman Hall of the Universe and the Hall of Planet Earth. "Lewis and I have always been involved in the American Museum of Natural History's great science programs," said Museum trustee Dorothy Cullman. "The new Planetarium project lets us expand our interest into the cosmos, which I believe is the cutting edge of science exploration." Visitors to Cullman Hall will witness the birth of the universe, the death of a star, and the development of a black hole. They will explore the possibility of life on other planets, discover the origins of the elements, learn how we are made of star dust, and watch galaxies merge and collide.

The Cullmans have committed more than $12.6 million to the campaign, including a gift to establish the Lewis B. and Dorothy Cullman Millennium Arts Program, which will bring music, sculpture, and poetry to the Center's opening celebrations. "Dorothy and Lewis Cullman have long been intrigued by the mysteries of the natural world and by the interrelationship between the arts and the sciences," said president Futter. "Now their magnificent gifts will allow the Museum to share their knowledge and understanding with the entire public."

The Hall of Planet Earth will be the first of the new halls to open in 1999. Using 134 geological samples gathered from around the world, this marvelous hall will show the earth's processes and the conditions that make our planet habitable. Visitors will learn why there are ocean basins, continents, and mountains; how earthquakes and volcanoes work; what controls climate; and why the earth can sustain life.

The new Hayden Planetarium, contained in the giant 90-foot-diameter sphere that is to be the centerpiece of the new Rose Center, has been funded in part through a $5 million grant from the Charles Hayden Foundation. "This wonderful gift sustains the historic link of the Hayden name to the Planetarium, a relationship fondly entrenched in the hearts of the millions of visitors who have loved the Planetarium since they visited it as schoolchildren," said Neil Tyson, Frederick P. Rose Director of the Hayden Planetarium.

In the upper half of the Hayden Planetarium, visitors will travel to the edge of the universe and beyond in the most technologically advanced sky

continued on page 14

Kids' Stuff

A Fun Page for the Naturally Curious from Workman Publishing

MOLLY'S MUSEUM TOUR

In How to Take Your Grandmother to the Museum, recently published by Workman Publishing, Molly brings her grandmother to the Museum for her very first visit. Using the word list, can you find 17 words connected to their Museum trip? Look down, across, backwards, and diagonally.

WORD LIST

CLAM
METEORITE
GEODE
OSTRICH
DIORAMA
PTEROSAUR
MUSEUM
AFRICA
DATOLITE
TADPOLE
ICE AGE
MAMMOTH
QUARTZ
APATOSAURUS
SAFARI
ANATOTITAN
OBSIDIAN

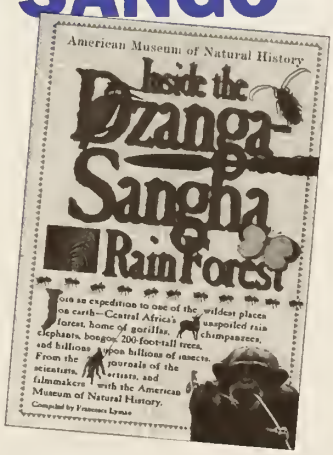
J	R	A	C	N	P	T	E	R	O	S	A	U	R
P	C	L	D	T	A	C	I	R	F	A	Q	V	T
I	A	P	A	T	O	S	A	U	R	U	S	E	A
M	U	E	N	L	T	E	H	G	P	O	Q	B	D
L	N	L	A	J	D	I	O	R	A	M	A	M	P
F	D	O	T	C	R	S	B	Q	M	Z	K	E	O
E	L	E	O	B	S	I	D	I	A	N	R	T	L
T	D	W	T	B	E	R	H	P	Q	C	D	E	E
I	P	N	I	O	N	D	E	I	L	L	Z	O	M
L	C	H	T	S	D	H	O	P	Y	G	Z	R	H
O	K	L	A	T	S	E	M	E	I	E	R	I	T
T	B	A	N	R	A	F	G	N	G	F	Y	T	O
A	P	R	T	I	F	H	F	A	R	U	K	E	M
D	U	L	G	C	A	T	E	I	H	A	S	X	M
F	M	O	K	H	R	C	Q	U	A	R	T	Z	A
E	K	C	P	D	I	V	X	M	U	S	E	U	M

Language Lesson: SANGO

If you think learning French or Italian would impress your friends, what about learning Sango? Sango is the national language of the Central African Republic, home to the Dzanga-Sangha rain forest, which is featured in the Museum's new Hall of Biodiversity.

Below are a few common phrases.

Bai: saline, clearing
Nga-BEE-bar-ah-moh: Good morning. Good evening.
OHN-gah-NAH-nee-aye?: How are you?
ah-pay: I'm fine.
Been-GAY-lay-MEEN-gee: Thank you.
Bee-GUAY-ah-way: Good-bye.



ant facts

Did you know that some ants are farmers? And that ants can lift objects several times larger than themselves with their jaws? Test your ant IQ by circling true or false for each of the sentences below. Then check your score with the answers at the bottom of this page.

1. The largest ant in a colony is the queen. *True or False*

2. Ants use their antennae to touch, taste, and smell. *True or False*

3. Ants always live in groups of five. *True or False*

4. Ants are very weak for their body size. *True or False*

5. Ants live only in the United States. *True or False*

6. An ant is an insect. *True or False*

7. An ant has eight legs. *True or False*

8. Ants never have wings. *True or False*

9. Some ants sleep through the winter. *True or False*

10. Some ants have five eyes. *True or False*

11. Male ants never live longer than a month. *True or False*

12. Ants never eat human food. *True or False*

Answers: 1. True 2. True 3. False 4. False 5. False 6. True 7. False 8. False 9. True 10. True 11. True 12. False. *Score: 1 to 6 correct—You are an ant beginner. 7 to 10 correct—Keep up the good work. 11 to 12 correct—You are an ant expert.

How to Take Your Grandmother to the Museum, Inside the Dzanga-Sangha Rain Forest, and Very First Things to Know About Ants are all available at the Museum bookstore and shops as well as at bookstores throughout the country.

© Workman Publishing Company, Inc.

museum notes

continued from page 12

theater ever created—one of the largest virtual reality theaters in the world. Much of the Sky Theater's magic will come from the Hayden Edition Zeiss Universarium MKIX, purchased through a generous contribution of $3.5 million from newly elected Museum trustee Joan Bull. The Zeiss's 32 projectors will create the entire night sky with the moon, planets, sun, and stars. In the lower hemisphere of the giant sphere that houses the Hayden Planetarium, a new Big Bang Theater will reenact the first three minutes of the formation of the universe.

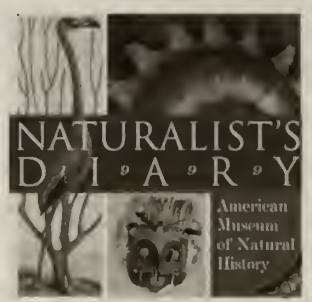
A 300-foot spiraling walkway will lead visitors from the Big Bang Theater to the Cullman Hall of the Universe. Named the Harriet and Robert Heilbrunn Cosmic Pathway in honor of their generous commitment of $3 million, it will illuminate the 15-billion-year story of the universe. Major milestones in the life of the universe, such as when galaxies began forming, when star formation peaked, when our star system formed, and when life on earth began, are shown along the pathway.

Give a Gift for All Seasons

A Membership in the American Museum of Natural History

Why not send a unique gift that lasts throughout the year? Your friends and relatives can enjoy all the privileges of membership, including complimentary Museum admission, a year's subscription to *Natural History* magazine and *Rotunda* (our members' newsletter), invitations to members' previews, and much more.

Choose either the Individual $45, Dual $60, or Family $75 category, and we'll do the rest. As a special holiday bonus, we'll send AMNH's beautiful 1999 engagement calendar, Naturalist's Diary (a $13.95 value, pictured right), along with a personalized holiday card to announce your thoughtful gift.



Please send a one-year membership at the category indicated to the person(s) listed below:

[ ] Individual [ ] Dual [ ] Family

Recipient's Name

Street Address

City State Zip

[ ] Individual [ ] Dual [ ] Family

Recipient's Name

Street Address

City State Zip

Enclosed is my check for $_____ Please charge to my ____Visa ____MC ____Amex

Card no. _____ Expiration date _____

Signature_____

Your Name

Street Address Telephone

City State Zip

I understand that this special offer, which expires December 31, 1998, is not valid for renewing my own membership.

Please mail this form, with your payment, to: AMNH, Membership Department, Central Park West @ 79th Street, New York, N.Y. 10024-5192

The new north side of the Museum will feature the Arthur Ross Terrace, an outdoor oasis named in recognition of the generous $2.5 million gift from Museum trustee Arthur Ross. The terrace, nearly an acre in size, will feature a beautifully landscaped garden and reflecting pool adjacent to Theodore Roosevelt Park.

Thanks to the generous supporters of the Rose Center and the Planetarium Committee, co-chaired by Museum trustees Donald K. Clifford, Jr. and Richard Gilder, the Rose Center will provide millions of visitors each year with a new understanding of space and time, of the workings of the earth and the universe, and of humanity's place within them.

Get Ready for 1999 with the Museum Calendar and Engagement Diary

The 1999 Museum calendar and our exclusive engagement diary have arrived at the Museum Shops.

The 1999 Beetles Calendar, photographed by Schecter Lee, with text and calligraphy by Sarfraz Lodhi, senior scientific assistant in the Museum's Department of Entomology, portrays dozens of colorful beetles, including the aggressive tiger beetle, the infamous Spanish fly, and the speckled rose chafer. The impressive specimens were chosen by Lee Herman, curator of Coleoptera in the Museum's Department of Entomology. A highlight of the calendar is its centerfold poster, which features thirty images of these jewel-like insects.

Drawing on a wide assortment of art and artifacts from the Museum's collections—from dinosaur research to rare books—the 1999 Naturalist's Diary is a veritable tour of the Museum's famous halls. Each week opens to a full-page, color illustration, or photograph and a generous daily planner. Moreover, at 7 x 7 inches, the diary fits neatly into a briefcase or on a desk.

The Beetles Calendar is available for $9.95 and the engagement diary for $13.95. Both are published in conjunction with Workman Publishing

ne Museum Shops

is holiday season, put the Museum ops at the top of your list as a llective source for fine and unique fts for family and friends.

celebrate the exhibition *Sacred rts of Haitian Vodou*, the Museum op on the third floor will feature an ceptional array of Haitian crafts, cluding flags, spirit bottles, sequined gs, and ornaments. Additionally, the op will carry a line of vodou-inspired ems, such as pure silk ties and arves, pins and pendants, and shirts adorned with *veves*, symbols awn by vodou practitioners. Books the Vodou religion are also ailable. Prices range from under $5 $900.

the main shop, a fossil collection—sembled in consultation with useum scientists—of vertebrates, fish, and plants, will available at prices ranging from .77 to several hundred dollars. All ssils are purchased from thorized vendors with the approval of Museum scientists. Only the most common fossils will be sold. The main shop also features a wide assortment of ethnic crafts and giftware, including hand-colored prints, silk ties and scarves, jewelry, and beautiful mineral specimens.

Denis Finnin

An assortment of giftware available in the Museum Shops

And don't miss the Butterfly Shop just off the Rotunda, which offers shoppers a wonderful assortment of products decorated with butterfly imagery.

If you don't have time to visit the Museum, visit our holiday booth at the Grand Central Market, located in Grand Central Terminal. The booth will carry a variety of Museum gifts for children and adults alike. The Museum shops are also online at www.amnh.org.

For a finishing touch, choose from the Museum's own collection of gift wrapping paper: six beautiful patterns with matching enclosure cards.

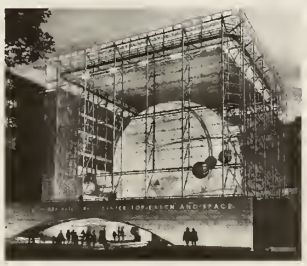
And don't forget that on December 11, our annual Members Shopping Day, members receive an additional ten percent off their already discounted purchases.

Members' Birthday Parties

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. For more information, please call (212) 769-5154.

PROVIDE
FOR YOUR RETIREMENT

AND HELP THE AMERICAN MUSEUM OF NATURAL HISTORY... MOVE FORWARD IN THE NEW MILLENNIUM



The new Frederick Phineas and Sandra Priest Rose Center for Earth and Space, scheduled to open on December 31, 1999

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 _____

City _____ State _____ Zip _____

Phone: (Home): _____ (Office): _____

Your reply is confidential and implies no obligation.

Museum Hours

Exhibition Halls

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

The Museum Library

Tues. - Fri.	11:00 a.m. - 4:00 p.m.

Museum Dining

Diner 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.

Natural Science Center

There are many wild places in the New York area, and the Center features these habitats' 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.

The Museum Shop

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

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.

Central Reservations Coup

Program Name/Date # Members

_____

_____

_____

Total $

Mr./Mrs./Miss/Ms.

Address

City State Zip

Telephone (Day) (Evening)

Membership No.

❑ Check ❑ Am.Ex. ❑ Visa ❑ Master Card

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 above 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.

Rotunda
AM. MUS. NAT. HIST. LIBRARY
Received on: 12-11-98

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 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.

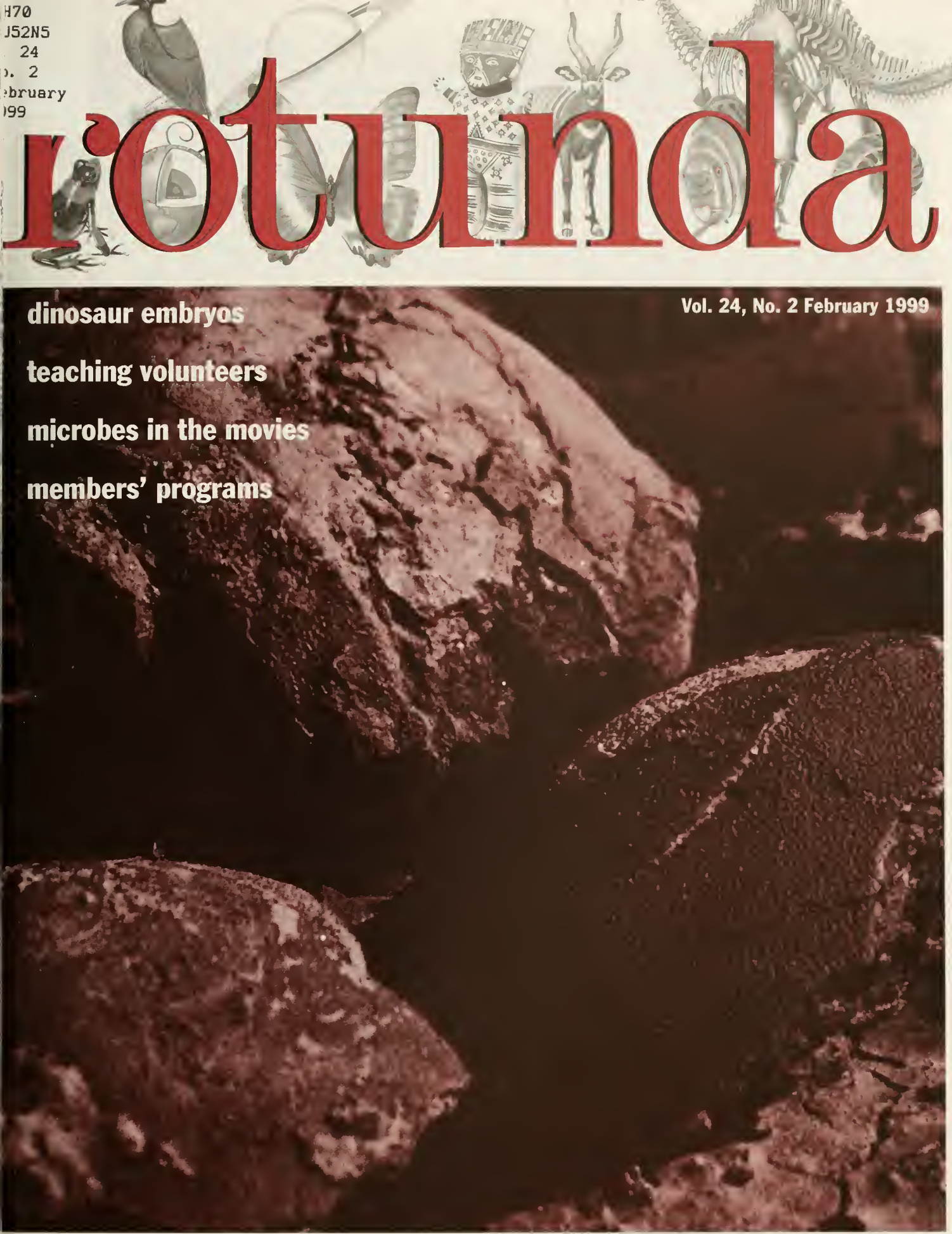
American Museum of Natural History

Membership Department,
Central Park West at 79th Street
New York, New York 10024-5192

Don't miss the unveiling of the giant squid in the Hall of Biodiversity

H70
J52N5
24
). 2
ebruary
)99

rotunda



dinosaur embryos

teaching volunteers

microbes in the movies

members' programs

Vol. 24, No. 2 February 1999

American Museum of Natural History Members' Newsletter

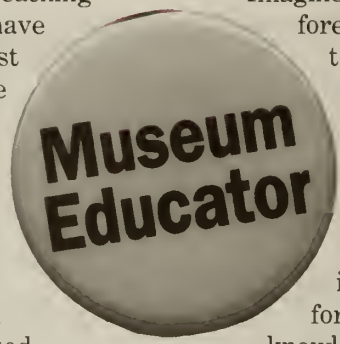
teaching volunteers

Wednesday, 10:20 am, Berna Villiers, a teaching volunteer, is guiding fourth graders through the museum. The students are learning about Biodiversity by concentrating on various habitats.

Berna leads them to the Forest Floor diorama and encourages the children to look closely. "What kind of a place is this?" she asks. One fourth grader responds, "A giant place. Everything is huge. Look at that worm!" She is pleased that the children are focused and serious about looking. Berna is skillful with her questioning techniques and is able to keep the children's attention for the hour the class is here at the museum.

All morning, the exhibition halls are bustling with classes led by teaching volunteers. Their numbers have grown significantly in the past three years. Currently, more than 120 teaching volunteers enhance students' knowledge of natural history and culture at the Museum.

Volunteers do not work from scripts but are given suggested lesson plans that leave plenty of room for their own creativity and style. Mavis Swire is in the Hall of African Peoples taking a fifth grade class around. This veteran teaching volunteer discusses the way of life practiced by groups living in the grasslands, rainforest, and deserts.



"Imagine that you live in this forest. What might you use to build your house?" she asks. With an encouraging nod, Mavis listens to the ideas offered by the students. She welcomes these interactions, which allow for the sharing of knowledge and ideas.

"It is important to get the children to 'look' at the dioramas and the objects displayed in the halls," explains volunteer Connie Kolb. "Museums offer a unique opportunity to study objects and put them in a context. In our training we learn to respond to students' questions and encourage group interactions. It is exciting to use these techniques with visiting students and discover we can share our knowledge. The students already possess a lot of important information."

Teaching volunteers combine their life experiences with the training they receive through the Museum's Education Department staff.

Louis Blumengarten, a volunteer and a serious student of dinosaur lore, does not lecture. He helps the children discover for themselves. "What evidence do you have that Tyrannosaurus Rex was a carnivore?" he asks the class gathered underneath the massive skeleton in the Dinosaur Hall. "The razor-like teeth tell us that the dinosaur ate meat," answers a sixth grade student. "His teeth look as sharp as steak knives," another excited students exclaims. Satisfied with their observations, Louis challenges the class. "Let's look at the teeth of a plant-eating dinosaur and compare."

AMNH

Students play with museum objects displayed on a rolling cart under the guidance of a teaching volunteer.

ıching volunteers from left to right: Alan Orenge, Sylvia Rieger and Elizabeth Roosevelt.

hile some volunteers guide classes rough a specific hall, others work th "rolling carts". These carts ntain objects or specimens related to specific hall's theme. Volunteers and ucation department staff are nstantly creating new carts and dating existing ones.

"We have a choice of twelve carts. Each one is unique and contains objects that stimulate the students," explains Alan Orenge, the volunteer responsible for the cart program.

On the cart used in the Hall of Eastern Woodland Indians, the most popular activity is corn grinding. Sylvia Rieger, a dedicated volunteer, helps the students place whole corn kernels on a flat rock surface. Using a large stone, the students smash the kernels and then grind them into cornmeal.

In addition to scheduled guided tours, many registered classes arrive for "self-guided" museum walks. This is an added challenge for teaching volunteers. When a class appears to be wandering in the exhibition halls, Cecile Rodau, a retired teacher, approaches and offers to guide them. This gesture is a delightful surprise for the teacher and her class.

Donna Sethi, Manager of Education Volunteers, is concentrating her efforts to increase the number of participants and expand the training program. "Our goal is to have a knowledgeable and resourceful teaching volunteer available to meet every one of the thousands of classes that visit the Museum each year," she says. In 1999, the teaching volunteer program will be expanded to cover afternoon hours and weekends.

Volunteers are trained by natural science and anthropology instructors from the Museum's education staff, and by experienced members of the teaching volunteer program. Peer review and a lively mentoring system are encouraged.

Anyone over eighteen who is looking for a rewarding challenge is welcome to become a part of this exciting program. If you are interested in volunteering a minimum of four hours a week to enhance students' educational experiences, and if you would enjoy working with creative colleagues, call the Volunteer Office at 212-769-5566. Specify that you are interested in becoming an Education Volunteer.

Cover photo: Dinosaur eggs in situ as discovered in Patagonia;© AMNH 1999

rotunda

ISSN 0194-6110

Vol. 24, No. 2, February 1999

Anne L. Washington, Editor
Michel DeMatteis, Copy Editor
Peggy Conversano, Designer
Rosemary Caulk, Director of Membership

Rotunda is published monthly, except for a combined issue in July/August, by the Membership Office of the American Museum of Natural History, Central Park West @ 79th Street, New York, N.Y. 10024-5192. Telephone: (212) 769-5606. Museum membership of $45 per year and up includes a subscription to *Rotunda*. © 1999 American Museum of Natural History. Periodical postage paid at New York, N.Y., and at additional mailing offices. Postmaster: Please send address changes to *Rotunda*, Membership Office, AMNH, at the above address. Printed in the USA.

events & exhibitions

Microbes in the Movies

The microbes that create epidemics are invisible; the diseases they produce and their impact on individuals and communities are not.

Ten provocative programs explore the depiction of infectious disease in film, as well as the cultural and historical contexts in which these portrayals were created. Included are examples ranging from the early years of silent cinema to public service announcements, animation, documentary, science fiction, and outrageous musical comedy. Discussions with filmmakers, media critics, health specialists, and activists follow the screenings.

Series: $63 ($54 members, students or senior citizens) Individual programs: $8 ($7 members, students or senior citizens) Location: Kaufmann Theater, first floor. For tickets call 212-769-5200. (Please refer to program code.)

Hollywood Sci-Fi Meets Biological Terrorism
Wednesday, March 3, 6:30-9:00 p.m.

The Satan Bug (U.S.) John Sturges. 1965. A lethal virus has been stolen from a top-secret U.S. government laboratory. This psychological thriller and Cold War period piece captures the anxiety posed by the threat of an invisible invasion. 114 min. 35mm film. Drama. Program STD1

From Hookworm to AIDS: Getting the Word Out
Saturday, March 6, 12 noon-2:00 p.m.

Unhooking the Hookworm (U.S.) 1920. Provides an early example of the innovative use of film to educate communities about public health issues. 10 min. B & W. Silent. *Images of HIV/AIDS Around the World* (U.S.) Stanford Public Health Service Project. 1994. 23 minutes. N.Y. Premiere. This compilation of live-action and animated sequences shows how worldwide media campaigns use comedy and drama to educate people about the AIDS virus. *Decision: Julio & Marisol* (U.S.) 1990-present. This bilingual HIV-prevention campaign serves as a case study of the application of social marketing principles to public health practice. 30 minutes. Program STD2

Secret People

***Secret People*, the story of the last remaining leprosy sanatorium in America.**

Targeting TB: Film in the Anti-Tuberculosis Campaign
Saturday, March 6, 2:30-4:15 p.m.

Let My People Live (1938. 14 min.), in which a poor black southern woman applies home remedies to eradicate TB; *Another to Conquer* (1941. 22 min.), a dramatization of TB transmission in a Navajo community; and *Target TB* (1950. 15 min.), which linked TB prevention to national security. 51 min. Program STD3

ark O'Brien, poet and NPR commentator, in
eathing Lessons.

bola: In Our Backyard?
aturday, March 6, 4:30-6:00 p.m.

he Plague Monkeys (U.S.) Elliott
alpern. 1995. 56 min. Video.
ocumentary. This film explores the
989 Ebola scare in Reston, Virginia.
follows virus hunters and looks at
ne techniques that were employed to
eep the potential epidemic under
ntrol. Program STD4

**eprosy: Dawn of Contagious
isconceptions**
aturday, March 6, 6:30-8:30 p.m.

ecret People (U.S.) John Anderson,
aura Harrison. 1998. 59 min. 16mm
lm. Documentary. U.S. Premiere.
he voices of those living in the last
emaining leprosy sanatorium, in
arville, Louisiana. Program STD5

**olitics & Epidemic: Big Business
Government**
unday, March 7, 12:00 noon-2:30 p.m.

ardinian Project (Italy) Jack
hambers, Arthur Calder-Marshall.
948. 35 min. Documentary. Video.
ocialism or Death (Cuba) Bengt
orborg, Bo Sand. 1995.48 min.
ocumentary. Video. Program STD6

**ative Communities Face Epidemics:
esterday & Today**
unday, March 7, 3:00-5:30 p.m.

esterday: TB in the Central Arctic
oppermine (Canada) Ray Harper.
992. 55 min. Documentary. 16mm.
.Y. Premiere.
oday: AIDS in Indigenous Australia
ow Could I Know? (Australia) John
hitteron. 1991. 4 min. Music Video.
.S. Premiere.

Help Stop AIDS (Australia) CAAMA Productions. 1989. U.S. Premiere. 17 min. Documentary.
The Adventures of Cuz Congress (Australia) David Batty. 1991. 15 min. excerpt. Drama. U.S. Premiere.
Everybody's Business (Australia) CAAMA Productions. 1993. 15 min. excerpt. Drama. U.S. Premiere. Program STD7

In Their Own Voices
Thursday, March 11, 6:30-8:30 p.m.

Breathing Lessons: The Life and Work of Mark O'Brien (U.S.) Jessica Yu. 1996. This film questions all notions about living with disability. 35 min. 16mm film. Winner of the 1996 Academy Award for best short documentary.
The Spirit Within (U.S.) Scott Thode. 1994-1996. Stunning portraits and candid reflections offer a range of responses to living with HIV-AIDS. 30 min. Slide Presentation. Program STD8

"Syphilis at the Cinema": U.S. Public Health Service VD Films of World War II.
Thursday, March 18, 6:30-8:30 p.m.

John Parascandola, historian, U.S. Public Health Service, presents the films *Know for Sure, A Venereal Disease Rapid Treatment Center,* and *To the People of the United States,* which were produced for the Public Health Service as part of an information campaign about syphilis and gonorrhea. Please note: Some of the these films contain graphic sequences. Total Running Time: 50 minutes. Program STD9

Sick Humor, Dark Comedy
Thursday, March 25, 6:30-9:15 p.m.

Don't Run Johnny (U.S.) Tom E. Brown. 1996. 7 min. 16mm film. B & W. Rubber Gloves (U.S.) Tom E. Brown. 1998. A twisted take on the social, physical, and psychological consequences of living with Aids. 6 min. B & W. 35mm film. N.Y. Premiere Zero Patience (Canada) John Greyson. 1993. 120 min. 35mm film. **Please note: Highly graphic. For mature audiences only.** Program STD10

Black History Month

February is Black History Month at the Museum. The Department of Education is presenting a series of free weekend events and programs.

Come celebrate cultures of the African diaspora. All events in the Leonhardt People Center. Events take place Feb 6-7, Feb 13-14, Feb 20-21. For more information, please call (212) 769-5315.

AMNH

Dinizulu African Dancers, Drummers & Singers performing a Nigerian dance of welcome at the 1998 Black History Month Festivities.

members' programs

Lectures

The World of Maps

Wednesday, February 10, 7:00 p.m.

Sidney Horenstein, coordinator of the Museum's Environmental Programs, will present a slide-illustrated lecture on cartography. The talk will focus on map-making techniques from ancient times to the present, including the use of satellite technology. The diversity of maps, as well as mapmakers, will also be discussed. Location: Linder Theater. Program code: MM1-2. Fee: $12; $10 members.

On the Track of Unknown Mammals in Wildest New Guinea

Wednesday, March 10, 7:00 pm

New Guinea is the second largest island on earth and one of the world's last biological frontiers. Tim Flannery, chairman of the Department of Mammalogy at the Australian Museum, has been exploring the island for the last 20 years.

Andrea Raynor

Tim Flannery

In this slide-illustrated lecture, Flannery will talk about his discovery of more than twenty new species of mammals, including a black and white tree-kangaroo, possums, echidnas, bats, bandicoots, and meter-long giant rats.

He also discovered fossilized remains of unknown marsupial giants which became extinct at the end of the ice age, and rediscovered the world's largest cave-dwelling bat, previously thought to have become extinct.

His new book, *Throwim Way Leg*, will be available for purchase and signing. Location: Kaufmann Theater. Program code: MM3-5. Fee: $8 members/$10 non-members.

Tim Flannery

***Dingiso*, (Dendrolagus mbaiso) black and white tree-kangaroo discovered Flannery in 1994.**

Geology of the Revolutionary War in Metropolitan New York

Tuesday, March 16, 7:00 pm

Discover how closely the battles and troop movements during the Revolutionary War were governed by the geology of the New York area. From the initial massing of the British in Lower Bay to the retreat northward of the American troops under Washington, the underlying geology played a critica role. You will learn about the Revolutionary War and military maneuvers of the day, as well as about metropolitan New York's complex geology. Sidney Horenste presents this fascinating slide-illustrated lecture. Location: Lind Theater. Program code: MM3-6. Fe $8 members/$10 non-members.

You are cordially invited to attend a Members' Preview Party

Epidemic!

The World of Infectious Disease

Friday, February 26
5:30–8:30 p.m.
Cash bar available
Please present your membership card for admission

pecial Programs

piphany 2000

s the countdown toward the new ntury begins, join Seth Twigs obert Campanile), nature's ilosopher, as he contemplates our rection as a species and how science s both destroyed and sustained our ith in the future.

rough conversation and ntemplation, Seth Twigs will explore w thoughts about scientific owledge on the edge of the llenium. Each month brings a new ought-provoking topic.

bert Campanile will be the lecturer r this year-long series. Please note at registration is limited to forty dividuals throughout the entire ogram. Fee for all 12 lectures: $65; embers only. All sessions will be held Friday at 6:30 p.m. Program code: M3-2. The following list provides the te and title of each lecture:

l or Nothing, January 29, 1999;
l Matter Below the Moon, Feb 19;
at's Life, March 26;
emains of the Day, April 23;
ots, May 21;
lent Majority, June 25;
unds Fishy to Me, July 16;
Cold Blood, August 6;
eathers, September 24;
Hairy Situation, October 22;
umanimal, November 19;
ne Eternal Essence: a.k.a. God, ecember 10.

Workshops

Map-making Workshop

Wednesday, February 17, 6:30–8:30 p.m.

Learn to create your own maps under the expert guidance of the museum's coordinator of Environmental programs, Sidney Horenstein. Participants in this workshop will learn the basic elements of map-making, including how to create scales, compass directions, and latitude and longitude.

You'll also have the opportunity to examine a variety of maps and learn how to interpret them. At the end of the class, you will be proficient at deciphering all the squares, dots, lines, colors, and numbers on most maps. Location: Edith C. Blum Classroom. Program code: MM2-2. Fee: $25; members only.

Casting Paper Butterflies

Sunday, March 7, 1:00 and 3:00 pm

Butterflies are wonderfully diverse in shape, size and color. This hour-long workshop will give you and your child the opportunity to create one of these beautiful creatures, casting prepared molds with non-toxic materials and recycled paper.

Whether you choose to make a Blue Morpho, an Owl, a Cloudless Sulphur, or another of the species, that reside in the Butterfly Conservatory, you will have a colorful 5 x 7 butterfly to take home.

Pamela Popeson, artist and former director of the Museum's Fossil Reproduction Department, will teach the class. Children must be accompanied by an adult. Location: Edith C. Blum Classroom. Program code: MM3-4. The fee for the workshop is $42 for one adult and child; members only.

Hall Tours

MuseumStruck

Saturday, February 13, 6:30 p.m.

Roses are Red
Violets are Blue
A Museum Valentine Tour
With Campanile and You !
Valentine's Day hall tour with Robert Campanile. Program code: MM2-3; members only. Free.

King of the Wild Frontier

Tuesday, March 6, 6:30 p.m.

Join us to celebrate the myth and folklore of the American frontier, interwoven with the legendary life of Davy Crockett.

Using the North American Mammal Hall dioramas as a background, we will trace Crockett's life while discussing the natural environment of his times. This day marks the anniversary of Crockett's death in 1836 while defending the Alamo. Robert "Davy Docent" Campanile will be your frontier guide. Program code: MM3-3; members only. Free.

february

Current Exhibits

Papua New Guinea: Art and Spirits
Photographs from the Middle Sepik Riv
Akeley Gallery through March 28

Primates: The Jean Baulu Collection of Antique Prints
Library Gallery through April 25

Dinosaur Eggs from Patagonia
Orientation Center, 4th Floor
through May 1.

Monday **1**
The Winds of Other Worlds
Lecture by Jeff Goldstein
Kaufmann Theater; 7:30 p.m.
Program Code: HP105L

Tuesday **2**

Wednesday **3**

Thursday **4**

Friday **5**
Amateur Astronomers Association
Lecture by Norman Christ "Quarks and Gluons in the Big Bang"
Kaufmann Theater; 6:00 p.m.

Saturday **6**
The Search for the Giant Squid
Lecture by author Richard Ellis
Kaufmann Theater; 1:30–3:00 p.m

Sunday **7**

Monday **8**
Is There Life in the Universe? A Mathematician's Perspective
Lecture by Amir Aczel
Kaufmann Theater; 7:30 p.m.
Program Code: HP114L

Tuesday **9**
Linnaean Society of New York
Linder Theater; 7:30 p.m.

Wednesday **10**
The World of Maps
Linder Theater; 7:00 p.m
Program code: MM1-2.

Thursday **11**

Friday **12**
14th Annual New York Sword Da Festival
Kaufmann Theater; 1:30 & 3:00 p.m

Saturday **13**
Museumstruck
Hall tours with Robert Campanile
6:30 p.m.; Program code: MM2-3

Sunday **14**
New York Shell Club
Edith C. Blum Classroom; 2:00 p.

Monday **15**
Presidents' Day

Tuesday **16**
New York Entomological Society
Leonhardt People Center; 7:00 p.m

Wednesday **17** **Map-making Workshop**
Edith C. Blum Classroom; 6:30–8:30 p.m
Program code: MM2-2

Thursday **18**

Friday **19**

Saturday **20**

Sunday **21** **New York Turtle & Tortoise Society**
Linder Theater; 10:30 a.m.

New York Paleontological Society
Room 319; 2:00 p.m.

Monday **22**

Tuesday **23** **Linnaean Society of New York**
Linder Theater; 7:30 p.m.

Wednesday **24**

Thursday **25** **New York Microscopical Society**
Leonhardt People Center; 7:00 p.m.

Friday **26** **Members' Preview Party of Epidemic!**
Gallery Three; 5:30-8:30 p.m.

Saturday **27** **Discovery Room**
Museum Magic theme is "Discovery Room Tree: Leaves in a Tree". For children five & above. Free. (repeated Febuary 28)
Leonhardt People Center; 2:00 p.m.

Sunday **28** **New York Mycological Society**
Edith C. Blum Classroom; 1:00 p.m.

Phone Numbers at Your Fingertips

Museum Information	(212) 769-5100
Membership Office	(212) 769-5606
Planetarium Information	(212) 769-5900
Members' Birthday Parties	(212) 769-5154
Education Department	(212) 769-5310
Planned Giving Office	(212) 769-5119
Discovery Tours	(212) 769-5700
*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
Website	http://www.amnh.org

Upcoming Exhibits

Epidemic! The World of Infectious Disease
Opening February 27 in Gallery Three

Microbes in the Movies
Runs March 3 through 25

Endurance: Shackleton's Legendary Antarctic Expedition
Opening April 10th

For program reservations, please call (212) 769-5200

AMNH Herpetology

program listings

Department of Education

Lectures

Art and Physics: Parallel Visions

William R. Dorsey will present a four-part lecture series on how artistic movements throughout history may have influenced theoretical models in physics. Program code: ED99201L. Fee: $30 for series; $27 members. Individual lectures are $12; $10 members. All talks are Fridays from 7:00–8:30 p.m.

Cubism and Space, Futurism and Time
February 19
Surrealism and Relativist Distortion: Manet, Monet, and Dali
February 26
Space-Time and Mass Energy, Weightless Forms, and Gravitational Forces
March 5
Curved Space-Time, Music, Art, and Physics
March 12

In China and Ethiopia with Jeffery Boswall
Monday & Wednesday, February 22 & 24, 7:00–8:30 p.m.

British documentary television producer Jeffrey Boswall will present two films, *The Chinese and Their Animals*, which surveys current Chinese attitudes toward animals, both wild and domestic, and *Ethiopian Wildlife*, made in 1969. Program code: ED99203L. The fee for both lectures is $20; $18 members. A single lecture is $12; $10 members.

Earthwatch at the Museum

In a five-part lecture series, Earthwatch Institute scientists will present slide-illustrated lectures on their research. The Earthwatch Institute is an international nonprofit organization that promotes sustainable conservation of natural resources and cultural heritage by creating partnerships among scientists, educators, and the general public. The series runs Thursday nights 7:00-8:30 p.m. Program code: ED99202L. Fee for series: $35; $31.50 members. $12; $10 members for single lectures.

American Black Bear

Biology of Black Bears in the Southern Appalachian Mountains
Thursday, February 25, 7:00- 8:30 p.m.

Roger Powell discusses monitoring black bears and conservation strategies for indicator species in the Pisgah National Forest. Powell, associate professor at North Carolina State University's Department of Zoology, has amassed data on the home ranges and movements of 121 black bears and assessed the sanctuary as bear habitat. His conclusion to date is that bear populations "appear to be controlled not by habitat, but by human hunting pressure." Program code: ED99202L. Fee: $12;$10 members.

Other lectures in the Earthwatch series are listed below.
Carnivores of Madagascar
March 25
Hopi Ancestors
April 29
Coral Bleaching In the Bahamas
May 27
Life As a Monkey: Social Behavior of Venezuelan Capuchins
June 24

Historical Geology: The Earth Through Time

This slide-illustrated series explores the history of the Earth—from its origins some 4.5 million years ago to the present time—and speculates about its future. After laying out some basic guiding principles, topics considered are the changing patterns of continents through time, the formation of mountains, and episodes of glaciation, and how fossils are used to determine ancient environment.

Lectures are given by geologist Sidney Horenstein. The series will run four Mondays, from 7:00-8:30 p.m. starting March 8. Program code: ED99205L. Fee for the series is $30; $27 members. $12; $10 members for single lectures.

The Precambrian Era
March 8
The Paleozoic Era
March 15
The Mesozoic Era
March 22
The Cenozoic Era
March 29

An Affair with Africa
Wednesday, March 10, 7:00-8:30 p.m.

Alzada Carlisle Kistner shares her thoughts and experiences of three decades of science discovery in Africa, the subject of her book, *An Affair with Africa: Expeditions and Adventures Across a Continent.* Ms. Kistner is associate editor of the journal *Sociobiology.* The book will be available for purchase and signing. Program code: ED99206L Fee: $12; $10 members.

Carnivores of Madagascar
Thursday, March 25, 7:00- 8:30 p.m.

The island of Madagascar is widely known for its unique species. Seven of the eight carnivores that stalk Madagascar's forests—long and lanky relatives of civets, genets, and mongoose—are found nowhere else in the world.

In this lecture Luke Dollar, founder of the Carnivore Conservation and Research Trust and a Ph.D. student at the University of Tennessee, discusses the exciting discoveries his team has made about these enigmatic predators. This research has helped raise awareness of these unique but highly threatened flagship species. This lecture is part of the Earthwatch Institute series. Program code: ED99202L. $12; $10 members.

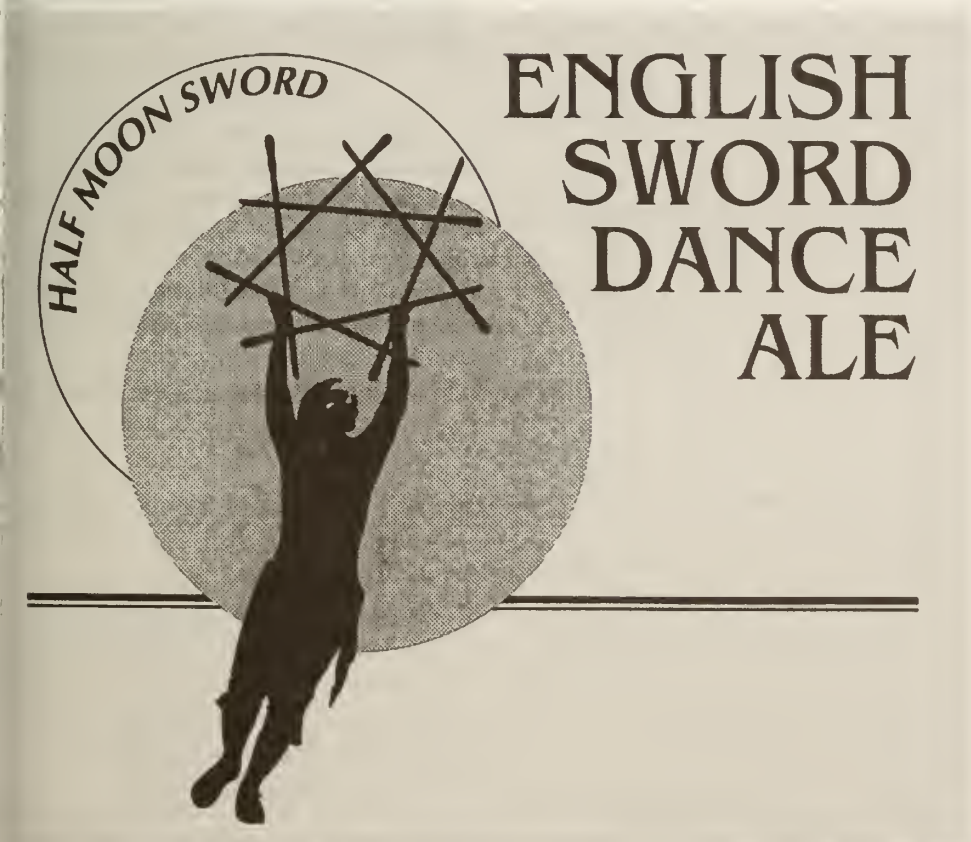
Multicultural Programs

The Search for the Giant Squid
Saturday, February 6, 1:30–3:00 p.m.

Join author Richard Ellis as he discusses his latest book, *The Search for the Giant Squid.* No squid is as large or mysterious as the giant squid. Ellis will examine the biology and mythology of this enigmatic sea creature. The book will be available for purchase and signing. Location: Kaufmann Theater. Free.

14th Annual New York Sword Dance Festival
Saturday, February 13, 1:30 & 3:00 p.m.

The festival will feature a dozen sword-dance troupes from around the country. Long-sword dancing, Molly dancing, and dances dating from the fifteenth century are among the performance highlights. Location: Kaufmann Theater. Free.



14th Annual New York Sword Dance Festival

AMNH/Exhibitions 1999

Computer rending of HIV, the virus that is associated with Aids.

Aids As Global Pandemic: Building Bridges Panel Discussions
Saturday, March 20

Local and international panelists will discuss the Aids pandemic from a global perspective. Location: Kaufmann Theater. Free.

Morning Session: Global Issues
10:30 a.m.-1:00 p.m.

Topics for the morning session include: "Access to Treatment and Information: Trends in the Global Pandemic (in Sub-Saharan Africa)," "The Search for a Vaccine," "People Living with AIDS Involvement in Advocacy and Worldwide Education," and "Reaching Populations at Risk in Cuba."

Afternoon Session: The Global As Local
2:00 p.m.-4:30 p.m.

Topics for the afternoon session include: "The History of the HIV Epidemic in New York City," "Working with African Immigrant and Refugee Populations in New York City: Emerging Strains of HIV in Asian and African Populations," "An Overview of the HIV/AIDS Epidemic in the U.S." and "Access to Treatment and Information for Native Americans"

Evening Address
7:00-8:30 p.m.

Topic for the lecture is: "Variant Strains of HIV: Research and Treatment Issues"

program listings

Hayden Planetarium Lectures and Courses

The Winds of Other Worlds
Monday, February 1, 7:30 p.m.

Lecture by Jeff Goldstein of the Challenger Center Organization. Program code: HP105L. Fee: $8.

Archeoastronomy
Tuesday, February 2, 6:30–8:40 p.m.

John Beatty will discuss the role of the heavens as it has been interpreted by various anthropologists. This course examines the growing human awareness of the sun, moon, and stars and their impact on Earth starting from prehistoric times. The class runs six sessions through March 9. Program code: HP20. Fee: $70.

Why There Is Life in the Universe: A Mathematician's Perspective
Monday, February 8, 7:30 p.m.

Join Amir Aczel as he outlines the case for intelligent life beyond the planet Earth.

Debra Gross Aczel

Amir Aczel

Aczel, author of the best selling book *Fermat's Last Theorem* is a professor of statistics at Bentley College. His latest book, *Probability One: Why There Must Be Intelligent Life in the Universe*, will be available for purchase and signing. Location: Kaufmann Theater. Program code: HP114L. Fee: $8.

The Elegant Universe: Superstrings, Hidden Dimensions and the Quest for the Ultimate Theory
Monday, March 1, 7:30 p.m.

Today, physicists and mathematicians throughout the world are racing to understand superstring theory, one of the most ambitious theories ever proposed. Superstring theory is the key to the Unified Field Theory which eluded Einstein for more than 30 years.

It proclaims that everything in the universe, from the frantic dance of subatomic quarks to the majestic swirl of heavenly galaxies, reflects one grand physical principle and arises from one single entity—tiny vibrating loops of energy, a billionth of a billionth the size of an atom. Through this simple yet powerful unified vision, superstring theory has already revolutionized our understanding of space, time, and matter.

Join Brian Greene, leading string theorist and professor at Columbia University on a fascinating scientific odyssey. In a refreshingly clear way which presumes no background in physics, he describes and visually illustrates these advances in the search for a theory of everything. Greene's book *The Elegant Universe* will be available for signing after the lecture. Location: Kaufmann Theater. Program code: HP115L. Fee for the lecture is $8.

Don Deitch

Briane Greene

The Universe in a Box: Supercomputer Simulations Tackle Problems in Astrophysics
Monday, March 29, 7:30 p.m.

Adam Frank, University of Rochester. Program code: HP106L. Fee: $8.

Hayden Planetarium Courses for Children

Stars in my Eyes
Sunday, February 28, 2:00–4:00 p.m.

Young science enthusiasts are introduced to the basic concepts of astronomy, including the planets, and constellations. Each class will include hands-on activities and a project to take home. The class will run for four sessions, through March 21. Instructor: Francine Jackson. Ages 6 to 9. Program code: HP42. Fee: $60 (materials fee included).

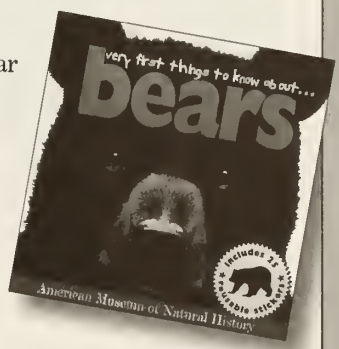
Kids' Stuff

A Fun Page for the Naturally Curious from Workman Publishing

BEARS, BEARS, EVERYWHERE

They live all over the world, in all sorts of environments. They can be black, brown, white, or multicolored. Their diets may consist of seals, bamboo, rodents, grass, salmon, honey, bugs, berries—or a combination of these. How much do you really know about bears? To test your bear savvy, match each name in the left-hand column with the statement in the right-hand column that correctly completes the sentence. Look below to check your score.

1. Sun Bears	a. return to the same rivers every year to catch salmon.
2. Spectacled Bears	b. are also known as moon bears.
3. Polar Bears	c. are the smallest of all bears.
4. Brown Bears	d. prefer to eat ants and termites.
5. Panda Bears	e. are the best swimmers of all bears.
6. Asian Black Bears	f. like the brown bear, live in North America.
7. American Black Bears	g. prefer to eat bamboo.

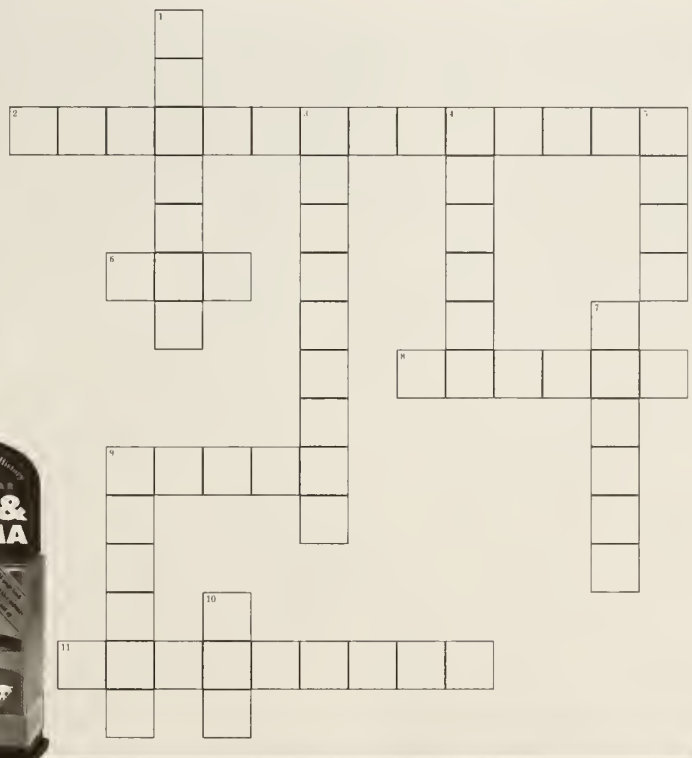


Answers: 1-c; 2-h; 3-e; 4-a; 5-g; 6-b; 7-f; 8-d.

POLAR BEAR CROSSWORD

Read the clues and choose the correct word from the list. Write it in the cross-word puzzle.

ARCTIC
TUNDRA
SEAL
PUFFIN
SNOWSHOE
IGLOO
CUB
URSUS MARITIMUS
DEN
WALRUS
ARCTIC FOX



Across

2. The scientific name for polar bear, meaning "sea bear."
6. Where a mother polar bear gives birth to her cubs.
8. This long-tusked Arctic animal likes to eat clams.
9. A seal's breathing hole.
11. The Greenland Inuit name for polar bear, meaning "the great wanderer."

DOWN

1. The four-inch layer of fat that keeps a polar bear warm.
3. These small animals sometimes eat a polar bear's leftovers.
4. A cold, windy plain where no trees can grow.
5. A polar bear's favorite food.
7. A small black-and-white Arctic bird with a colorful beak.
9. The vast region of snow and ice around the North Pole.
10. A young polar bear.

VERY FIRST THINGS TO KNOW ABOUT BEARS and POLAR BEAR BOOK & DIORAMA sets are available at the Museum bookstore and shops as well as at bookstores throughout the country.

a bear distinction

Despite the differences between bears, there are several characteristics that are common to all of them. Do you know what these characteristics are? Next to each sentence below, write "Y" if it applies to all bears and "N" if it only applies to certain types of bears. Then look below to check your score.

1. They are mammals. ___
2. They have five toes and five sharp claws on each foot. ___
3. They have an excellent sense of smell. ___
4. They have furry-bottomed feet. ___
5. They have a keen sense of hearing. ___
6. They climb trees to find honey. ___
7. They live alone for most of their lives. ___
8. They live in the forest. ___

Answers: 1-Y; 2-Y; 3-Y; 4-N; 5-Y; 6-N; 7-Y; 8-N.

© 1999 Workman Publishing Company, Inc

museum notes

Dinosaur Eggs from Patagonia

Museum scientists have made an extrodinary find of rare dinosaur embryos while on an expedition in Patagonia.

These recently discovered specimens represent a number of scientific breakthroughs. They are the first dinosaur embryos to show fossilized skin and the first known embryos of the giant plant-eating dinosaurs called sauropods. They are also the first of their kind found in the Southern Hemisphere.

"There are only a handful of dinosaur species for which embryonic remains have been found, and most of these are known by maybe one specimen. When we started finding more and more we knew immediately that this was unique," says AMNH paleontologist Luis Chiappe.

Dinosaur eggshells were strewn across this rich site located in the Patagonian badlands of Argentina, near Auca Mahuida. The research team named the new site Auca Mahuevo for its abundance of eggs. *Huevos* in Spanish means "eggs".

If the tiny embryos from Auca Mahuevo had hatched, the baby dinosaurs would have started life a mere fifteen inches long and grown to an adult size approaching forty-five feet. The fossil skin reveals a scaly surface, much like the skin of a modern-day lizard.

It is not possible to determine precisely which kind of sauropod dinosaurs laid the eggs, but the discovery of tiny teeth in them led researchers to believe they were sauropods known as titanosaurs. The remains of these dinosaurs are common in this area. The nesting site dates from the late Cretaceous and is approximately 70 to 90 million years old.

Why Auca Mahuevo has yielded two o the rarest of all types of fossils—fragile embryonic bones and skin casts—is one of the mysteries about the site that the team hopes to answe

The coleaders of the expedition are Luis M. Chiappe; Rodolfo A. Coria, director, Museo Municipal Carmen Funes; and Lowell Dingus, research associate, AMNH, and president, InfoQuest Foundation.

Fossils from their expedition are on display in the Miriam and Ira D. Wallach Orientation Center on the 4t floor.

L. Meeker/AMNH

Detail of fossilized skin of a sauropod dinosaur embryo discovered in Argentina by a joint AMNH/Museo Municipal Carmen Funes expedition.

Members' Birthday Parties

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.

Parties are held on Friday, Saturday, and Sunday, and last for two hours. Each party includes a hall tour, a demonstration of relevant artifacts, arts and crafts projects, games, story-telling, 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.

Above: Detail of the interior of a dinosaur egg.

Back cover photo: The Endurance! the Shackleton's Legendary Antarctic Expedition by Caroline Alexander.

INTRODUCE YOUR FAMILY TO A WORLD OF NATURAL HISTORY WITH DISCOVERY TOURS

GALÁPAGOS FAMILY ADVENTURE: ABOARD THE M.V. SANTA CRUZ
June 26 – July 6, 1999
Estimated at $3,660 to $4,480

ALASKA FAMILY ADVENTURE ABOARD THE WILDERNESS ADVENTURER
July 2 – 11, 1999
$1,995 – $4,425

FAMILY MEDITERRANEAN VOYAGE ABOARD THE *CLELIA II*
July 3 – 13, 1999
$1,995 – $8,995

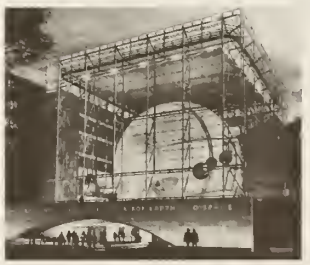
RENAISSANCE TUSCANY: A FAMILY TOUR
July 23 – August 3, 1999
Estimated at $4,180

A SUMMER FAMILY SAFARI TO KENYA AND TANZANIA
August 14 – 28, 1999
Price TBA

For a complete listing of all Discovery Tours please call:
800-462-8687 or (212)769-5700
American Museum of Natural History/Discovery Tours
Central Park West at 79th Street, New York, NY 10024

PROVIDE FOR YOUR RETIREMENT

AND HELP THE AMERICAN MUSEUM OF NATURAL HISTORY... MOVE FORWARD IN THE NEW MILLENNIUM



The new Frederick Phineas and Sandra Priest Rose Center for Earth and Space, scheduled to open on December 31, 1999

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 _____

City _____ State _____ Zip _____

Phone: (Home): _____ (Office): _____

Your reply is confidential and implies no obligation.

Museum Hours

Exhibition Halls

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

The Museum Library

Tues. - Fri.	11:00 a.m. - 4:00 p.m.

Museum Dining

Diner 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.

Natural Science Center

There are many wild places in the New York area, and the Center features these habitats' 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.

The Museum Shop

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

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.

Central Reservations Coupo

Program Name/Date # Members

_____

_____

_____

Total $ _____

Mr./Mrs./Miss/Ms. _____

Address _____

City _____ State _____ Zip _____

Telephone (Day) _____ (Evening) _____

Membership No. _____

❑ Check ❑ Am.Ex. ❑ Visa ❑ Master Card

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 above 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.

Rotunda
AM. MUS. NAT. HIST. LIBRARY
Received on: 02-24-99

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 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.

American Museum of Natural History

Membership Department
Central Park West at 79th Street
New York, New York 10024-5192

Coming Soon! ***Endurance: Shackleton's Legendary Antarctic Expedition***

N5
4
3
h 1999

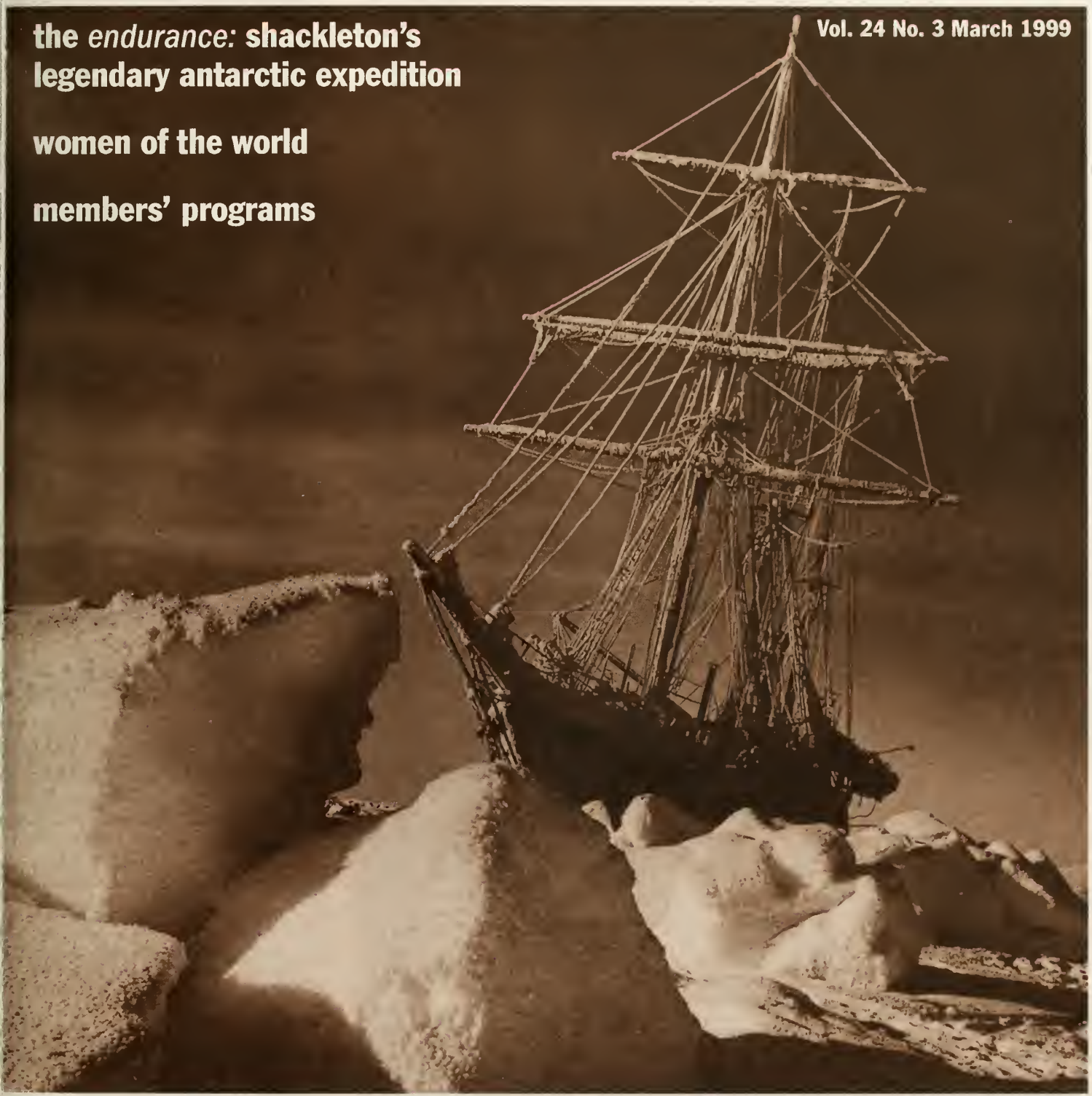
rotunda

Vol. 24 No. 3 March 1999

the *endurance:* shackleton's legendary antarctic expedition

women of the world

members' programs



American Museum of Natural History Members' Newsletter

the endurance

Ernest Shackleton's dramatic 1914 expedition to Antarctica is brought to life in a new exhibit opening next month, *The* Endurance*: Shackleton's Legendary Antarctic Expedition.*

Through newly available photographs, original artifacts, interactive computer displays, and videos, visitors will be transported to the age of exploration and experience the challenges of Antarctic survival.

The expedition ship's name, *Endurance*, was taken from Shackleton's family motto but it also signifies the fortitude of his character through this long adventure.

One day's sail away from Antarctica, the Endurance was crushed by the ice and destroyed. The crew survived as castaways on the dangerously shifting ice for months until they were able to reach the safety of land—Elephant Island. From there, Shackleton and five of his men sailed to the nearest inhabited area, South Georgia Island, to look for help—not a simple challenge, considering that they had to face sixty-foot waves in one of the world's most difficult oceans in an open, twenty-two-foot-long lifeboat.

Travelling on the *Endurance* with scientists and crew was the official expedition photographer, Frank Hurley. This is the most comprehensive exhibition of Hurley's images from the voyage ever presented. On display will be over 150 astonishing photographs printed from the original negatives and Hurley's salvaged album of prints. Ten rare, early color-images (called Pagets) can also be seen.

The prints include such subjects as the men's first encounter with the ice, shipboard life, the destruction of the ship, the journey to Elephant Island, the launching of the lifeboat, and the rescue.

In addition to still photography, Hurley also took film footage that was recently restored. The section of the exhibition describing the destruction of the *Endurance* is highlighted by Hurley's original film.

Hurley's photographs are accompanied by explanatory wall text, and artifacts from the expedition are woven throughout the exhibit. A model of the

Frank Hurley © Royal Geographical Society

The *Endurance* under full sail, January 1915

Frank Hurley © Scott Polar Research Institute

Sir Ernest Shackleton, February 1915

Endurance will be on display, togeth with the actual lifeboat, the *James Caird*, and portraits of twenty of the crewmen.

In a section devoted to navigation, visitors experience the challenge of sailing a small, open boat 800 miles toward a tiny island in the middle of the ocean. The only tools available to guide the ship's navigator, Frank Worsley, were a sextant, some charts an unreliable chronometer, and a few sightings of the sun.

Standing before the *James Caird*—backed by large screens on which images of the rocking ocean are projected—visitors can try Worsley's navigation methods with the aid of a computer program, setting their own course for South Georgia Island from Elephant Island camp.

The navigation simulation uses an interactive version of a sextant, the device used by sailors to ascertain longitude and latitude. Visitors use it to "take a sight" of the sun. Computers display the course the lifeboat would take with each sightin compare it with Shackleton's actual course, and provide helpful hints. Th experience underscores the extraordinary skill of Shackleton and

Sir Ernest Shackleton's dramatic 1914 expedition to Antarctica is brought to life in a new exhibit opening next month, "The *Endurance*: Shackleton's Legendary Antarctic Expedition."

is crew and the terrible odds they ced. The actual sextant used will also e on display in the exhibition.

he particular traits of sea ice are also rucial in understanding what appened to the *Endurance*. Once

Frank Hurley © Royal Geographical Society

The *Endurance* at the end, October 1915

stuck in the frozen waters, the *Endurance* drifted with the ice away from land. The crew waited for warm weather to melt the ice, but melting ice floes can shift greatly and push against one another. This mounting pressure from the shifting ice eventually destroyed the ship. A large etched-glass installation and a video describe how the ice affected the ship.

The scientific nature of ice is also explored.

Curators for the exhibit are author Caroline Alexander and Ross MacPhee, chairman of the museum's department of mammalogy.

The Shackleton exhibition is made possible by a gift from Mr. and Mrs. Joseph F. Cullman 3rd. The exhibit opens April 10th.

Cover photo: The *Endurance* 1915 "The Return of the *Sun*" by Frank Hurley© Royal Geographical Society

rotunda

ISSN 0194-6110

Vol. 24, No. 3, March 1999

Anne Washington/John Davey, Co-Editors
Michel DeMatteis, Copy Editor
Peggy Conversano, Designer
Rosemary Caulk, Director of Membership

Rotunda is published monthly, except for a combined issue in July/August, by the Membership Office of the American Museum of Natural History, Central Park West @ 79th Street, New York, N.Y. 10024-5192. Telephone: (212) 769-5606. Museum membership of $45 per year and up includes a subscription to *Rotunda*. © 1999 American Museum of Natural History. Periodical postage paid at New York, N.Y., and at additional mailing offices. Postmaster: Please send address changes to *Rotunda*, Membership Office, AMNH, at the above address. Printed in the USA.

events & exhibitions

Women of the World: Diverse Perspectives

In conjunction with International Women's History Month, March programs celebrate the work and contributions of women from diverse backgrounds. Unless otherwise noted, all programs will be held in the Leonhardt People Center and are free.

Saturday & Sunday, March 6 & 7

Video: Baby, It's You
1:00 p.m.
Award-winning filmmaker Anne Makepeace documents her intimate journey in trying to conceive a child through intensive fertility procedures. 1998, 56 min.

Breast Cancer and Women's Health
2:00 & 3:30 p.m.
Michele Brasch, ANP, Wellness Specialist at the Memorial Sloan-Kettering Cancer Center Prevention and Screening Program, gives an overview of breast cancer.

Ladies of Song from the Ellington Legacy
2:30 & 4:00 p.m.
During this centennial celebration of Duke Ellington, vocalist/composer Lenora Zenzalai Helm celebrates renowned female vocalists who contributed to the Ellington legacy. Accompanying Ms. Helm will be The Zenzalai Project with Miriam Sullivan on bass, Orrin Evans on piano, and Nasheet Waits on drums.

Bill Wylie

Lenora Zenzalai Helm

Saturday & Sunday, March 13 & 14

Video: Hot Flash on Menopause
1:00 p.m.
Working among the Mayans in the Yucatan, a medical anthropologist finds that Mayan women do not experience hot flashes and suffer from neither osteoporosis nor heart disease. The video offers a new look at menopause, including a discussion of the pros and cons of hormone replace-ment therapy. Produced by the CBC, 1999, 47 min.

Florence Alfano McEwin

***Block*, oils, canvas and wood by Florence Alfano McEwin.**

Perspectives
2:00 & 3:30 p.m.
Showing slides and sketches from a future traveling exhibit, *Perspectives*, Brazilian visual artist/teacher Liza Papi discusses the international women artists, including herself, from the exhibit.

Fragments
2:30 & 4:00 p.m.
A collage of images of struggle, survival, and hope are presented by *en la brega dance company*. Using lyrical, theatrical, and very athletic movements, the work ventures into the worlds of women's creativity, imagination, and spiritual lives.

Saturday & Sunday, March 20 & 21

Video: A Life Without Fear
1:00 p.m.
This docudrama portrays the struggles of an immigrant South Asian woman as she deals with violence in her life. The video ends poignantly with survivors who relay personal experiences in which they overcame abuse and began a new life. Produced by Sakhi, an advocacy organization for survivors of violence. 1994, 23 min.

Immigrant Women's Experiences
2:00 & 3:30 p.m.
Members of Sakhi discuss the challenges faced by immigrant battered women.

NARI (Woman)
2:30 & 4:00 p.m.
Bharata Natyam dancer Swati Bhise presents dances about the goddess Durga, who symbolizes mother, temptress, warrior, homemaker, and eternal defender of society.

Infectious Diseases

In conjunction with the special exhibition, *Epidemic! The World of Infectious Disease*, this series explores common and not-so-common infectious diseases. All lectures are Tuesdays, 7:00-8:30 p.m. Program code: ED99204L Fee: $30 ($27 members) for series; $12 ($10 members) for single lectures.

How Infectious Disease Works
March 2

ıfectious Disease: The Past nd the Future
Iarch 9
he Access Deficit: Drug Availability ı Developing Countries
Iarch 16
ıfectious Disease and War
Iarch 23

lature and History of he Antarctic

'his series of six programs is offered ı conjunction with the special xhibition *The* Endurance*: 'hackleton's Legendary Antarctic Expedition*. The programs cover a full ange of topics in Antarctic history, nvironment, and adventure. Program ode: ED99209L Fee: $40 ($36 ıembers) for series; $12 ($10 ıembers) for single lectures

hackleton: The Man and the Expedition
'riday, April 9, 7:00-8:30 p.m.
'aroline Alexander, guest curator or the special exhibition, discusses he Shackleton expedition and her ew book, *The* Endurance*: 'hackleton's Legendary Antarctic Expedition.*

outh Georgia Island
Ionday, April 12, 7:00-8:30 p.m.
Robert Burton, director of the South Georgia Island Whaling Museum and olar medalist, outlines the history of he island.

hackelton's *Endurance* Expedition f 1914- 1917
Tuesday, April 13, 7:00-8:30 p.m.
Using meteorologist Leonard D. A. Hussey's original lantern slides and cript, Geoffrey Selley, a Fellow of the Royal Geographical Society, presents lecture/performance of the *Endurance* adventure. He also lescribes the extraordinary story of ıow the original photographic plates urvived in the ice.

Antarctic Oasis
Friday, April 16, 7:00-8:30 p.m.
In this illustrated talk Pauline and Tim Carr discuss the planet's greatest concentration of seals, penguins, albatrosses, and other birds on the island of South Georgia. Their book, *Antarctic Oasis: Under the Spell of South Georgia*, will be available for purchase and signing.

The Antarctic Continent
Monday, April 19, 7:00-8:30 p.m.
An ice sheet covers the Antarctic continent. It averages approximately 2,500 meters thick and, at its deepest location, 4,700 meters thick. Colin Roesler, researcher at the Bigelow Laboratory for Ocean Sciences, explains the scientific characteristics and importance of this major geological feature.

Crossing of Antarctica
Saturday, May 1, 7:00-8:30 p.m.
On January 18, 1995, Norwegian polar explorer Borge Ousland completed the first unsupported solo crossing of the continent of Antarctica. In this talk, Ousland describes his historic journey.

The 69th Annual James Arthur Lecture

Wednesdsay, April 7, 6:00 p.m.
Terrence W. Deacon will deliver this year's James Arthur Lecture on: Proximate Mechanisms Underlying Human Brain Evolution. He has published extensively on comparative neuroanatomy of mammals and is currently focusing his research on cross-species transplantation. Deacon is associate professor of biological anthropology, Boston University, and research associate at the Harvard Medical School. Kaufman Theater. Free.

Colony of rockhopper penguins

members' programs

Expeditions

Reel in Fish, Facts and Fun

Saturday, May 1 9:00 am to 5:30 pm

Fish the waterways of New York while you learn about local marine life and environmental issues. Our own Sidney Horenstein, the Museum's coordinator of Environmental Programs, will be joined by scientists from the National Park Service, Gateway National Recreation Area, and the Science Museum of Long Island.

Learn about the environmental aspects of the area and about the fish and other organisms that we will catch and encounter. Our privately chartered ninety-foot supercruiser sails from Sheepshead Bay, Brooklyn, and will supply everything that you need to enjoy the day; rods, reels, and bait. Of course, if you have not fished before, the experts will give you instruction.

Our planned route is to Jamaica Bay for fishing and on to the Ambrose Lighthouse for educational exploration. A special microscope on board will enable video projection of fascinating microscopic animals. This special members-only expedition promises to be a fun-filled educational adventure. A detailed itinerary will be mailed to registered participants in advance.

Optional roundtrip bus service is available from the Museum to Sheepshead Bay. Program Code: MM5-1A Fee: $67, including round-trip bus transportation from the Museum to Sheepshead Bay. Program Code: MM5-1B Fee: $55, provide your own transportation and meet us at Pier 6, Sheepshead Bay.

Behind-the-Scenes in Invertebrates

Wednesday, April 21, 6:00 and 7:30 pm
Thursday, April 22, 6:00 and 7:30 pm

Begun in 1869, the department of invertebrates' collections include the very first specimens the Museum ever received. The subject matter of the department en-compasses the most diverse organisms, including every phylum in the animal kingdom. From mollusks to echinoderms, crustaceans, and bryozoa, the Museum's collection of over eight million specimens are augmented continuously through donations and fieldwork.

Focusing on recent invertebrates, Museum staff will introduce you to th curatorial and research activities taking place. From rare shells of mollusks to the unusual deep sea isopod, giant squid, and three-foot lobster, you will learn about some fascinating specimens and explore storage areas. Program Code: MM4-2 April 21 and MM4-3 April 22. Fee: $20 members only.

The Dorthy B. VIII; the Membership Department plans a fishing expedition from Sheepshead Bay.

Hall Tours

And the Winner is...

Friday, April 16, 6:30 p.m.

As all of Hollywood gathers for its annual awards gala, we too will gather to determine the museum's best actor, actress, costume, set design, and special effects. Join us as we stroll through the halls, collections, and dioramas and choose unofficial Museum Academy Awards. Our judge and host for the program will be "Oscar-Bob" Campanile. We promise very short acceptance speeches! Program code: MM4-4; members only. Free.

ed-eyed tree frog

on't Forget!

REVIOUSLY LISTED PROGRAMS

n the Track of nknown Mammals in ildest New Guinea

ednesday, March 10, 7:00 pm

n this slide-illustrated lecture, Tim lannery, chairman of the department mammalogy at the Australian luseum, will talk about his discovery more than twenty new species of ammals. His new book, *Throwim ay Leg*, will be available for urchase and signing. Location: aufmann Theater. Program code: M3-5. Fee: $8 members/$10 non-embers.

You are cordially invited to attend a Members' Preview Party

The Endurance

Shackleton's Legendary Antarctic Expedition

Friday, April 9
5:30–8:30 p.m.
Cash bar available
Please present your membership card for admission

Geology of the Revolutionary War in Metropolitan New York

Tuesday, March 16, 7:00 pm

Discover how closely the battles and troop movements of the Revolutionary War were governed by the geology of the New York area. You will learn about the Revolutionary War and military maneuvers of the day, as well as about metropolitan New York's complex geology. Sidney Horenstein presents this fascinating slide-illustrated lecture. Location: Linder Theater. Program code: MM3-6. Fee: $8 members/$10 non-members.

Casting Paper Butterflies

Sunday, March 7, 1:00 and 3:00 pm

This hour-long workshop will give you and your child the opportunity to create colorful paper butterflies by casting prepared molds with nontoxic materials and recycled paper.

Pamela Popeson, artist and former director of the Museum's Fossil Reproduction Department, will teach the class. Children must be accompanied by an adult. Location: Edith C. Blum Classroom. Program code: MM3-4. The fee for the workshop is $42 for one adult and child; members only.

The Battery and Bowling Green during the Revolution.

King of the Wild Frontier

Saturday, March 6, 6:30 p.m.

Join us to celebrate the myth and folklore of the American frontier, interwoven with the legendary life of Davy Crockett.

Using the North American Mammal Hall dioramas as a background, we will trace Crockett's life while discussing the natural environment of his times. This day marks the anniversary of Crockett's death in 1836 while defending the Alamo. Robert "Davy Docent" Campanile will be your frontier guide. Program code: MM3-3; members only. Free.

march

Current Exhibits

Papua New Guinea: Art and Spirits
Photographs from the Middle Sepik Rive
Akeley Gallery through March 28
Primates: The Jean Baulu Collection of Antique Prints
Library Gallery through April 25
Dinosaur Eggs from Patagonia
Orientation Center, 4th Floor
through May 1.

Monday 1
The Elegant Universe: Superstrings, Hidden Dimensions and the Quest for the Ultimate Theory
Lecture By Briane Greene
Kaufmann Theater, 7:30 p.m.

Tuesday 2
Infectious Diseases: How Infectious Disease Works
Lecture by Robert DeSalle
7:00-8:30 p.m.

Wednesday 3
Microbes in the Movies
Series starts with *The Satan Bug*
Kaufman Theatre, 6:30-9:00 p.m.
Program Code: STD 1

Thursday 4

Friday 5
Art and Physics: Parallel Visions
Space-Time and Mass Energy, Weightless Forms, and Gravitational Forces
Kaufman Theatre, 7:00-8:30 p.m.
Program Code: ED99201L

Saturday 6
Ebola in our Backyard?
The Plague Monkeys documentary
Kaufmann Theater; 4:30-6:00 p.m.

Sunday 7

Monday 8
Historic Geology: The Precambrian Era
Lecture by Sidney Horenstein
Kaufmann Theater; 7:00-8:30 p.m.
Program Code: ED99205L

Tuesday 9

Wednesday 10
An Affair with Africa
Lecture by Alzada Carlisle Kistne
Kaufmann Theater; 7:00-8:30 p.m
Program Code: ED99206L

Thursday 11
In Their Own Voices
Breathing Lessons, 1996 Academy Award winning documentary
Kaufmann Theater, 6:30-8:30 p.m.

Friday 12

Saturday 13
Women of the World: Diverse Perspectives
Video: Hot Flash on Menopause
Leonhardt People Center, 1:00 p.m

Sunday 14

Monday 15
Historic Geology: The Paleozoic
Lecture by Sidney Horenstein
Kaufmann Theater; 7:00-8:30 p.m.
Program Code: ED99205L

Tuesday 16
Geology of the Revolutionary Wa Metropolitan New York
Linder Theater, 7:00 p.m.

Wednesday **17**

Thursday **18** **Microbes in the Movies**
Syphilis at the Cinema
U.S. Public Health Service Films of World War II
Kaufmann Theater, 6:30-8:30 p.m.

Friday **19**

Saturday **20** **Women of the World: Diverse Perspectives**
NARI (Woman)
Indian dance performance
Leonhardt People Center, 2:30 & 4:00 p.m

Sunday **21**

Monday **22** **Historic Geology: The Mesozoic Era**
Lecture by Sidney Horenstein
Kaufmann Theater; 7:00-8:30 p.m.
Program Code: ED99205L

Tuesday **23** **Infectious Diseases: Infectious Disease and War**
7:00-8:30 p.m.

Wednesday **24**

Thursday **25** **Earthwatch at the Museum**
Carnivores of Madagascar
Kaufmann Theater; 7:00-8:30 p.m.

Friday **26** **The Nature of Religion: Atheism, Science and the Future of Religion**
7:00-8:30 p.m.
Program Code: ED99307X

Saturday **27**

Sunday **28**

Monday **29** **The Universe in a Box: Supercomputer Simulations**
7:30 p.m.

Tuesday **30** **Spring Birdwalks in Central Park**
7:00-9:00 a.m.
Program Code: ED99300X

Wednesday **31**

Phone Numbers at Your Fingertips

Museum Information	(212) 769-5100
Membership Office	(212) 769-5606
Planetarium Information	(212) 769-5900
Members' Birthday Parties	(212) 769-5154
Education Department	(212) 769-5304
Planned Giving Office	(212) 769-5119
Discovery Tours	(212) 769-5700
*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
Website	http://www.amnh.org

Upcoming Exhibits

Microbes in the Movies
Runs March 3 through 25

Endurance: Shackleton's Legendary Antarctic Expedition
Opening April 10th

For program reservations, please call (212) 769-5200

program listings

Department of Education Lectures

Art and Physics: Parallel Visions

William R. Dorsey presents a lecture series on how artistic movements throughout history may have influenced theoretical models in physics. Program code: ED99201L. Individual lectures are $12; $10 members. All talks are Fridays from 7:00–8:30 p.m.

Space-Time and Mass Energy, Weightless Forms, and Gravitational Forces
Friday, March 5
Curved Space-Time, Music, Art, and Physics
Friday, March 12

An Affair with Africa

Wednesday, March 10, 7:00-8:30 p.m.

Alzada Carlisle Kistner shares her thoughts and experiences from three decades of science discovery in Africa, the subject of her book, *An Affair with Africa: Expeditions and Adventures Across a Continent*. Ms. Kistner is associate editor of the journal *Sociobiology*. The book will be available for purchase and signing. Program code: ED99206L Fee: $12; $10 members.

Earthwatch at the Museum

In a multi-part lecture series, Earthwatch Institute scientists will present slide-illustrated lectures on their research. The Earthwatch Institute is an international nonprofit organization that promotes sustainable conservation of natural resources and cultural heritage by creating partnerships among scientists, educators, and the general public. The series runs Thursday nights 7:00-8:30 p.m. Program code: ED99202L. Fee: $35; $31.50 members. $12; $10 members for single lectures.

Carnivores of Madagascar
Thursday, March 25, 7:00-8:30 p.m.

The island of Madagascar is widely known for its unique species. Seven of the eight carnivores that stalk Madagascar's forests—long and lanky relatives of civets, genets, and mongoose—are found nowhere else in the world.

In this lecture Luke Dollar, founder of the Carnivore Conservation and Research Trust and a Ph.D. student at the University of Tennessee, discusses the exciting discoveries his team has made about these enigmatic predators. Their research has helped raise awareness of these highly threatened flagship species.

Hopi Pot

This lecture is part of the Earthwatch Institute series. Program code: ED99202L. Fee: $12; $10 members.

Hopi Ancestors
Thursday, April 29, 7:00- 8:30 p.m.

Charles Adams, curator of archaeology and director of the Homol'ovi Research Program at the Arizona State Museum, University of Arizona, looks at Hopi oral history from an archaeological perspective in his presentation of fifteen years of research on the ancient Hopi communities of the northern Southwest. These early American villages of stone and adobe, settled some 750 years ago, eventually grew to more than one thousand rooms. Today, seven of these large settlements remain along a twenty-mile stretch of the Little Colorado River near Winslow, Arizona. This lecture is part of the Earthwatch Institute series. Program code: ED99202L. $12; $10 members.

Wildflower Diversity in the Northeast

Five Mondays, March 8 to April 5, 2:30-4:00 p.m. or
Five Thursdays, March 11 to April 8, 7:00-8:30 p.m.

Among the natural wonders and delights of spring in the northeastern United States are the thousands of flowering plant species-exceeding the numbers of mammal, bird, reptile, amphibian, or fish species. This series of illustrated lectures examines the nature of this diversity and its importance in sustaining the web of life in environments ranging from seacoasts to mountain peaks. William

chiller, lecturer in botany in the epartment of Education, discusses iscoveries about forest, meadow, pine arren, and wetland flowers. Fee: $35 31.50 members) for series; $12 ($10 ıembers) for single lectures.

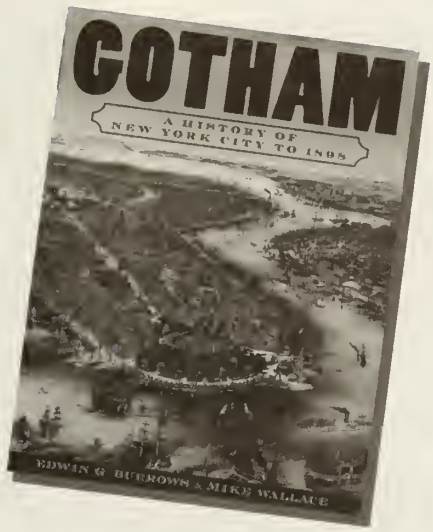
istorical Geology: The arth Through Time

our Mondays, starting March 8, 00-8:30 p.m.

his slide-illustrated series, ıpplemented with handouts and led y geologist Sidney Horenstein, the luseum's coordinator of ıvironmental programs, explores the story of the Earth from its origins me 4.5 million years ago to the resent time and speculates about its ıture. After discussion of some basic ıiding principles, topics considered e the changing patterns of ntinents through time; the formation mountains, and episodes of aciation, including the most recent och; and how fossils are used to etermine ancient environments and lp date rocks. These lectures are ased on exhibits at the Museum and ı the textbook, *Earth System istory*, by Steven M. Stanley (W.H. reeman Press) available in the luseum Book Store and at the first cture.

larch 8	*The Precambrian Era*
larch 15	*The Paleozoic Era*
larch 22	*The Mesozoic Era*
larch 29	*The Cenozoic Era*

rogram Code: ED99205L. Fee:$30 27 members) for series; $12 ($10 embers) for single lectures.



Gotham: A History of New York City to 1898

Wednesday, April 21, 7:00 - 8:30 p.m.

Mike Wallace, professor of History at John Jay College, City University of New York, discusses *Gotham*, the first volume in a serial history of New York City. The result of a twenty-year collaboration with Edwin G. Burrows, the book begins with the European explorers' reaction to the Lower Hudson Valley, a paradise of waist-high grasses, towering stands of walnut, maple, chestnut, and oak, and forests teeming with bears, wolves, raccoons, beavers, otters, and foxes. Today, it is the site of Broadway and Wall Street, the Empire State Building, and the Statue of Liberty, and the home of millions of people who have come from every corner of the nation and the globe. In *Gotham*, Burrows and Wallace have produced a monumental work of history, one that ranges from the Indian tribes that settled in and around the island of Manna-hata, to the consolidation of the five boroughs into Greater New York in 1898. The book will be available for purchase and signing. Program Code: ED99207L Fee: $12 ($10 members)

Hayden Planetarium Lectures

The Elegant Universe: Superstrings, Hidden Dimensions and the Quest for the Ultimate Theory

Monday, March 1, 7:30 p.m.

Today, physicists and mathematicians throughout the world are racing to understand superstring theory, one of the most ambitious theories ever proposed. Superstring theory is the key to the Unified Field Theory which eluded Einstein for more than 30 years.

It proclaims that everything in the universe, from the frantic dance of subatomic quarks to the majestic swirl of heavenly galaxies, reflects one grand physical principle and arises from one single entity—tiny vibrating loops of energy, a billionth of a billionth the size of an atom.

Join Brian Greene, leading string theorist and professor at Columbia University, on a fascinating scientific odyssey. Greene's book *The Elegant Universe* will be available for signing after the lecture. Location: Kaufmann Theater. Program code: HP115L. Fee for the lecture is $8.

The Universe in a Box: Supercomputer Simulations Tackle Problems in Astrophysics

Monday, March 29, 7:30 p.m.

Adam Frank, University of Rochester. Program code: HP106L. Fee: $8.

program listings

Debra Gross Aczel

Chinese brush painting

Department of Education

Children's Workshops

Digging Up The Past

Sunday, April 11, 10:30 a.m.-1:30 p.m.

Discover how fossils are found and how they provide us with clues to the past. Excavate fossils from a "dig," visit fossil exhibits and dig-sites, and make your own fossils. Presented by Lisa Breslof, senior natural science instructor, Department of Education. Ages 9-10 Fee: $15. Program Code: ED99400C.

Microbe Marvels!

Sunday, April 11, 10:30 a.m.-1:30 p.m.

Microbes help us make bread, wine, and dried foods, and live on and inside our bodies. Some kinds of microbes cause diseases. Discover how to identify microbes and help solve the mystery of why we get sick. A tour of the exhibition *Epidemic! The World of Infectious Diseases* highlights body defenses and how we protect ourselves with antibiotics and vaccines. Visits to other halls show children how different cultures heal the sick. Presented by Michael Levy, cardiothoracic surgeon, North Shore University Hospital, New York; and Judith Levy, who has taught at the Carnegie Museum of Art. Ages 9-10 Fee: $15. Program Code: ED99402C.

Bonita's Nature Book

Sunday, April 18, 10:30 a.m.-1:30 p.m.

Explore nature through Museum exhibitions; create storyboards about urban animals and their habitats, and learn how to make original accordion books. Presented by Bonita Grandal, teacher and facilitator for New York State Project Wild. Ages 8-9 Fee: $15. Program Code: ED99401C.

A First Look At Chinese Brush Painting

Sunday, April 18, 10:30 a.m.-1:30 p.m.

Capture the spirit of nature with brush and ink. Explore trees, plants, and rocks in the Museum's landscape paintings while learning the basic techniques of Chinese calligraphy. Presented by Ross Lewis, a New York City artist and children's art educator. Ages 9-10 Fee: $15. Program Code: ED99403C.

Fun With Fossils

Sunday, April 18, 10:30 a.m.-1:30 p.m

Discover how woolly mammoth teeth provide clues to animal behavior. Children examine fossil reproductions and real tooth specimens to uncover eating and other behaviors. They will make a mammoth tooth reproduction and visit the dinosaur halls. Presented by Pamela Popeson, artist/educator and former director of the Fossil Reproduction Department. Ages 8-9 Fee: $15. Program Code: ED99404C. Children should bring a bag lunch for three-hour programs.

Hayden Planetarium Courses for Children

Adventures in Astronomy

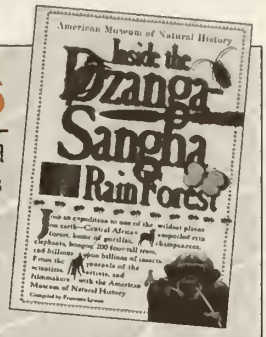
Saturday, April 17, 10a.m. - 12 noon

This introductory course for the whole family makes use of laboratories and astronomical equipment to explore the birth and death of stars, the origin of th universe, the search for extraterrestria life, and the current night sky. The class will run for seven weeks through June 5th. Lecturer: Craig Small. Ages 10 an up. Fee: $85. Program Code: HP14

Kids' Stuff

A Fun Page for the Naturally Curious from Workman Publishing

All About Habitats



Although they make up less than 7 percent of the earth's land surface, tropical rain forests are home to half the world's known plant and animal species, thanks to their year-round sunlight, warmth, and wetness. Test your rain forest knowledge by circling true or false for each of the sentences below. Then check your score with the answers at the bottom of this page.

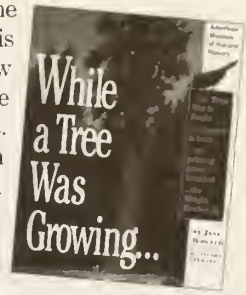
1. All tropical rain forests straddle the earth's equator.	**True**	**False**
2. No people live in the rainforest.	**True**	**False**
3. The *canopy* is the bottom layer of the rainforest.	**True**	**False**
4. Rain forests play a crucial role in the world's weather patterns.	**True**	**False**
5. Rain forests receive approximately 80 inches of rain every year.	**True**	**False**
6. The largest rain forest in the world is in Southeast Asia.	**True**	**False**
7. People are the biggest threat to the survival of rain forests.	**True**	**False**
8. Less than 1% of the sun's light ever reaches the rain forest floor.	**True**	**False**
9. Rain forest soil is very rich in nutrients.	**True**	**False**

From INSIDE THE DZANGA-SANGHA RAIN FOREST.

Answers: 1-true; 2-false; 3-false; 4-true; 5-true; 6-false; 7-true; 8-true; 9-false

Sierra Nevadas

California's Sierra Nevadas, home of giant sequoia trees, is another of the earth's many habitats. For some animals, the tree itself is a habitat! Listed below are 14 animals that live in the Sierra Nevadas. See how many you can find in the word search below. Look across, down, backward, and diagonally.



BLACK BEAR
CHICKAREE
COYOTE
GRAY WOLF
GRIZZLY BEAR
NUTHATCH
OREGON JUNKO
PINE MARTEN
SPOTTED OWL
STELLAR'S JAY
WESTERN ROBIN
WESTERN TANAGER
WOOD-BORING BEETLE
WOODPECKER

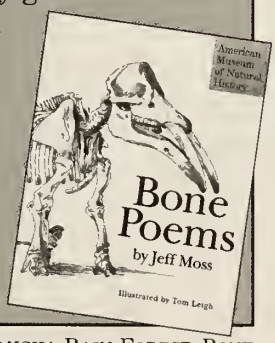
G	E	R	F	L	M	J	V	W	W	E	S	T	E	R	N	R	O	B	I	N	V
I	N	D	K	S	X	A	I	F	E	Y	G	O	A	M	P	L	N	H	F	W	Y
F	O	T	X	L	E	C	A	R	E	K	C	E	P	D	O	O	W	H	Z	Q	R
E	L	T	E	E	B	G	N	I	R	O	B	D	O	O	W	H	G	O	N	H	F
K	C	D	C	A	R	E	J	I	V	K	T	W	X	W	A	D	K	N	P	L	A
I	A	E	G	C	K	Y	V	T	C	Q	N	D	P	H	A	R	X	U	K	M	L
D	G	I	K	H	R	S	M	A	P	E	J	P	T	U	X	Z	Q	T	X	M	M
T	Y	G	R	I	Z	Z	L	Y	B	E	A	R	T	E	O	E	M	H	N	R	E
Q	S	A	E	C	F	B	M	X	S	T	E	L	L	E	R	S	J	A	Y	X	N
Z	L	B	Q	K	Z	S	X	A	E	R	M	N	H	I	E	F	O	T	H	C	E
B	O	W	X	A	V	R	P	E	B	D	R	Z	J	I	G	E	A	C	C	L	T
E	P	S	G	R	A	Y	W	O	L	F	F	E	H	A	O	Z	H	H	K	C	R
A	Y	R	E	E	K	A	X	Z	T	I	K	Q	Z	X	N	E	G	K	E	M	A
L	D	F	A	E	E	K	H	M	L	T	H	E	A	N	J	V	Z	M	E	J	M
I	P	R	M	X	N	P	M	L	H	N	E	D	E	U	U	T	B	T	X	N	E
H	O	X	L	H	A	E	F	E	H	E	N	D	R	S	N	X	O	C	D	E	N
D	V	C	A	J	E	H	D	Q	I	H	O	W	O	E	K	Y	L	M	X	H	I
W	R	E	G	A	N	A	T	N	R	E	T	S	E	W	O	V	T	Q	G	J	P
Y	T	A	D	U	X	L	Z	F	J	A	M	O	Q	C	L	C	H	E	D	C	R

From WHILE A TREE WAS GROWING... by Jane Bosveld

The Evolution of the Woolly Mammoth

In a snowstorm, a mammoth
un-woolly
Worried, "Now I'll catch cold
proba-bully!"
But in time this big worrier
Became a bit furrier
And eventually grew
woolly fully.

From
BONE POEMS
by Jeff Moss



INSIDE THE DZANGA-SANGHA RAIN FOREST, BONE POEMS and WHILE A TREE WAS GROWING... are available at the Museum bookstore and shops as well as at bookstores throughout the country.

© 1999 Workman Publishing Company, Inc.

museum notes

In 1914, on the same fateful day Germany declared war on Russia, Sir Ernest Shackleton set sail on the *Endurance* for Antarctic waters. The British had ordered a general mobilization, but First Lord of the Admiralty Winston Churchill turned down Shackleton's offer of his crew and ship for the war effort. "Proceed," cabled Churchill, and so on August 8, Shackleton and crew departed, ultimately to fight one of the great wars of human survival.

The high hopes for the expedition were brutally destroyed in October 1915, as the ice of Antarctica crushed the *Endurance* to splinters, and there begins the rescue Caroline Alexander records in her national bestseller, *The* Endurance*: Shackleton's Legendary Antarctic Expedition.*

Two years after their departure and a year after the wreck, Shackleton led his entire crew of 27 men to safety in the face of unspeakable deprivations, such as lack of food, water, warm clothing, shelter, and unholy conditions, such as impenetrable cold, storms, darkness, and unforgiving terrain. His tool was his great courage, leadership, and endurance.

For Shackleton, at 40 a veteran polar explorer, this trip to the Antarctic was, in his words "the last great Polar journey that can be made." Britain had not succeeded in reaching the South Pole. To trek across the Antarctic continent—that would be the British triumph.

To finance part of the trip, Shackleton sold the picture rights to the expedition and engaged Frank Hurley,

an Australian photographer who had successfully filmed another Antarctic expedition.

This book contains many previously unpublished photographs from Hurley's exceptional work documenting the voyage. These photographs were recently restored from negatives and from the original album of photos Hurley managed to print onboard before the shipwreck.

Hauling the *James Caird* lifeboat, which weighed as much as one ton, across the ice.

nly 120 of the negatives survived the xpedition. Shackleton and Hurley ere forced to choose the best when ey abandoned the *Endurance*, mashing over 400 glass plate egatives because they were too eavy to carry. Over the several onths following the wreck, Hurley ok additional photos with a simple ocket camera.

he drama of the book rests on lexander's weaving a narrative rough these haunting photographs. he narrative is built around the ew's memoirs and diaries, some not vailable previously. The men's ords testify to their determination nd despair and reveal their ersonalities and strengths. *ndurance* is available in the luseum bookstore for $29.95.

Frank Hurley © Royal Geographical Society

Members' Birthday Parties

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.

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.

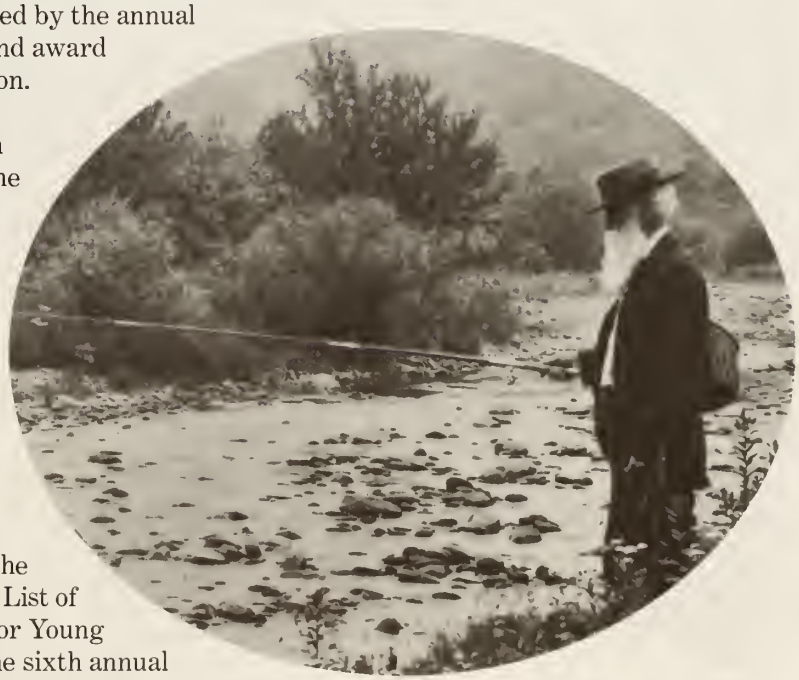
John Burroughs Association annual meeting

The John Burroughs Association will hold its annual association meeting Monday, April 5 from 10:30-11:45 a.m. It will be followed by the annual literary lunch and award ceremony at noon.

The Association will announce the awards for its seventy-second annual Literary Medal Award competition for exceptionally fine nature writing, the tenth annual competition for the John Burroughs List of Nature Books for Young Readers, and the sixth annual competition for An Outstanding Published Natural History Essay.

John Burroughs (1837-1921) popularized appreciation of the outdoors and is considered a pioneer in nature writing. For over forty years, he kept a journal noting the change of seasons and the life of the plants and animals around his home in the Catskill Mountains. These observations developed into over 25 volumes of essays and poems about his native region.

The John Burroughs Association, Inc., founded and headquartered at the Museum, presents programs and lectures. It preserves places associated with the life of the famous naturalist. Slabsides, the rustic cabin where Burroughs studied nature and wrote some of his famous essays, is preserved by the association and is open to the public. The museum's permanent exhibit honoring Burroughs life and work can be found near the Kaufmann theatre.



John Burroughs

Museum Hours

Exhibition Halls

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

The Museum Library

Tues. - Fri.	11:00 a.m. - 4:00 p.m.

Museum Dining

Diner 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.

Natural Science Center

There are many wild places in the New York area, and the Center features these habitats' 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.

The Museum Shop

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

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.

Central Reservations Cou

Program Name/Date # Members

Rotunda
AM. MUS. NAT. HIST. LIBRARY
Received on: 03-08-99

Mr./Mrs./Miss/Ms.

Address

City State Zip

Telephone (Day) (Evening)

Membership No.

❑ Check ❑ Am.Ex. ❑ Visa ❑ Master Card

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 above 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.

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 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.

American Museum of Natural History

Membership Department
Central Park West at 79th Street
New York, New York 10024-5192

Please join us for the Members' Preview Party of The *Endurance*, Friday, April 9th

rotunda

wildlife photography

pluto problems

members' programs

H70
U52
5
. 24
o. 4
pr 1999

Vol. 24 No. 4 April 1999

American Museum of Natural History Members' Newsletter

wildlife photographer of the year

The sight of two hares in the middle of an acrobatic sparring session is so rare among the rapidly declining species that it took decades for the German

Raoul Slates

photographer responsible for this prize-winning image, shown on this month's cover, to capture the mating ritual on film.

"I have been photographing hares for twenty years, but, sadly, such opportunities are now as rare as the hare population in Germany," says Manfred Danegger.

He spent long periods at a number of mating sites along the edge of Lake Constance in southern Germany until he finally caught the courtship behavior of the shy hares. The image shows the female hare, who is not yet ready to mate, rebuffing the advances of the male.

The image won Danegger the title of Wildlife Photographer of the Year, and is only one of many stunning wildlife photographs to be seen on display in an exhibition at the Museum. Originally sponosred by BBC Wildlife Magazine and Britain's Natural History Museum, this presentation culls images from over 20,000 entries submitted by professional and amateur photographers from sixty-three countries, and is stopping at the Museum as part of a ten-country international tour.

Jamie Thom

John Mielcarek

The winning images, such as the shot, below, left, from South Africa of the red-billed oxpecker foraging for parasites on a zebra's tail, were picked based on wildlife knowledge, aesthetic appreciation, and photographic knowledge and skill.

The charming image of the bullfrog, above, sunning himself contentedly on a patch of water lillies was the runner-up in the Animal Portrait category and required American photographer John Mielcarek to stand up to his neck in the pond to get just the right shot.

See these and many more wonderful wildlife photographs in the exhibit, "Wildlife Photographer of the Year." It will be on view in the Akeley Gallery from April 17 through September 12, 1999.

The images in this exhibition are the winning entries taken from the Wildlife Photographer of the Year Competition organised by the BBC Wildlife Magazine and The Natural History Museum, London, and sponosored by British Gas International.

Cover photo: Boxing Hares by Manfred Danegger, Overall Winner—Wildlife Photographer of the Year

BBC Wildlife MAGAZINE BG plc THE NATURAL HISTORY MUSEUM BG Wildlife Photographer of the Year

luto problems

y Neil de Grasse Tyson
lapted from "Pluto's Honor,"
atural History, February 1999

luto has "peculiar" written
over it. Pluto was discovered the
me year that Walt Disney created
e lovable, slow-witted bloodhound
at shares its name. And while the
mes of all other planets are
aceable to mythical gods whose
lents or powers one might envy,
uto is named for the god of Hades—
lark and dank residence for the
ad. Pluto's orbit is tilted seventeen
grees out of the plane of the solar
stem, two and a half times that of
ercury, which has the next most
ped orbit among the nine planets.
uto is the only planet whose orbit
osses that of another planet. With a
ameter of 1,400 miles, Pluto is, by
r, the smallest planet. Seven moons
the solar system are larger. Finally,
ither rocky, nor gaseous, Pluto is the
ly planet made primarily of ices.

Maybe Pluto isn't really a planet.

There is no question that if Pluto were discovered today, it would not be classified as a planet. Is no knowledge sacred? What's the definition of a planet, anyway?

Perhaps a planet is simply anything other than a comet that orbits the Sun. Uranus was discovered in 1781, and Neptune was discovered in 1846. Few people know, however, that the planet Ceres was discovered in 1801, orbiting the Sun between Mars and Jupiter. The suspiciously large gap between these two planets had finally been filled. But astronomers rapidly determined that Ceres was much, much smaller than any other planet: at six hundred miles in diameter, it was dwarfed by Mercury, the reigning smallest planet. Maybe size does matter. Shortly after 1801, other small objects were found in orbits similar to that of Ceres. A new class of object had been identified: the rocky asteroids. And a new swath of real estate in the solar system had been settled: the asteroid belt.

How about Pluto? When enough time had elapsed to confirm its funky orbital parameters and tiny mass, some skeptical eyebrows were raised. The more we learned about Pluto, the more it did not fit any reasonable classification scheme that applied to the other planets. It was in a class by itself. But can you have a class of one? Should you have a class of one? It wasn't rocky like Mercury, Venus, Earth, and Mars. And it wasn't gaseous like Jupiter, Saturn, Uranus, and Neptune.

And so Pluto teetered until 1992, when astronomers began to discover icy bodies just beyond the orbit of Neptune. They are small (compared with planets), they are icy, they all orbit just beyond Neptune, they have somewhat eccentric paths, and their orbits are tipped out of the plane of the solar system. A new class of objects has been identified and duly named the Kuiper belt, in honor of the Dutch-born American astronomer Gerard Kuiper, who in the 1950s advanced the idea that such a belt of comets might exist. The belt marks the inner boundary of the outer solar system, where no massive planet has formed and where the crumbs of solar system formation remain uneaten.

Alas, Pluto, which is small and icy and orbits just beyond Neptune, and has an eccentric orbit that is tipped out of the plane of the solar system, is none other than a Kuiper belt object—a leftover comet from the solar system's formation. If Pluto's orbit were ever altered so that it journeyed as close to the Sun as Earth, Pluto would grow a tail and look like a jumbo comet. Now what kind of behavior is that for a planet?

As citizen Tyson, however, I feel compelled to defend Pluto's honor. It lives deeply in our twentieth-century culture and consciousness and somehow rounds out the diversity of our family of planets like the troubled sibling of a large family.

But as professor Tyson, I must vote-with a heavy heart-for demotion. But I'd bet Pluto is happy now. It went from being the runt of the planets to the undisputed King of the Kuiper belt. Pluto is now the "big man" on a celestial campus that occupies a larger tract of the solar system than that spanned by the eight planets.

On May 24, from 7:30 to 9pm, the Hayden Planetarium is hosting a panel discussion on the status of Pluto. Admission: Members: $14 Public: $16.00.

Neil de Grasse Tyson, an astrophysicist, is the Frederick P. Rose Director of the Hayden Planetarium.

rotunda

ISSN 0194-6110

Vol. 24, No. 4, April 1999

John Davey, Editor
Michel DeMatteis, Copy Editor
Peggy Conversano, Designer
Rosemary Caulk, Director of Membership

Rotunda is published monthly, except for a combined issue in July/August, by the Membership Office of the American Museum of Natural History, Central Park West @ 79th Street, New York, N.Y. 10024-5192. Telephone: (212) 769-5606. Museum membership of $45 per year and up includes a subscription to *Rotunda*. © 1999 American Museum of Natural History. Periodical postage paid at New York, N.Y., and at additional mailing offices. Postmaster: Please send address changes to *Rotunda*, Membership Office, AMNH, at the above address. Printed in the USA.

events & exhibitions

Annual Spring Symposium:

Biodiversity and Climate Change: Conservation in the Face of Uncertainty

Friday, April 30, 9:00 a.m.–5:00 p.m.

Saturday, May 1, 9:00 a.m.–4:00 p.m.

Hosted by The Center for Biodiversity and Conservation at the American Museum of Natural History.

The geologic record provides a unique long-term history of dramatic changes in the global climate and of the impact of these changes on life. It reveals how past environmental change may have caused species to migrate, become extinct, or to give rise to new species.

Over the last century the Earth's average surface temperature has risen by about 1 degree Fahrenheit or a little more. Scientists agree our planet is now 5-9 degrees F warmer than in the depths of the last ice age 20,000 years ago. The dominant view among experts is that if we continue releasing heat-trapping gas emissions at the present rate, the average global temperature will rise by another 2 to 6 degrees F over the next century.

Global warming presents a particular challenge to biodiversity conservation in a world already largely modified by humanity. A two-day symposium entitled Biodiversity and Climate Change: Conservation in the Face of Uncertainty will explore the fate of biodiversity when climatic zones shift.

Over the course of two days, scientists, natural resource managers, conservation biologists, and policymakers will not only explore the evidence for past and present climate change and its consequences for ecosystems and species but will also address conservation planning in an age of uncertain climatic trends. A special session will examine the past, present, and future effects of a changing climate on New York City and address regional and local conservation planning issues.

Sponsored by the Museum's Center for Biodiversity and Conservation, the symposium will be held in conjunction with the opening of the new Gottesman Hall of Planet Earth.

Fee: nonmembers $55 for both days, $35 for one; AMNH members $50 for both days, $30 for one; students and senior citizens $25 for both days, $20 for one.

Please call 212-769-5200 to RSVP no later than April 15.

E. Sterling & K. Frey

Bolivian Flora

Rosalie Winard

Oliver Sacks

Oliver Sacks: The Mind Traveler

Screenings and Discussions with Oliver Sacks and other guests.

In Search of Lucy Doe
Tuesday, May 18
Poison in Paradise
Tuesday, May 25

U.S. premieres of two acclaimed videos from the series "The Mind Traveller," which follows noted neurologist and writer Oliver Sacks a he explores different neurological syndromes.

In Search of Lucy Doe (1996. 50 min.) brings Sacks and interpreters Charlene Ho-Ohuli and Susan Schalle together with four deaf people who d not have a formal language. How do we define "language"? How can peopl with no established system of language express themselves? This piece raises critical questions about the nature of communication and identity. Roundtable discussion with

challer and guests follows the reening.

his program will be spoken and gned; video is open captioned.

Poison In Paradise (1996. 50 in.), Sacks and neurologist ohn Steele attempt to unravel e mystery of Guam Disease, hich has had a dramatic fect on the population of at Pacific island. What uses this devastating ness, which produces mptoms like Parkinson's d Alzheimer's Disease? it the water supply? Is it e soil? Or is it Sacks' vorite plant, the emingly benign cycad? iscussion with Sacks llows the screening.

aufmann Theater. 6:30-30 p.m.
ee: $15 per screening 13.50 members, udents, senior citizens).

n Easter Island elebration: tone Carving & ulture

irst floor Theodore oosevelt Memorial all, Kaufmann and inder Theaters, lum Lecture oom.

lay 3-16
aster Island, r Rapa Nui s it is known o the native olynesian eoples of the island, has been the focus of centuries of exploration, curiosity, and research. Designated a "World Heritage Site" by UNESCO, Easter Island and its history, culture, and approximately 900 monumental volcanic statues, or *moai*, will be the backdrop for many of today's most pressing issues, such as preservation of cultural and natural resources, overpopulation, and the Earth's changing climate. This unique program includes an actual carving of a *moai*, performances, workshops by native Polynesian musicians, dancers, and stone carvers, and a lecture series by specialists and scholars.

For specific dates and times of this program, please call the Museum's Department of Education at 212-769-5315.

AMNH

Plaster Cast of Easter Island Statue

A Voice for the People: The Life and Work of Harold Courlander

Tuesday, April 13, 7:00-8:30 p.m.

Throughout his life, Harold Courlander (1908-96), one of the most important American cultural historians, folklorists, and storytellers, devoted his energies to the recording and preservation of music and tales from the world's oral traditions, including those from Haiti, the Black American South, Ethiopia, and the Hopi villages of the American Southwest.

In this program, Nina Jaffe, an award-winning author and Courlander biographer, presents key aspects of his life work through lecture, storytelling, music, and images. Guest artist Matoaka Little Eagle, who performs with the Thunderbird Singers and Dancers, and Amadoma Bediako, educator and narrator with the Dinizulu African Dancers, Drummers, and Singers, will join her.

Program Code: ED99211L. Fee: $12 ($10 members).

members' programs

The Pearly Gates of Cyberspace

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

The Internet may seem an unlikely gateway for the soul, but in this talk physicist and author Margaret Wertheim will discuss how cyberspace, in recent years, has become a repository for immense spiritual yearning. The perfect realm awaits, we are told, not behind the pearly gates but behind electronic gateways labeled ".com," ".net," and ".edu." Seeking to understand this mapping of spiritual desire onto digitized space, Wertheim will take us on an historical journey from Dante to the Internet, tracing the evolution of our conception of space from the Middle Ages to today.

Wertheim's most recent book, *The Pearly Gates of Cyberspace* (Norton, April 1999), will be available for signing following the talk. Location: Linder Theater. Program Code: MM4-5. Fee: $8 members; $10 non-members.

Greg Henry/Visages

Margaret Wertheim

The Mummies of Urumchi

Wednesday, May 5, 7:00 p.m.

Local archaeologists working in Chinese Turkestan during the last decade have uncovered numerous naturally mummified bodies of Caucasians dating to the Bronze Age. Exactly how, when, and from where these Western folk entered the Tarim Basin to become the area's first permanent inhabitants, some 2,000 years before the Chinese established the famed Silk Road from the east, presents a fascinating new puzzle to scientists. One key to this enigma lies in the spectacularly well-preserved and highly colorful woolen cloth and clothing found on and around the bodies; another, perhaps, in clues to the languages these people may have spoken.

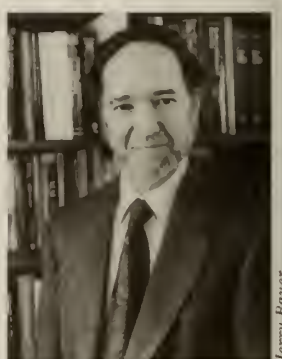
Elizabeth Wayland Barber

Elizabeth Wayland Barber, one of the world's leading scholars on ancient textiles, and professor of Archaeology and Linguistics at Occidental College in Los Angeles, presents this fascinating slide lecture. She is the author of the recently published *The Mummies of Urumchi* (W.W. Norton, 1999). Barber will discuss the remarkable mummies, the lives of these ancient shepherds, and their path to this remote and forbidding place. Location: Kaufmann Theater. Program Code: MM5-2. Fee: $8 members; $10 nonmembers.

How to Organize a Rich and Successful Group: Lessons from Natural Experiments of History

Tuesday, May 11, 7:00 p.m.

Why do companies, industrial belts, and nations differ so greatly in their productivity? For instance, why are Microsoft, Silicon Valley, and the American beer industry now outperforming IBM, Route 128, and the German and Japanese beer industries, respectively? Economists and politicians scratch their heads over these questions. But we can learn through history, which shows us the varying outcomes of thousands of natural experiments in organizing human groups. Professor Jared Diamond returns to the Museum to answer these questions, providing his own theories, in a fascinating slide lecture.



Jerry Bauer

Jared Diamond

In his Pulitzer Prize winning book *Guns, Germs, and Steel: The Fates of Human Societies*, Diamond discusses the rise of agriculture, technology, writing, government, and religion, providing a unifying theory of human history as intriguing as the histories o

Urumchi Mummy

inosaurs and glaciers.

Diamond, a professor of physiology at JCLA Medical School, is a widely eclaimed scientist, journalist, and an ward-winning author, a regular ontributor to both *Natural History* nd *Discover* magazines. Copies of the ew paperback release of *Guns, Germs, and Steel*, as well as his other ooks, will be available for purchase nd signing. Kaufmann Theater. Program Code: MM5-3. Fee: $8 nembers; $10 nonmembers.

Members Expeditions

Reel in Fish, Facts, and Fun

Saturday, May 1, 9:00 a.m.–5:30 p.m.

Fish the waterways of New York City nd learn about local marine life and nvironmental issues. Sidney Horenstein, the Museum's coordinator of Environmental Programs, will be oined by scientists from the National Park Service, Gateway National Recreation Area, and the Science Museum of Long Island.

Our privately chartered ninety-foot supercruiser sails from Sheepshead Bay, Brooklyn, and will supply everything you need to enjoy the day; rods, reels, and bait. Of course, if you have not fished before, the experts will give you instruction.

Our planned route is to Jamaica Bay for fishing and on to the Ambrose Lighthouse for educational exploration. A special microscope onboard will enable video projection of fascinating microscopic animals. A detailed itinerary will be mailed to registered participants in advance.

Program Code: MM5-1A. Fee: $67, including round-trip bus transportation from the Museum to Sheepshead Bay. Program Code: MM5-1B. Fee: $55, provide your own transportation to Pier 6, Sheepshead Bay.

Highlights of New York City Geology

Saturday, May 15, 9:00 a.m.–5:00 p.m.

Join Sidney Horenstein, coordinator of the Museum's environmental programs, for a day exploring some of the most fascinating geological features throughout the boroughs of New York City. During the day we will visit the highest point, the oldest rock in the city (1.3 billion years old), and the most recent (17 million years old) ridge created by glaciers, and learn about the major formations that make up the bedrock of the city. Board our charter coach at the Museum and begin the journey northward, crossing the Harlem River to the Bronx. Continue over the East River to Queens and southward to Brooklyn. Time permitting, we will cross the Verrazano-Narrows Bridge to Staten Island before heading back to the Museum.

A detailed itinerary will be mailed to registered participants approximately two weeks prior to the program date. Program Code: MM5-4.Cost: $55 members; $65 non-members.

You are cordially invited to attend a Members' Preview Party

The Endurance

Shackleton's Legendary Antarctic Expedition

Friday, April 9
5:30–8:30 p.m.
Cash bar available
Please present your membership card for admission

Don't Forget!

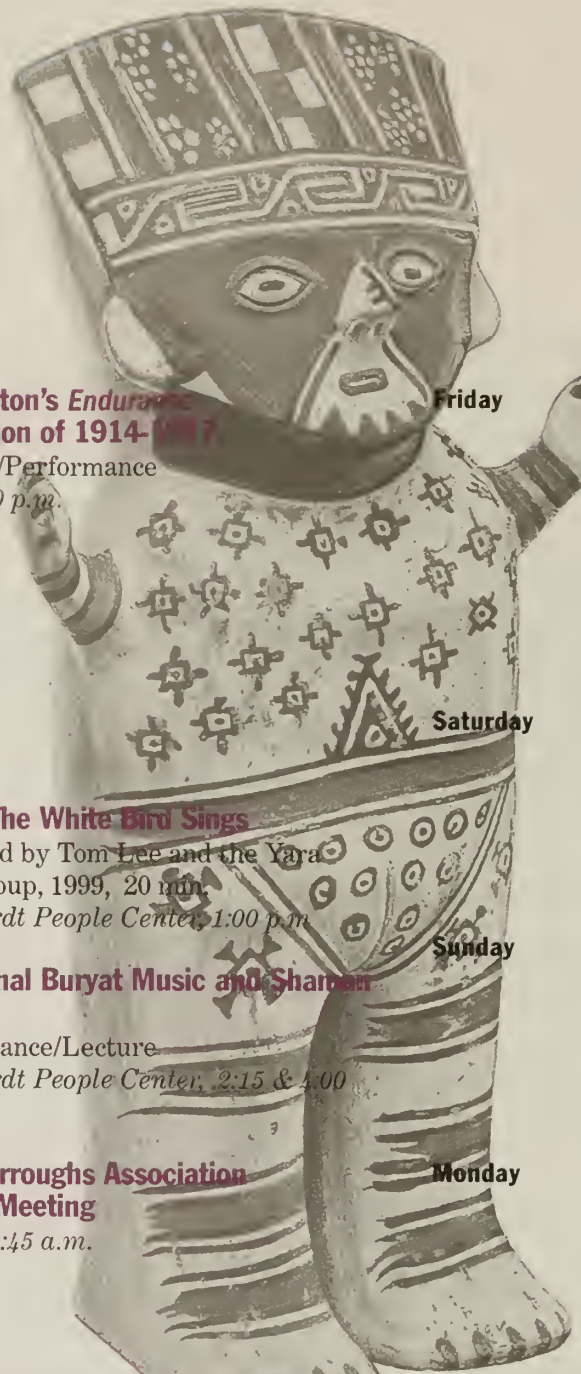
Behind-the-Scenes in Invertebrates

Wednesday, April 21 and Thursday, April 22, 6:00 and 7:30 p.m.

Begun in 1869, the department of invertebrates' collections include the very first specimens the Museum ever received. The subject matter of the department encompasses the most diverse organisms, including every phylum in the animal kingdom. From mollusks to echinoderms, crustaceans, and bryozoa, the Museum's collection of over eight million specimens are augmented continuously through donations and fieldwork.

Focusing on recent invertebrates, Museum staff will introduce you to the curatorial and research activities taking place. From rare shells of mollusks to the unusual deep sea isopod, giant squid, and three-foot lobster, you will learn about some fascinating specimens and explore storage areas. Program Code: MM4-2 April 21 and MM4-3 April 22. Fee: $20; members only.

april



Current Exhibits

Epidemic! The World of Infectious Disease
Gallery 3 through September 6
The Endurance: Shackleton's Legendary Antarctic Expedition
April 10 through October 11
Dinosaur Eggs from Patagonia
Orientation Center, 4th Floor
through May 1.

Thursday **1**
Shackleton's *Endurance* Expedition of 1914-[illegible]
Lecture/Performance
7:00-8:30 p.m.

Friday **2**

Saturday **3**
Video: The White Bird Sings
Produced by Tom Lee and the Yara Arts Group, 1999, 20 min.
Leonhardt People Center, 1:00 p.m.

Sunday **4**
Traditional Buryat Music and Shaman Chants
Performance/Lecture
Leonhardt People Center, 2:15 & 4:00 p.m.

Monday **5**
John Burroughs Association Annual Meeting
10:30–11:45 a.m.

Tuesday **6**
Global Public Health: An Overview of Global Eradication Programs
Lecture
7:00–8:30 p.m.

Wednesday **7**

Thursday **8**
Wildflower Diversity in the Northeast
Lecture by William Schiller
7:00–8:30 p.m.

Friday **9**
Shackleton: The Man and the Expedition
Lecture by Caroline Alexander
7:00–8:30 p.m.
The *Endurance*: Shackleton's Legendary Antarctic Expedition Members' Preview Party
5:30–8:30 p.m.

Saturday **10**
The *Endurance*: Shackleton's Legendary Antarctic Expedition
Exhibition Opens

Sunday **11**

Monday **12**
South Georgia Island
Lecture
7:00–8:30 p.m.

Tuesday **13**
A Voice for the People: The Life a Work of Harold Courlander
Tribute to American cultural histor
7:00–8:30 p.m.

Wednesday **14**

Thursday **15**

riday **16** **And the Winner is...**
Robert Campanile's unofficial Museum Academy Award Hall Tour
6:30 p.m.

aturday **17** **Goddesses of the Americas: The Sacred Feminine in Native American Cosmology**
Leonhardt People Center,
2:00 & 3:30 p.m.
Native How and Why Stories Native American Storytelling
Leonhardt People Center,
2:30 & 4:00 p.m.

unday **18** **Same Programs as Saturday, April 17**

londay **19** **The Antarctic Continent**
Lecture
7:00–8:30 p.m.

uesday **20**

/ednesday **21** **The Pearly Gates of Cyberspace**
Physicist Margaret Wertheim discusses the spiritual side of cyberspace.
Linder Theater, 7:00 p.m.
Behind-the-Scenes in Invertebrates
Hall Tour
6:00 or 7:30 p.m.
Program Code: MM4-2. Members Only.

Thursday **22** **Behind-the-Scenes in Invertebrates**
Hall Tour
6:00 or 7:30 p.m.
Program Code: MM4-2. Members Only

Friday **23**

Saturday **24** **Fossils, Genes, and the Origin of Species: a New Theory of Evolution**
Lecture
2:00–4:30 p.m.

Sunday **25**

Monday **26**

Tuesday **27** **Infectious Disease in New York City**
Lecture
7:00–8:30 p.m.

Wednesday **28**

Thursday **29** **Hopi Ancestors**
Lecture by Charles Adams
7:00–8:30 p.m.

Friday **30** **Biodiversity and Climate Change: Conservation in the Face of Uncertainty**
Symposium
9:00 a.m.—5:00 p.m.

Phone Numbers at Your Fingertips

Museum Information	(212) 769-5100
Membership Office	(212) 769-5606
Planetarium Information	(212) 769-5900
Members' Birthday Parties	(212) 769-5154
Education Department	(212) 769-5304
Planned Giving Office	(212) 769-5119
Discovery Tours	(212) 769-5700
*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
Website	http://www.amnh.org

For program reservations, please call (212) 769-5200

program listings

Department of Education Lectures

Public Health

Four Tuesdays, 7:00–8:30 p.m.

This series raises public health and human rights questions, from enforcing public health precautions among unwilling subjects to responding to human rights abuses while maintaining an ability to provide humanitarian aid. Program Code: ED99208L. Fee: $30 ($27 members) for series; $12 ($10 members) for single lectures.

Hepatitis B microbe

Global Public Health: An Overview of Global Eradication Programs
April 6
William Foege, professor, Department of International Health, Rollins College School of Public Health

The Emergence of Complex Humanitarian Emergencies as a Public Health Issue
April 13
Ronald Waldman, professor, School of Public Health, Columbia University

Infectious Disease in Eastern Europe
April 20
Laurie Garrett, medical and science writer, *Newsday*

Infectious Disease in New York City
April 27
Marcie Layton, assistant commissioner, Bureau of Communicable Diseases, New York City Department of Health

Nature and History of the Antarctic

7:00–8:30 p.m.

This series of six programs is offered in conjunction with the special exhibition *The* Endurance*: Shackleton's Legendary Antarctic Expedition*. The programs cover a full range of topics in Antarctic history, environment, and adventure. Program Code: ED99209 Fee: $40 ($36 members) for series; $12 ($10 members) for single lectures.

Shackleton: The Man and the Expedition
Friday, April 9
Caroline Alexander, guest curator for the special exhibition, discusses the Shackleton expedition and her new book, *The* Endurance*: Shackleton's Legendary Antarctic Expedition*, which will be available for purchase and signing.

South Georgia Island
Monday, April 12
Robert Burton, director of the South Georgia Island Whaling Museum and polar medalist, outlines the history of the island, the whalers, and research on the abundant and crucial wildlife on and around the island.

Shackleton's *Endurance* Expedition of 1914- 1917
Thursday, April 1
Using meteorologist Leonard D. A. Hussey's original lantern slides and script, Geoffrey Selley, a Fellow of the Royal Geographical Society, presents a lecture-performance of the *Endurance* adventure.

Antarctic Oasis
Friday, April 16

Frank Hurley © Royal Geographical Society

Antarctic ice

In this illustrated talk Pauline and Ti Carr discuss the planet's greatest concentration of penguins, albatrosse and other animals found on the island of South Georgia. Their book, *Antarctic Oasis: Under the Spell of South Georgia*, records the culminati of their exploits. The book will be available for purchase and signing.

The Antarctic Continent
Monday, April 19
The ice sheet covering the Antarctic continent is approximately 2,500 meters thick on average, but at its deepest location it is 4,700 meters thick. Colin Roesler, researcher at th Bigelow Laboratory for Ocean Sciences, explains the scientific characteristics and importance of th major geological feature.

Crossing of Antarctica
Saturday, May 1
On January 18, 1995, Norwegian pol explorer Borge Ousland completed t first unsupported solo crossing of th continent of Antarctica. In this talk, Ousland describes his historic journ

Fossils, Genes, and the Origin of Species: a New Theory of Evolution

Saturday, April 24, 2:00-3:30 p.m.

The debates between the gradualist and the punctuationalists have focus either on genes or on fossils as

roviding the best clues to how volution works. In this lecture, effrey H. Schwartz, professor of hysical anthropology at the niversity of Pittsburgh and research ssociate at the American Museum of atural History, explores the history f ideas pertaining to natural history, aleontology, and genetics and lustrates how certain theories that ere discarded in favor of Darwinism re critical to a unified theory of volution and an understanding of the rigin of species. By combining simple odels of inheritance with the latest iscoveries in developmental genetics, chwartz will demonstrate ow both sides of the volution debate can be orrect: the spread of utations may be gradual ut the appearance of volutionary novelty is brupt.

chwartz's new book, *udden Origins: Fossils, enes, and the Emergence of pecies*, will be available for urchase and signing. Program Code: D99214L. Fee: $12 ($10 members).

he 1918 Epidemic

Vednesday, May 5, 7:00–8:30 p.m.

Between August 1918 and March 1919, n influenza epidemic spread vorldwide, claiming over 25 million ves and killing more people than the irst World War. A half million mericans lost their lives. Alfred W. rosby, professor of American Studies t the University of Texas, details the ourse of the epidemic and examines he curious loss of national memory of his cataclysmic event. Crosby is the uthor of *America's Forgotten andemic: The Influenza of 1918*, vhich will be available for purchase. rogram Code: ED99213L. Fee: $12 $10 members).

Identification Day

Saturday, May 22, 1:00-4:30 p.m.

Bring your shells, rocks, insects, feathers, bones, and artifacts for our twelfth annual Identification Day. 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. No appraisals will be given, nor will the Museum identify gemstones.

Staff from the

New York City Department of Environmental Protection will be on hand to test water samples brought in and discuss the New York City Water Supply System. On display will be unusual selected specimens from the Museum's collections. Birds of the World Hall, second floor.

For additional information, call 212-769-5176.

Whale Watch 1999

Friday through Sunday, May 14-16

This three-day excursion to Provincetown, Massachusetts, offers a visit to Mystic Aquarium in Connecticut en route, a birding or dune walk, and chartered cruises led by experts in identifying whales and seabirds. Program Code: ED98349X. Fee: $450. Limited to 51 persons.

Hall Tours

Endurance...Plus

Saturday, May 8, 6:30 p.m.

Sir Ernest Shackleton's legendary Antarctic expedition on board the ship *Endurance* is just one of many dramatic human attempts at exploration. Experience our new exhibit of the ship's story—plus other pioneering attempts and searches around our world by those who risked life, limb and fortune. By using Museum locations and diary readings, Robert Campanile will help you endure this journey of epic human exploration. Program Code: MM 5-5. Free–members only.

Old Wounds

Friday, May 14, 6:30 p.m.

Explore a panorama of disease and healing from prehistoric times to the ancient worlds of Egypt, India, China, Greece and Rome and tour our new exhibit, Epidemic! The World of Infectious Disease. The ancient experiments, remedies and attempts to conquer pain and disease through the centuries took some surprising and interesting roads to modern medicine. Your infectious and highly contagious guide through this history of illness and treatment will be Robert Campanile. Program Code: MM 5-6. Free–members only.

program listings

Department of Education

Multicultural Programs

Indigenous Peoples' Celebration

Wearing the Spirit: North American Indian Jewelry and Adornment
Wednesday, April 28

Adornment—jewelry, beadwork, and ceremonial regalia—has been a defining medium of expression for North American Indians from ancient to contemporary times. Southwestern turquoise jewelry and Plains glass beadwork are recognized hallmarks of Indian peoples, yet there exist many other examples of Indian artistry, such as 'deeply carved' metal bracelets from the Northwest Coast, quillwork and moosehair objects from the subarctic, etched dentalium-shell and elkhorn jewelry from northern California, and engraved shell gorgets from the Southeast and Oklahoma. To place the art of American Indian ornamentation in its historical and contemporary context, author Lois Sherr Dubin shows slides and conducts conversations with several leading contemporary Native American jewelers and beadworkers. Appearing with Dubin will be Jesse Lee Monongye, Hopi-Navajo jeweler from Scottsdale, Arizona; George Blake, Hupa-Yurok carver and jeweler from Hoopa, California; Drusilla Gould, Shoshone-Bannock beadworker from Fort Hall, Idaho, and Tchin, Narragansett-Blackfoot silversmith and flutist from Perrineville, New Jersey. Dubin's new book, *North American Indian Jewelry and Adornment: From Prehistory to the Present*—featuring work by all of the panelists—will be available for purchase and signing. Kaufmann Theater, first floor, 6:00 p.m.

Children's Workshops

Money! Money! Money!

Sunday, April 25, 10:30 a.m.–12:00 noon

Ages 8-9

Learn about money from different countries, where it came from and where it goes when it is damaged or wears out. Decode the new designs on your bills to tell if your money is fake or real. Children may bring their own coin and bill collections. Presented by Barbara J. Adams, author of The Go-Around Dollar. Program Code: ED99406C. Fee: $10.

Armed and Ready!

Sunday, April 25, 10:30 a.m.-1:30 p.m.

Ages 11-12

Find out how your body defends itself from disease and how it heals itself after an injury. Using microscopes and a visit to the exhibition *Epidemic! The World of Infectious Disease*, get an up-close look at a variety of body cells and microbes. Make a model of a virus and learn how viruses invade cells. Take home some easy strategies for staying healthy and fit. Presented by Amy O'Donnell, senior science instructor, Department of Education. Program Code: ED99407C. Fee: $15.

Undersea Neighbors

Sunday, May 2, 10:30 a.m.-11:30 a.m.

Ages 6-7

Using specimens in an interactive story, children learn about various marine animals. Song and dance and a short film will also highlight selected species. A take-home art project and a visit to the Hall of Ocean Life are included. Presented by Dana Reist, former early childhood instructor at Bank Street College of Education. Program Code: ED99408C. Fee: $10.

Blue Whale

Discovery Room

Saturday & Sunday, April 24–25 & May 29–30, 12:00–4:30 p.m.

Experience natural science and anthropology through touchable specimens and "discovery boxes." Free for children five and above, located in the Leonhardt People Center.

Sunday, April 25, Museum Magic theme: Birds in a Tree.

Sunday, May 30, Museum Magic theme: Seasons in a Tree.

Kids' Stuff

A Fun Page for the Naturally Curious from Workman Publishing

THE INSECT ISSUE

RAIN FOREST DISCOVERIES

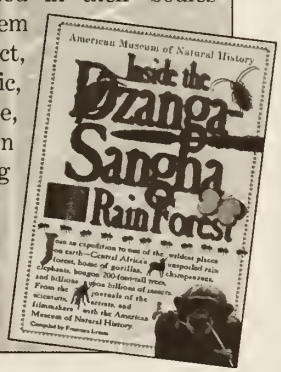
Thanks to their year-round sunlight, warmth, and wetness, rainforests are home to half the world's plant and animal species—including, of course, many of the 850,000 known insect species. If you visited the Dzanga-Sangha rain forest in Central Africa, here are some of the fascinating insects you might find:

GOLIATH BEETLES: These black-and-white beetles are the giants of the insect world. They measure four inches long, and have wings that are bigger than those of a sparrow.

RHINOCEROS BEETLES: These beetles can grow up to three inches long. The males of the species have a pair of large horns growing out of their heads, which they use to battle rival males over food, females, and territory.

DRIVER ANTS: In groups of 20 million or more, these ants march through the forest like a gigantic army, overtaking and devouring any animals in the way.

NET-WING BEETLES: These lucky beetles don't have to worry about predators—fluids produced in their bodies supposedly make them taste awful. In fact, other insects mimic, or try to look like, net-wing beetles in order to avoid being eaten.

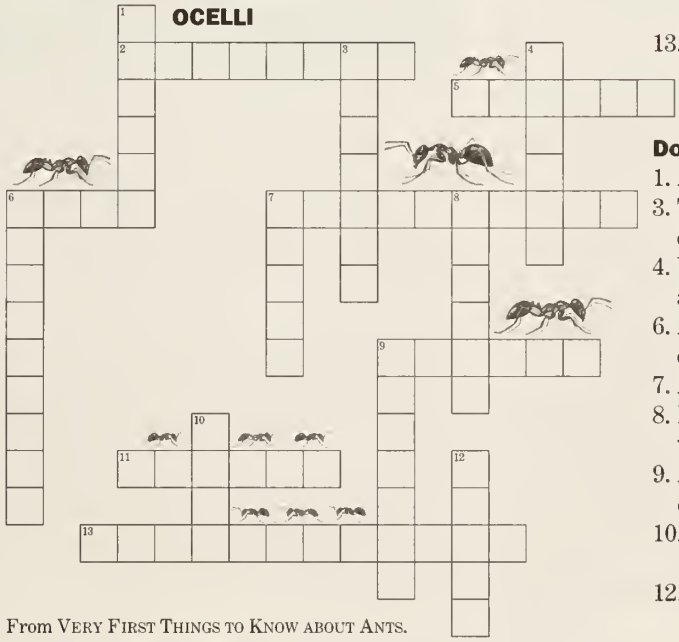


INSIDE THE DZANGA-SANGHA RAIN FOREST and VERY FIRST THINGS TO KNOW ABOUT ANTS are available at the Museum bookstore and shops as well as at bookstores throughout the country.

Crossword Puzzle
A N T S

Read the clues. Choose the correct word from the list. Write it in the crossword puzzle .

APHIDS	COMPOUND EYES	PHARAOH ANT
ARMY ANT	CROP	PUPAE
ANTENNAE	LARVAE	QUEEN
CHAMBER	MALE	THORAX
COLONY	MANDIBLES	WORKER
	OCELLI	



From VERY FIRST THINGS TO KNOW ABOUT ANTS.

Across

2. Ants use these to taste, touch, and feel.
5. Some ants drink sweet juices made by these insects.
6. Ants of this gender don't live longer than a month.
7. This type of ant is also called a sugar ant.
9. A group of ants living together.
11. With the exception of the queen, a female ant.
13. Because ants have _____, they see the world in fragments.

Down

1. Ant eggs grow into _____.
3. These ants live in hot, wet, climates.
4. Where an ant's legs are attached to its body.
6. Ants use these to lift and carry objects.
7. Ant larvae grow into _____.
8. Eyes that help some ants tell light from dark.
9. A single room in an ant colony.
10. Where an ant stores liquid food.
12. The only ant in a colony that lays eggs.

INSECT QUIZ

Do you know what insects are—and what they are not? Next to each of the statements below, write "All" if the statement applies to all insects, "Some" if it applies to some insects and "None" if it doesn't apply to any insects. Check your answers at the bottom of the page.

1. They have wings. _____
2. As adults, they have six legs. _____
3. They live in colonies. _____
4. They are smaller than two inches long. _____
5. They have an internal skeleton. _____
6. They are a type of spider. _____
7. They eat mostly leaves. _____
8. As adults, they have a head, a thorax, and an abdomen. _____
9. Their antennae are located on the abdomen. _____

Answers for Insect Quiz: 1. Some; 2. All; 3. Some; 4. Some; 5. None; 6. None; 7. Some; 8. All; 9. None

© 1999 Workman Publishing Company, Inc

museum notes

AMNH

T. Rex skull

Dino Days: Family Fun with the American Museum of Natural History

Friday, April 16, 10 a.m.–3:00 p.m., Saturday, April 17, 12:00 noon–5:00 p.m., and Sunday, April 18, 12:00 noon–5:00 p.m.

Museum staff travels to the World Financial Center's Winter Garden to lead a variety of interactive workshops, such as animal origami, fossil casting, and fish printing. Participants can also visit the "Moveable Museum" dedicated to dinosaurs. Touch a real dinosaur footprint and learn about diverse topics, including sea creatures, gems and minerals, and African mammals.

Free. For directions and information, call 212-945-0505.

The Paleontology of Dinosaurs Moveable Museum is made possible by the children and grandchildren of Paul and Irma Milstein. The Moveable Museum Program is funded by a generous grant from the Merrill Lynch & Co. Foundation, Inc. Additional support is provided by The Coca-Cola Foundation; The Louis Calder Foundation; KeySpan Energy; and The Schnurmacher Foundations. Public Support is provided by the New York City Council and the New York City Department of Cultural Affairs.

John Burroughs Programs

Association Annual Meeting
Monday, April 5 , 10:30–11:45 a.m.

Annual Literary Lunch and Award Ceremony
Monday, April 5, 12:00 noon–1:30 p.m.

The Association announces the awards for its seventy-second annual Literary Medal Award competition for exceptionally fine nature writing, the tenth annual competition for the John Burroughs List of Nature Books for Young Readers, and the sixth annual competition for An Outstanding Published Natural History Essay.

The winner of the Literary Medal Award for 1998 is Jan DeBlieu for *Wind: How the Flow of Air Has Shaped Life, Myth, and the Land,* published by Houghton Mifflin.

Slabsides Day
Saturday, May 15, 12:00 noon

Join the friends of the John Burroughs Association for an open house at the National Landmark Slabsides Museum and enjoy a special event centered on the naturalist-writer. For more information call 212-769-5169.

AMNH

Slabsides

Slabsides, a National Historic Landmark since 1968, is a rustic log cabin in the hills of the Hudson Valley near West Park. It was built by the naturalist John Burroughs in 1895. Among the first visitors to Slabsides were Frank Chapman, an ornithologist and bird-protection advocate from the American Museum of Natural History, and John Muir. Among the many subsequent visitors were Theodore Roosevelt, Thomas Edison, and Henry Ford. The cabin is built from slabs of unstripped lumber. Rustic red cedar posts support the porch. Inside the cabin, the furniture Burroughs used is made of zumac branches.

To find out more about the Slabsides restoration project, contact the John Burroughs Association, Inc., at the American Museum of Natural History, Lisa Breslof, 212-769-5169, Dept. of Education. To learn more about what's new at the Association, visit our Web site through the Museum's home page at www.amnh.org, and click on the AMNH library site.

Members' Birthday Parties

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.

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.

Art & Marjory Walters

Planned Giving

Art and Marjory Walters Provide for Their Retirement and for the Museum's Future

When they moved to the Tri-State area some twenty years ago, one of the first things that native Midwesterners Art and Marjory Walters did was to visit the American Museum of Natural History. Marjory fondly recalls, "Our boxes weren't even unpacked when we made our first trip. We've both always been interested in the natural world and we often spend our vacations traveling to see wildlife." Their love for the Museum has not wavered over the years. "We love the Museum and the way it is planning and changing for the future. It's so much more than just the exhibits—we value the research and believe in the education programs that help both children and adults gain greater interest in science. We also enjoy meeting others with similar interests."

When the Walters learned that they could support the Museum while strengthening their own retirement, they "jumped at the chance." "We hadn't thought of making a planned gift before because we do not have great wealth, and, like most people, we were concerned about having enough for retirement. After talking with the Museum's Planned Giving Office, we decided that a Charitable Gift Annuity made the most sense at our ages." Marjory chuckles, "It was a way that we could do something wonderful for this marvelous institution without cutting our throats."

A Charitable Gift Annuity is a contract between a donor and the Museum. In exchange for a gift of $5,000 or more, the donor receives quarterly payments, part of which are tax-free, for the rest of his or her life. The income from a Charitable Gift Annuity is fixed, regardless of economic conditions, and is based on the donor's age at the time of the gift. Additionally, a portion of the funds contributed are deductible for income tax purposes when the gift is made. Charitable Gift Annuities can be funded with cash or securities, and when appreciated low-yield stock is used, capital gains taxes are avoided.

The Walters were invited to join the Natural History Society, a special group of individuals who have included the Museum in their estate plans. As members, the Walters enjoy opportunities for "behind the scenes" visits to the Museum and recognition in the Museum's Annual Report.

Charitable Gift Annuities are just one of the many planned gifts offered by the Museum. For more information on how a life income gift can work for you, please call the Planned Giving Office of the American Museum of Natural History toll free at (800)453-5734.

Wash your hands! Brush your teeth!

Regular personal hygeine can assist in the prevention of such infectious diseases as gingivitis, strep, and the common cold. This bath line clebrates the message of personal hygeine from the Museum's recent exhibit *Epidemic! The World of Infectious Disease*. The charming four-piece set of white porcelin is adorned with turn-of-the-century personal-care products, reminiscent of old-fashioned apothecary ads.

Soap Dish: $12.00 (Members $10.80).
Tumbler: $11.00 (Members $9.90).
Pump Dispenser: $17.00 (Members $16.20).
Matching Guest Towel: $7.00 (Members $6.30)

AMNH

Epidemic! The World of Infectious Disease bath line

Exhibition Halls

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

The Museum Library

Tues. - Fri.	11:00 a.m. - 4:00 p.m.

Museum Dining

Diner 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.

Natural Science Center

There are many wild places in the New York area, and the Center features these habitats' 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.

The Museum Shop

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

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.

Central Reservations Seat

Program Name/Date # Members

_____

_____

_____

Total $ _____

Mr./Mrs./Miss/Ms. _____

Address _____

City _____ State _____ Zip _____

Telephone (Day) _____ (Evening) _____

Membership No. _____

❑ Check ❑ Am.Ex. ❑ Visa ❑ Master Card

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 above 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.

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 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.

American Museum of Natural History

Membership Department
Central Park West at 79th Street
New York, New York 10024-5192

Please join us for the Members' Preview Party of The *Endurance*, Friday, April 9th

QH70
.U52N5
v. 24
no. 5
May 1999

Rotunda

asian heritage events

easter island

members' programs

Vol. 24 No. 5 May 1999

American Museum of Natural History Members' Newsletter

gottesman hall of planet earth

AMNH Photo Studio

South African kimberlite

Built around dramatic rock samples that demonstrate how the Earth works, as well as the phenomena and circumstances that make our fragile planet habitable, the Gottesman Hall of Planet Earth (HoPE) explores our planet's dynamic processes and geologic history on a scale that is easily understood. Through specimens from around the world, together with state-of-the-art computer and video displays, HoPE investigates five major questions about Earth's existence:

How has Earth evolved? Why do ocean basins, mountains, and continents exist? How do we "read" rocks to discover Earth's history? What causes climate and climate change? Why is Earth habitable?

Towering sulfide chimneys from the ocean floor, a collection of 167 rocks from around the world, and a rare ice core containing a detailed climate record dating back 115,000 years are some of the specimens in HoPE that will tell the continuing story of our planet.

Suspended above a thirty-seat amphitheater, an eight-foot hemispheric globe with an internal projection system re-creates an awe-inspiring view of Earth from space. As

Installing one of the Hall's rock specimens

Opening this month, the David S. and Ruth L. Gottesman Hall of Planet Earth is a new permanent exhibition hall in the Frederick Phineas and Sandra Priest Rose Center for Earth and Space.

if orbiting the Earth, viewers will witness the formation of oceans and clouds and watch as they recede across the globe's surface, dramatizing the dynamism of our planet.

Video stations throughout the Hall will illustrate how scientists develop computer simulations to study processes too vast to understand in human terms, such as ocean circulation, storm formation, and the churning of the Earth's interior.

Another set of videos show "Scientists at Work," chronicling how some of the Hall's specimens were collected from remote sites. Other video presentations include "El Nino," "The Land of the Black Smokers," and "View of the Planet" shown on a six-by-fourteen-foot screen.

A seven-by-twelve-foot "Earth Event Wall" will display continually updated, in-depth explanations of global events such as earthquakes, volcanoes, and major storms as they occur, while also reporting on NASA satellite investigations of the Earth. The videos will be accompanied by commentaries written by Museum scientists.

Eight additional computer and video stations will teach visitors about earth processes, such as ocean and atmospheric circulation, the carbon cycle, and plate tectonics.

To highlight the new Hall, the Museum has created a special Website detailing its inception, called "Creating HoPE."

On the Website (www.amnh.org/rose/hope/creatinghope), the National Center for Science Literacy, Education, and Technology shares behind-the-scenes stories of the Gottesman Hall of Planet Earth with online visitors, enabling them to travel around the world (via the Web) with the geologists who collected the Hall's specimens.

AMNH Photo Studio

Black smoker

The Gottesman Hall of Planet Earth, measuring 8,830 square feet, will connect the lower level of the Frederick Phineas and Sandra Priest Rose Center for Earth and Space to the rest of the Museum.

The Hall's chief curator is Edmond Mathez, chairman and curator, Department of Earth and Planetary Sciences at the Museum.

Mathez notes, "In designing this Hall, we have attempted to capture the excitement and revolutionary character of a science that, in fact, is going through a revolution. We have attempted to speak to people's imagination...to their wonder and curiosity."

Cocurators include James Webster, Rosamond Kinzler, and Heather Sloan. The executive director of the Rose Center project is James A. Schmidt. The director of special projects is James S. Sweitzer.

The Rose Center is designed by the architectural firm of Polshek Partnership Architects and the exhibition design firm of Ralph Appelbaum Associates, working with Museum scientists, educators, and exhibition designers.

David S. and Ruth L. Gottesman provided generous support for this Hall.

The City of New York has provided magnificent leadership support for this project. The State of New York is an important partner in this project. The Museum is grateful for significant programming and educational support from the National Aeronautics and Space Administration (NASA).

Cover photo: Computer rendering of the David S. and Ruth L. Gottesman Hall of Planet Earth

rotunda

ISSN 0194-6110

Vol. 24, No. 5, May 1999

John Davey, Editor
Michel DeMatteis, Copy Editor
Peggy Conversano, Design Consultant
Rosemary Caulk, Director of Membership

Rotunda is published monthly, except for a combined issue in July/August, by the Membership Office of the American Museum of Natural History, Central Park West @ 79th Street, New York, N.Y. 10024-5192. Telephone: (212) 769-5606. Museum membership of $45 per year and up includes a subscription to *Rotunda*. © 1999 American Museum of Natural History. Periodical postage paid at Rutherford, N.J., and at additional mailing offices. Postmaster: Please send address changes to *Rotunda*, Membership Office, AMNH, at the above address. Printed in the USA.

events & exhibitions

Asian Pacific American Heritage Celebration

In celebration of the national observance of Asian Pacific American Heritage Month, the Museum focuses on diverse Asian and Pacific Island histories, cultures, and communities through performances, lectures, and films. The programs are held on four weekends in May.

Leonhardt People Center

Charles A. Dana Education Wing, 2nd floor

Saturday and Sunday, May 1 & 2, 1:00 to 5:00 p.m.

Video: Seoul II Soul

1:00 p.m.

Korean American filmmaker Hak J. Chung explores his own identity by taking a close look at a very engaging family. The Yates's household consists of the father, a black Korean war veteran, his war bride and their three grown children. This love match has endured for thirty-five years because of the couple's intellectual and spiritual unity. 25 min.

Video: Training to Speak

1:00 p.m.

An interesting experiment in cross culturalism and an amusing adventure in a world where languages speak out on their own. Filmmaker Chuleenan Svetvilas, born and raised in upstate New York, sits down with her parents to discuss their lives as immigrants in an environment where only English is spoken. 10 min.

Video: Sunshine

1:00 p.m.

Director: Minh Nguyen

The everyday is made extraordinarily evocative in this trip down memory lane, capturing the brief moment between love and loss for an elderly Vietnamese woman. 20 min.

Asian Families and Mental Health

2:00 & 3:30 p.m.

Mental health issues for Asian American families are culturally and generationally complex. Deborah S. Lee will be discussing the Asian concept of mental health. She will focus on mental health issues and their relationship to social and financial problems in Asian American families. Ms. Lee is the founding Director of Asian American Mental Health Services, Hamilton-Madison House, Inc. in New York City.

When You're Old Enough

2:30 & 4:00 p.m.

New York City choreographer, Maura Nguyen Donohue performs excerpts from "When You're Old Enough," a thought provoking dance–theater work depicting the experiences of a young woman of mixed Vietnamese and American heritage as she searches for an identity.

Bradford West

Maura Nguyen Donohue

Saturday & Sunday, May 8 & 9

Film: Troubled Paradise

1:00 p.m.

Producer / Director: Steven Okazaki, 1991

This documentary reveals a Hawaii that mainstream media rarely depict and most tourists never see. Featuring four stories about Native Hawaiians, this film is both a celebration of the richness of Hawaiian culture and a compelling look at the social and political problems facing the indigenous population. 58 min.

Origins and Directions

2:00 & 3:30 p.m.

Through a slide presentation of her art installations, multi-media installation artist Genara Banzon will explore her journey from her native Philippines to the United States. Banzon was chosen as one of the three most prominent sculptors in the Modern Tradition for the Humanities at the CCP/Cultural Center of the Philippines in 1991.

Na Mele O Hawaii (Songs of Hawaii)

2:30 & 4:00 p.m.

Hula is an ancient dance form that originated in the Hawaiian Islands. Hula dancing is a unique, traditional art form that combines elements of Hawaiian genealogy, religion, and mythology. Join the dancers of Radio Hula as they journey through time, sharing with you ancient hula, *kahiko*, and the popularized style of contemporary hula called *'auana*.

Saturday & Sunday, May 15 & 16

Video: Miss India Georgia

1:00 p.m.

Directors/Producers: Daniel

Friedman, Sharon Grimberg

Indian tradition meets American-style competition in this film that follows four women participating in Atlanta's annual South Asian Beauty Pageant. Through candid interviews with the women and their parents, we learn that race may be the one commonality. 60 min.

The Future of Us All in Multicultural Queens, N.Y.

2:00 & 3:30 p.m.

Since the early 1980s, urban anthropologist Roger Sanjek has documented the growth of a multiracial, multiethnic, multilingual community in Elmhurst-Corona, Queens. He will discuss how a 98% "white ethnic" neighborhood in the 1960s was transformed with the arrival of African Americans and immigrants from scores of nations in Asia and Latin America.

The Alankar Trio

The North Indian Musical Influence on Jazz

2:30 & 4:00 p.m.

Trio Alankar performs original music combining jazz, North Indian, and Western influences, with an emphasis on improvisation and group interplay. An exciting and forward looking ensemble, the trio spans styles and continents.

Saturday & Sunday, May 22 & 23

Video: Ancestors In the Americas Part I Coolies, Sailors & Settlers: Voyage to the New World

1:00 p.m.

Filmmaker Loni Ding explores the global economic and political forces that brought the first Filipino, Chinese, and Asian Indians to the shores of the Americas in the 18th and 19th centuries. Part 1 of the series portrays their difficult journey, their survival amidst harsh conditions, their first settlements in the New World, and their later remigrations from South to North America. 64 min.

Asian Americans of the Second Generation: Building Identity That Works

2:00 & 3:30 p.m.

Several Asian American communities are currently undergoing generational transitions from immigrants to ethnic Americans. So far, research on Asians in the U.S. has focused on the adjustment of immigrants and little is known about the new second-generation Americans. Kyeyoung Park, Visiting Professor at Princeton University, will situate the second generation Asian American experience in both historical and contemporary contexts.

Boundary Breakers

2:30 & 4:00 p.m.

SLANT, a resident company of La Mama Experimental Theatre, presents an innovative brand of theater and music performance that celebrates and satirizes their American upbringing while paying homage to the guiding influences of their Asian heritage.

Perry Yung

The Slant Theatre Company

Dances of Korea: Creating with Tradition

Saturday, June 19, 7:00 p.m; Sunday, June 20, 1:00 p.m. & 3:30 p.m.

Tickets: $10.00 ($8.00 members)

The Seoul Metropolitan Dance Theater make their New York City debut in an exciting and colorful program of traditional and creative Korean dances. Kaufmann Theater, first floor

For tickets call the Museum's Central Reservations & Ticketing Service, at 212-769-5200, weekdays from 8:00 a.m. to 6:00 p.m., Saturdays from 10:00 a.m. to 6:00 p.m. Program code: ED99135M.

Hayden Planetarium Lecture Series

Status of Pluto: Is It Really a Planet?

Panel Discussion

Monday, May 24, 7:30 p.m.

This discussion will include five panelists, who all are active in this field:

David Levy, Professor Michael A'Hearn (IAU), Alan Stern, Brian Marsden, and Jane Luu

Program code: HP117L. Fee for the lecture is $16 ($14 for members, senior citizens and students).

members' programs

Lectures

Gary Alt

Scott Weidensaul

Living on the Wind: The World of Migratory Birds

Thursday, June 3, 7:00 p.m.

At any moment of every day, migratory birds can fill the skies of the western hemisphere, journeying from the High Arctic to Tierra del Fuego, across the Atlantic and Pacific, moving by day and night. Join naturalist and author Scott Weidensaul on an exploration of how and why birds migrate and the conservation challenges that face them.

Scott Weidensaul is the author of more than two dozen books on natural history, including *Raptors: The Birds of Prey*, *Mountains of the Heart: A Natural History of the Appalachians*, and *Seasonal Guide to the Natural Year*. His most recent book, *Living on the Wind: Across the Hemisphere with Migratory Birds* (North Point Press, 1999) will be available for sale and signing following the talk.

Linder Theater. Cost: $8 members; $10 non-members. Program Code: MM5-5

Family Lecture

Discovering Dinosaurs: The Tiniest Giants

Saturday, June 5, 2:00 p.m.

In 1997 a group of paleontologists from Argentina and the United States set out to explore the remote badlands of Patagonia. They were looking for fossil birds and their dinosaur relatives, but they found something very different instead—a dinosaur nesting ground. Scattered across a hillside and its surrounding flats were hundreds of large, round fossilized dinosaur eggs. And curled inside one of the eggs lay a tiny embryo—a baby dinosaur that, if it had lived, would have grown up to be one of the giants of the planet.

Lowell Dingus, one of the team leaders of this extraordinary expedition, will take you and your family on a slide journey through the planning, the hunt, and the scientific importance of this fascinating discovery. Dingus directed the Museum's fossil hall renovation and has served as head geologist on the Museum's Gobi Desert expeditions, as well as on many others. He is the co-author with Luis Chiappe of the recently published *The Tiniest Giants: Discovering Dinosaur Eggs*, the fascinating account of this discovery written for young readers.

Kaufmann Theater. Cost: $8 adult, $4 child for members; $10 adult, $5 child for non-members. Program Code: MM6-1.

Behind-the-Scenes in Earth and Planetary Science

Tuesday, June 8 or Thursday, June 10, 6:00, 6:30, 7:00 or 7:30 p.m. on both dates

Program Code: MM6-6 (6/8) or MM6-7 (6/10). Cost: $20 members only. Each tour is limited to 15 participants.

The Department of Earth and Planetary Sciences curates the Museum's world-renowned collections of minerals and gems, meteorites, and rocks. Explore the department's research laboratories and collections storage with four Museum geologists.

Learn about diamonds formed in the mantle, 60 miles beneath the earth's surface, and meteorites that originated in the Asteroid belt, several hundred million miles from our planet. Staff scientists will provide special demonstrations of the Diffractometer, the Petrographic Microscope and the PROBE machines, which aid in this discipline's research. Each tour is limited to 15 participants, so register early!

Members' Expeditions

All expeditions, unless otherwise noted, include round-trip transportation (via charter bus from the Museum) lectures, and admission fees. 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.

Exploring Iona Island

Saturday, June 19, 8:30 a.m. to 5:00 p.m.

Set between bold promontories of the Hudson Highlands in Palisades Interstate Park, the marshlands of

Ashland Community Enterprises

Iona Island provide a wildlife sanctuary and the perfect setting in which to explore a spectacular variety of our local flora and fauna. Jack Focht, director of the Trailside Museum and Wildlife Center, has arranged a fascinating day of study walks, as well as special access for us to restricted areas of this National Natural Landmark.

Take a walk with naturalist Spider Barbour in search of a variety of birds and butterflies. Barbour, a prolific writer on natural history and author of *Wild Flora of the Northeast*, will focus on butterflies and the flora on which these insects dwell. Archaeologist Edward Lenik will lead a hike to explore Native American rock shelters on the island and discuss Indian occupation of the areas.

You may choose to drive and to meet the group at the Bear Mountain Inn parking area.

Cost: $60 members, including transportation; $70 non-members. $45 members without transportation; $55 non-members. Program Codes: MM6-2.

Coal and Fossils in Pennsylvania

Saturday, June 12, 8:00 am to 6:00 p.m.

Explore a fascinating geologic aspect of planet Earth on this journey to the anthracite region of Pennsylvania with Sidney Horenstein, the Museum's Coordinator of Environmental Programs. From the early 19th century through the mid 20th century, coal mining introduced a whole way of life into central Pennsylvania. We will learn about mining history, travel through the Pioneer Tunnel– a horizontal drift coal mine, which runs 1,800 feet straight into the side of the Mahanoy Mountain–in open mine cars, and take a 1920s narrow gauge steam locomotive on a scenic trip to view a strip mine.

Following our visit to the mines, we will make a stop for collecting plant fossils, which date from the Pennsylvanian Age (300 million years ago).

Cost: $70 members; $78 non-members. Program Code: MM6-3.

Hall Tours

The Inconvenience of Being Human

Friday, June 11, 6:30 p.m.

Would you like to really fly? Leap over a tall building in a single bound? Run faster than a locomotive? Get a new outer-body each year. How about immortality?...well, all are possible–with one catch–you can't be human! Join Robert Campanile as we knock humans off their highly evolved pedestal and track the magical senses and super adaptations of plants and animals that challenge our superior attitude. Free—members only. Program Code: MM6-4.

The AMNH Bestiary

Friday, June 18, 6:30 p.m.

The medieval manuscripts known as bestiaries depicted and described all manner of beasts–some real, some imagined. Stories and morals were usually attached to them, drawing lessons of good and evil from each animal. Using our own authentic diorama animals, "Beastly Bob" Campanile will follow the traditional bestiary and describe each beast in a commentary derived from original texts and fables. We will follow the medieval compiler's attempt to make sense of their living world.

Free-members only. Program Code: MM6-5.

Previously listed

The Mummies of Urumchi

Wednesday, May 5, 7:00 p.m.

Lecture by Elizabeth Wayland Barber. Kaufmann Theater. Program Code: MM5-2.

How to Organize a Rich and Successful Group: Lessons from Natural Experiments of History

Tuesday, May 11, 7:00 p.m.

Lecture by Jared Diamond. Kaufmann Theater. Program Code: MM5-3.

Members Expeditions

Highlights of New York City Geology

Saturday, May 15, 9:00 a.m.–5:00 p.m.

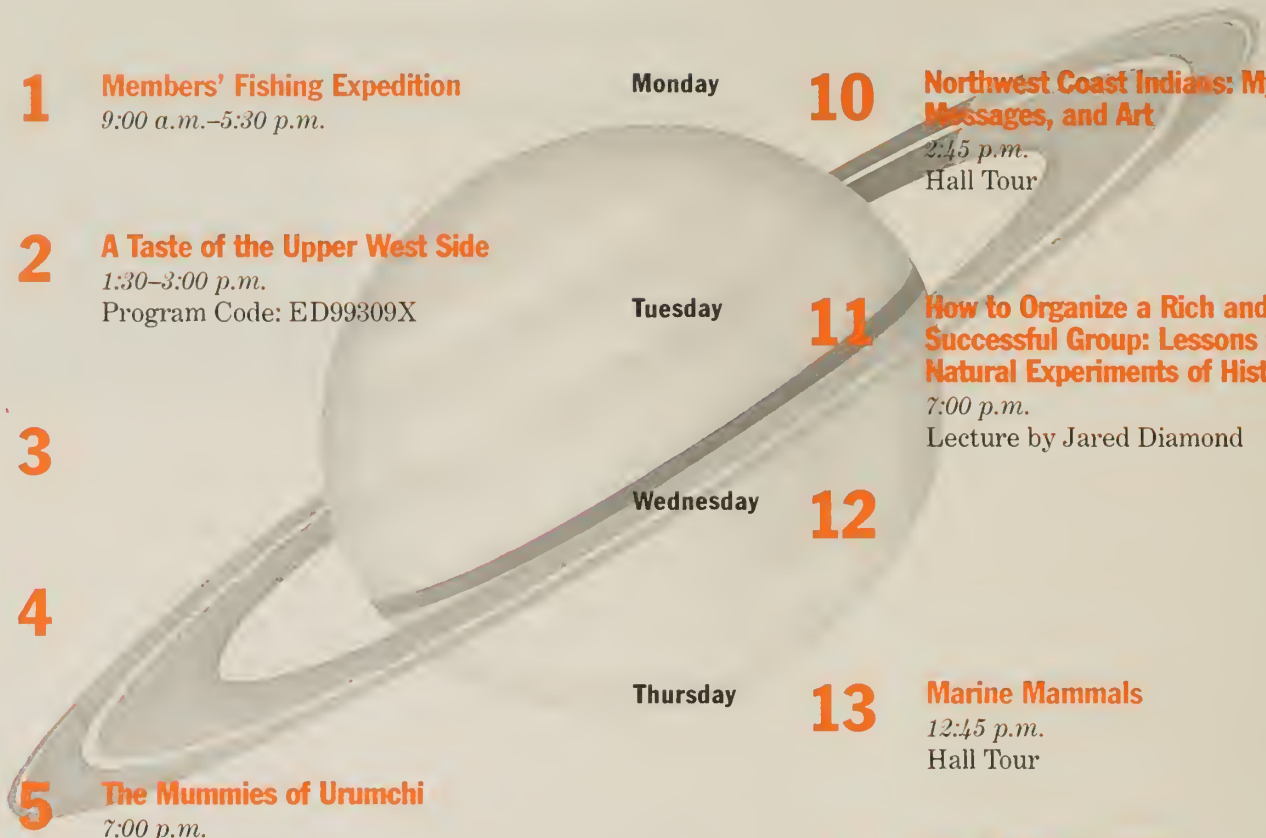
Cost: $55 members; $65 non-members.

Expedition led by Sidney Horenstein.

may

Current Exhibits

Epidemic! The World of Infectious Disease
Gallery 3 through September 6
The Endurance: Shackleton's Legendary Antarctic Expedition
April 10 through October 11



Saturday 1
Members' Fishing Expedition
9:00 a.m.–5:30 p.m.

Sunday 2
A Taste of the Upper West Side
1:30–3:00 p.m.
Program Code: ED99309X

Monday 3

uesday 4

Wednesday 5
The Mummies of Urumchi
7:00 p.m.
Kaufman Theater

Thursday 6

Friday 7
Recent Scientific Update and Aerial Survey of Easter Island
7:00 p.m.
Linder Theater, first floor

Saturday 8

Sunday 9
Easter Island Riu Hoko Rapa Nui Performance
11:30 a.m.

Monday 10
Northwest Coast Indians: Myths, Messages, and Art
2:45 p.m.
Hall Tour

Tuesday 11
How to Organize a Rich and Successful Group: Lessons from Natural Experiments of History
7:00 p.m.
Lecture by Jared Diamond

Wednesday 12

Thursday 13
Marine Mammals
12:45 p.m.
Hall Tour

Friday 14
Whale Watch 1999
3 day excursion through Sunday, May 16

Saturday 15
Highlights of New York City Geology
9:00 a.m.–5:00 p.m.
Expedition led by Sidney Horenstein

Sunday 16

Monday 17

Tuesday 18
Oliver Sacks: The Mind Traveler
In Search of Lucy Doe
6:30–8:30 p.m.

Wednesday **19** **Wonders of Metropolitan New York: The Waterways of New York**
7:00–8:30 p.m.
Lecture Subject: the Harlem River

Thursday **20**

Friday **21**

Saturday **22** **Video: Ancestors In the Americas Part I Coolies, Sailors & Settlers: Voyage to the New World**
1:00 p.m.

Sunday **23**

Monday **24** **Status of Pluto: Is It Really a Planet?**
Panel Discussion
7:30 p.m.

Tuesday **25** **Oliver Sacks: The Mind Traveler**
Poison in Paradise
6:30–8:30 p.m.

Wednesday **26** **Wonders of Metropolitan New York: The Waterways of New York**
7:00–8:30 p.m.
Lecture Subject: Newtown Creek

Thursday **27** **Earthwatch at the Museum: Coral Bleaching in the Bahamas**
7:00–8:30 p.m.

Friday **28**

Saturday **29** **Discovery Room**
12:00–4:30 p.m.

Sunday **30** **Discovery Room**
12:00–4:30 p.m

Monday **31**

Phone Numbers at Your Fingertips

Museum Information	(212) 769-5100
Membership Office	(212) 769-5606
Planetarium Information	(212) 769-5900
Members' Birthday Parties	(212) 769-5154
Education Department	(212) 769-5304
Planned Giving Office	(212) 769-5119
Discovery Tours	(212) 769-5700
*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
Website	http://www.amnh.org

For program reservations, please call (212) 769-5200

program listings

Department of Education Lectures

AMNH

Influenza virus

The 1918 Epidemic

Wednesday, May 5, 7:00–8:30 p.m.

Between August 1918 and March 1919, an influenza epidemic spread worldwide, claiming over 25 million lives and killing more people than the First World War. A half million Americans lost their lives. Alfred W. Crosby, professor of American Studies at the University of Texas, details the course of the epidemic and examines the curious loss of national memory of this cataclysmic event. Program Code: ED99213L. Fee: $12 ($10 members).

Wonders of Metropolitan New York: The Waterways of New York

Three Wednesdays, May 12, 19, and 26, 7:00–8:30 p.m.

May 12

The Arthur Kill and Kill Van Kull are about thirteen miles long and are among the busiest waterways in New York. They are used for the most part by oil tankers and container ships, which pass by the few remaining precious salt meadows and the largest municipal garbage dump in the world (soon to be closed).

May 19

The Harlem River, an eight-mile-long tidal strait, connects with the East River at its south end and the Hudson River to the west. Once the center of recreational boating, today it is little used but is famous for its six swing bridges, one lift bridge, and three arch bridges..

May 26

Newtown Creek is a four-mile tributary of the East River and flows along part of the boundary between Brooklyn and Queens. Industry came to this rural area in 1860, when the first oil and coal refineries were installed. In a short time sludge and acids were dumped into it making it one of the most polluted waterways in the City. Following World War II, its importance declined and today it is the center of a discussion on how to reclaim polluted waters.

Program Code: ED99216L. Fee: $25 ($22.50 members, students, senior citizens).

Sidney Horenstein

New York Harbor

Earthwatch at the Museum

Two lectures, Thursday, May 27 and June 24, 7:00–8:30 p.m.

Coral Bleaching In the Bahamas

May 27

Thomas McGrath, professor of biology at Corning Community College, SUNY, discusses bleaching, which occurs when coral expel the life-giving algae. Prolonged periods of bleaching without recovery eventually lead to the death of the coral–the planet's second most fragile ecosystem.

Life as a Monkey: Social Behavior of Venezuelan Capuchins

June 24

Lynne Miller, visiting assistant professor at the University of California at San Diego, examines the ways in which capuchin monkeys balance the pros and cons of group living, and how individual characteristics and behavior affect foraging and predator avoidance among individual capuchins and groups.

Program Code: ED99202L. Fee: $20 for series ($18 Museum and Earthwatch members, students, senior citizens); $12 for single lectures ($10 Museum and Earthwatch members, students, senior citizens).

The Cultural History of the New York City Police

Thursday, June 17, 7:00–8:30 p.m.

The tumultuous saga of policing New York, from the Dutch Rattle Watch to the start of Prohibition, mirrors the creation of the modern City. This lecture is followed by a walking tour from the World Trade Center to the East Village, visiting sites of crimes, riots, and rackets. Brian Ferguson, associate professor of anthropology, Rutgers University will present this slide-illustrated talk and walk.

Program Code: ED99214L. Fee: $12 lecture only ($10 members, students, senior citizens); $20 lecture and tour, Saturday, June 19 ($18 members, students, senior citizens).

Prehistoric and Historic Diseases of North America

Thursday, June 3 & 10, 7:30–9:00 p.m.

Robert S. Grumet, National Park Service anthropologist, author, and archaeologist, discusses indigenous populations in North America and the effects of disease on Native American communities.

Ranks of Life: Native American Populations
June 3

Few issues spark greater controversy than those relating to pre-Columbian native North American population numbers, densities, and distributions. Reviewing more than four centuries of scholarship and speculation, this slide-illustrated lecture will outline the major points of debate and assess the findings.

Ranks of Death: Disease, War and Population Declines
June 10

Although viewpoints on the subject differ, archaeological and archival evidence clearly corroborates Indian lore recounting drastic declines in native North American populations during the period following European contact with native communities of the continent. This slide-illustrated lecture looks at the causes of this decline..

Program Code: ED99215L. Fee: $20 ($18 members, students, senior citizens).

Disease in Old New York

Tuesday, June 29, 7:00–8:30 p.m.

For two centuries, New York City struggled with an inadequate and unwholesome water supply for fighting fires and keeping its population healthy. In 1842 the city celebrated the opening of the Croton Aqueduct, the first abundant and clean water supply. This slide-illustrated lecture by Sidney Horenstein, the Museum's Coordinator of Environmental Programs, explores the factors contributing to this situation and how it was finally contained at the beginning of the twentieth century.

Program Code: ED99217L. Fee: $12 ($10 members, students, senior citizens).

Oliver Sacks: The Mind Traveler

In Search of Lucy Doe
Tuesday, May 18
Poison in Paradise
Tuesday, May 25

U.S. premieres of two acclaimed videos from the series "The Mind Traveller," which follows noted neurologist and writer Oliver Sacks as he explores different neurological syndromes.

In Search of Lucy Doe (1996. 50 min.) brings Sacks and interpreters Charlene Ho-Ohuli and Susan Schaller together with four deaf people who do not have a formal language. Roundtable discussion with Schaller and guests follows the screening.

This program will be spoken and signed; video is open captioned.

In *Poison In Paradise* (1996. 50 min.), Sacks and neurologist John Steele attempt to unravel the mystery of Guam Disease, which has had a dramatic effect on the population of that Pacific island. Discussion with Sacks follows the screening.

Kaufmann Theater. 6:30-8:30 p.m. Fee: $15 per screening ($13.50 members, students, senior citizens).

Rosalie Winard

Oliver Sacks

The Black Smoker Expedition

Wednesday, June 23, 7:00–9:00 p.m.

From June 26–July 20, 1998, scientists collected a black smoker structure that is on display in The Hall of Planet Earth. The study of the growth of these submarine sulfide structures relates directly to a wide range of earth processes that include: the transfer of heat and mass from the interior of the earth, the origin and evolution of life on earth, the chemistry of sea water, and the formation of economically important metal deposits through geologic time. Edmond A. Mathez, chairman of the Earth and Planetary Science Department at the Museum, will introduce the Nova Film created in connection with this expedition and discuss the ongoing research. A special viewing of the new hall will follow the screening.

Program Code: ED99218L. Fee: $12 ($10 members, students, and senior citizens).

Whale Watch 1999

Friday through Sunday, May 14-16

This three-day excursion to Provincetown, Massachusetts, offers a visit to Mystic Aquarium in Connecticut en route, a birding or dune walk, and chartered cruises led by experts in identifying whales and seabirds. Program Code: ED98349X. Fee: $450. Limited to 51 persons.

program listings

Easter Island: Legacies of a People, Masters of Stone

May 3–16

SPECIAL PROGRAM

A *Moai* Carving: A Live Demonstration

Monday–Thursday, May 3–6, 10–13 and Sunday, May 9, 10:00 a.m.–5:00 p.m. each day

Friday, May 7 & 14, Saturday, May 8, 10:00 a.m.–8:00 p.m. each day

Theodore Roosevelt Memorial Hall, first floor.

More than 900 monumental statues, or *moai*, can be found on Easter Island. In this special program, four artisans from Easter Island—Pedro Pakarati Araki, Pablo Hereveri Teao, Benedicto Tuki Pate, and Esteban Pakarati—carve a nine-foot *moai* from volcanic rock using traditional tools.

PERFORMANCES AND WORKSHOPS

Short Performances at the Carving Site

Sunday, May 9, 11:30 a.m.; Tuesday, Wednesday, & Friday, May 11, 12, & 14, 11:30 a.m., 1:00, & 2:30 p.m. each day; Thursday, May 13, 1:00 & 2:30 p.m.

Theodore Roosevelt Memorial Hall, first floor.

Several dancers and musicians from the Easter Island group Riu Hoko Rapa Nui present excerpts from their repertoire at the carving site.

AMNH, Special Collections

Performances by Riu Hoko Rapa Nui

Saturdays, May 8 & 15, 4:00 & 7:00 p.m. each day; Friday, May 14, 7:30 p.m.; and Sundays, May 9 & 16, 2:00 p.m. each day.

Kaufmann Theater, first floor

Easter Island's Riu Hoko Rapa Nui company perform traditional ceremonies and chants, as well as dances influenced by those of the 1930s and those created with the introduction of the ukulele in the 1960s. The program includes works such as kaikai, which are string designs made while chanting stories and legends, and a percussion dance demonstrating great dexterity.

Music and Dance Workshop

Saturday & Sunday, May 8 & 9, 12:00–1:30 p.m. each day

Blum Lecture Room, first floor.

Limited to 30 participants.

Members of Riu Hoko Rapa Nui demonstrate and teach dances and chants of legends, daily events, and romance, and a basic Polynesian rhythm common to all South Pacific countries and islands. Musicians using a *mae'aporo* (stone ball), *fatete* (percussion drum), and *toere* (hollow tree trunk) accompany the dancers.

RAPA NUI ART: LECTURE-DEMONSTRATIONS

Stone Carving

Saturday, May 15, 4:00 p.m.

Linder Theater, first floor.

Using small pieces of stone, Easter Island artisans carve a miniature *moai* and other figures representative of Rapa Nui culture. They explain the traditional methods and techniques used to carve *moai*, which can measure as tall as sixty feet.

AMNH, Special Collections

Body Painting

Sunday, May 16, 11:00 a.m.

Linder Theater, first floor.

Riu Hoko Rapa Nui company members paint body patterns representative of different characters in Rapa Nui history and legend.

Lecture Series

The first settlement of Easter Island is estimated to be around the third or fourth century. It appears that within the first thousand years after settlement, the population of the Island may have grown to 15,000–20,000, causing deforestation, extinction of plants and animals, and disintegration of the complex society into social and political turmoil.

Recent Scientific Update and Aerial Survey of Easter Island

Friday, May 7, 7:00 p.m.

Linder Theater, first floor.

John Loret, director of the Science Museum of Long Island and president emeritus of the Explorers Club, New York, discusses the work achieved by Thor Heyerdahl in the 1955 expedition to Easter Island, in which Loret took part. He also summarizes the work he and other scientists have accomplished

on interdisciplinary expeditions by the Explorers Club undertaken from 1996 to 1998.

Robert Hemm and Marcelo Mendez, photographers and partners in Lanseair Productions, which specializes in documenting science expeditions, show their short documentary *The Birdman of Easter Island*, the first aerial survey of Easter Island taken from an ultra-light, two-person parachute plane.

Preservation of the Rapa Nui National Park of Easter Island, Chile

Saturday, May 8, 2:00 p.m.

Linder Theater, first floor.

Easter Island is a "World Heritage Site" and the U.S. National Park Service was asked to provide a team of natural- and cultural-resource specialists to observe the impact of "ecotourism" on this most isolated human-inhabited island. John T. Tanacredi discusses the preservation strategies recommended in a park management plan for the Rapa Nui National Park.

Archaeology and Ecology of Easter Island

Friday, May 14, 7:00 p.m.

Linder Theater, first floor.

Sergio Rapu, director of the Easter Island Museum from 1969 to 1990, has conducted archaeological research at more than 120 sites. He has made major contributions to Pacific archaeology, including the discovery that the original monolithic statues of Easter Island had inlaid eyes. Rapu presents a summary of the cultural and natural history of Easter Island. A slide presentation accompanies his lecture.

Documenting Petroglyphs on Easter Island

Saturday, May 15, 2:00 p.m.

Linder Theater, first floor

E. Blaine Cliver, a member of the 1998 interdisciplinary expedition to Easter Island led by John Loret (see lecture of May 7), discusses his technique of documenting the island's rock art, or petroglyphs.

A question-and-answer session will follow each lecture in the series.

All programs are free with suggested Museum admission. For further information, call the Museum's Department of Education, at 212-769-5315, between 9:00 a.m. and 5:00 p.m.

Education Programs

Identification Day

Saturday, May 22, 1:00–4:30 p.m.

Birds of the World Hall, second floor

For additional information, call 212-769-5176.

Field Trips & Walking Tours

For information and to register, call 212-769-5200.

Bird Identification for the Beginner

Saturday, May 1, 10:30 a.m.–3:00 p.m.

Program Code: ED99305X. Fee: $40 (includes sandwich lunch; no discount for members, students, senior citizens)

Arthur Marks Walking Tours

All tours are from 1:30 to 3:30 p.m. except where noted. Fee: $12 per tour ($10 members, students, senior citizens). Please indicate dates desired.

A Taste of the Upper West Side

Sunday, May 2

Program Code: ED99309X.

The East Sixties: High Aspiration Amid Grandeur

Sunday, May 23

Program Code: ED99310X

Birding in the Bashakill Marsh

Saturday, May 22, 8:00 a.m.–4:00 p.m.

Program Code: ED99308X. Fee: $40 ($36 members, students, senior citizens)

Dolkart's Neighborhood Walking Tours

Morningside Heights

Saturday, May 22, 11:00 a.m.

Program Code: ED97329X.

Fee: $12 ($10 members, students, senior citizens)

museum notes

American Museum of Natural History Volunteer Office

Thematic tours of the Museum's collections. Tours begin at the entrance to the Akeley Hall of African Mammals, on the second floor.

Epidemic! The World of Infectious Diseases
May 1, 2:45 p.m.

Explore the history and process of infectious diseases.

Extinction is Forever
May 1, 12:45 p.m.

The causes of extinction, new techniques that attempt to halt it, and the international cooperation needed to preserve the "web of life" for future generations.

Fabulous Felines
May 2, 12:45 p.m.

Cat facts and iconography.

Darwin's Voyage of the *Beagle*
May 2, 1:45 p.m.

Participants follow the journey of Charles Darwin, and learn about the origins of evolutionary theory.

Northwest Coast Indians: Myths, Messages, and Art
May 10, 2:45 p.m. and May 28, 3:45 p.m.

The unique and powerful art of the Pacific Northwest Coast Indians and the story it tells.

A Walk in the Woods
May 11, 1:45 p.m.

An exploration of various types of forest.

500 Million Years of Evolution
May 11 & 25, 2:45 p.m.

Tour of the fossil floor.

Marine Mammals
May 13, 12:45 p.m.

A baby that gains ten pounds in an hour, a female seal pregnant all its life, and the "Lord of the Arctic," who taught the natives how to hunt and build their homes.

Siberia
May 18, 2:45 p.m.

An intricately decorated salmon-skin coat, mammoth-ivory boxes, bone-and-steel armor, and other objects from one of the world's most outstanding and comprehensive collections of Siberian artifacts.

To the South Pole
May 22; 1:45 p.m.

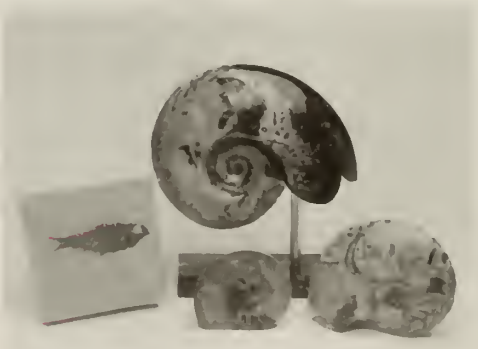
Antarctic exploration.

Wild Dogs in Life and Legend
May 29, 12:45 p.m.

Dogs in life myth and the world.

Take a piece of history home with you!

Fossil ammonoids (as pictured below) were invertebrates that inhabited the seas during the Devonian Period, 410–360 million years ago. For hundreds of millions of years, fossils have formed in the earth's surface, preserving a history of life forms for future generations. The Museum shops now carry a line of authentic fossils, representing seven different species for you to purchase and collect. Fossils of every size are available and range in price from $4 to $50, making it possible for everyone to take home a little piece of history.



They're practically running off the shelves!

SPECIAL SALE EVENT

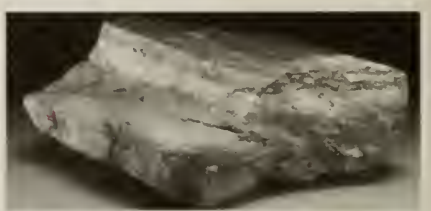
Dinosaurs, elephants, lions, and cheetahs on ties scarves, sportswear and fine jewelry.

We need to make room for the exciting merchandise we will be offering in our new Main Shop, opening November 1999, so we are making this one-time offer of our best custom-designed items and quality books, at a 40 to 50% discount.

Merchandise on sale in the Main Shop (1st floor at 77th Street) and other satellite stores.

Sale runs from May 1st to May 31st, 1999 (Main Shop closed on Tuesday, May 4th, for inventory).

You are cordially invited to attend a Members' Private Viewing of



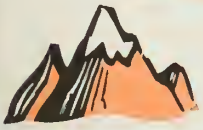
The Hall of Planet Earth

Friday, June 11
5:30–8:30 p.m.
Please present your membership card for admission
Kindly RSVP to the Membership Office
at 212-769-5606, if you plan to attend.

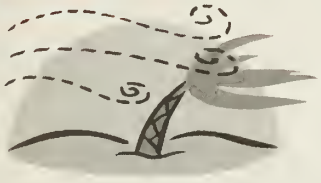
Can You Name 4 Ways Earth Changes and Rearranges?

v _ _ _ _ _ _ _ e s erUpt

r _ _ _ _ _ s carve



m _ _ _ _ _ _ _ _ s build



w _ _ _ eroties

Bet You Can't Stand Still!

- Earth spins at about 1000 miles per hour at the Equator. That's twice as fast as a jet plane.
- The ground beneath your feet is always on the move. To be specific, it's the continents we live on that are changing position—about 1/4 inch every month.

Water World

Almost 75% of the planet is covered by oceans and seas. Their powerful currents spread the sun's heat around the planet. This keeps the temperature from getting too hot or too cold. Water makes life possible. Instead of Planet Earth should we call it Planet Water?

Rock Around the Clock

A million years is hard to imagine. But if you pretend that Earth's history took place in a single day, each minute on this 24-hour clock would stand for about 3 million years.

midnight (4.5 billion years ago)	Earth forms from cosmic dust
3:20 AM (3.96 billion years ago)	age of oldest rock ever found
9:23 PM (500 million years ago)	first animals with backbones
11:00 PM (190 million years ago)	age of the dinosaurs
11:35 PM (80 million years ago)	Rocky Mountains start to form
11:58 PM (6 million years ago)	small stream begins carving Grand Canyon
11:59 and 26 sec. (1.8 million years ago)	earliest humans appear
11:59 and 45 sec. (750 thousand years ago)	humans begin using fire
11:59 and 59 sec. (20 thousand years ago)	last Ice Age

Activities on this page are from *Our Dynamic Planet*, a magazine for children created by the American Museum of Natural History's National Center for Science Literacy, Education, and Technology. *Our Dynamic Planet* can be found on the Museum's Web site at www.amnh.org. Print versions in English and Spanish are available in the Gottesman Hall of Planet Earth.

Rotunda
AM. MUS. NAT. HIST. LIBRARY
Received on: 04-21-99

Museum Hours

Exhibition Halls

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

The Museum Library

Tues. - Fri.	11:00 a.m. - 4:00 p.m.

Museum Dining

Diner 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.

Natural Science Center

There are many wild places in the New York area, and the Center features these habitats' 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.

The Museum Shop

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

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.

Central Reservations Coupon

Program Name/Date # Members

_____

_____

_____

Total $

Mr./Mrs./Miss/Ms.

Address

City State Zip

Telephone (Day) (Evening)

Membership No.

❑ Check ❑ Am.Ex. ❑ Visa ❑ Master Card

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 above 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.

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 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.

American Museum of Natural History

Membership Department
Central Park West at 79th Street
New York, New York 10024-5192

Please join us for the Members' Preview Party of The Hall of Planet Earth, Friday, May 21st

rotunda

special photo collections

young naturalist awards

members' programs

Vol. 24 No. 6 June 1999

QH70
.U52N5
v. 24
no. 6
June 1999

American Museum of Natural History Members' Newsletter

special photo collections: past, present, and future

In 1922, Herman Albert Sievers (pictured at right) was 43 years old, made $2040 a year, and had been a messenger for the Museum for 17 years. This picture catches him astride the Museum's specially equipped Indian V-twin motorcycle, which was about to be retired. (Mr. Sievers himself didn't retire until 1943, after 38 years of service to the American Museum of Natural History). It was Mr. Sievers' job to deliver specimens, films, and hand-colored glass lantern slides from the Museum to schools throughout the city. The School Delivery Service was an important function of the Museum in those days, before VCRs and computers, or even filmstrips were available to teachers. In 1922, the delivery service reached 1,648,608 students at 475 schools in all five boroughs–500,000 more kids than live in New York City at present.

Today, the lantern slide and motion picture collections that were circulated to schools, along with millions of photographs and negatives, 35mm slides, archives, memorabilia, art, and videotapes, are housed in Special Collections, a division of the Museum Library. The subjects covered are as varied as the Museum's collections and activities–there are photos of Anasazi pottery unearthed in 1915, a hand-colored lantern slide of Theodore Roosevelt swimming in a Brazilian river in 1914 (above), and films of Roy Chapman Andrews' camel caravan in the Gobi Desert in 1925.

As an example of the collection's breadth, Herman Sievers' payroll records are in Special Collections, along with the memo that sealed the fate of the Indian V-twin motorcycle (it was said to be "impairing the senior messenger's health"), as well as the photograph itself.

The collection also includes thousands of beautiful photos of Museum specimens and artifacts taken by the talented men and women working in the Museum's Photo Studio. Field photography is contributed by Museum staff and scientists, as well as our crew of professional photographers. This year, Museum photographers traveled as far as Hawaii and Indonesia to photograph specimens for the new Hall of Planet Earth.

The Museum's superb photo collection is used to illustrate textbooks, magazine articles and scholarly works. Footage from Museum films is used in educational documentaries, and photos and artwork are borrowed for exhibits all over the world. The acclaimed recent exhibit "Drawing Shadows to Stone: The Photography of the Jesup North Pacific Expedition, 1897-1902" brought hundreds of the 3,400 photographs taken in Siberia and British Columbia to a wider audience of museum–goers and scholars. The photo, below, of a Evenki (Tungus) baby in an elaborate cradle designed to strap onto the back of a reindeer, was taken by Waldemar Jochelson in 1901. This cradle is now on display in the Museum's Hall of Asian Peoples.

This year, with the generous support of the Andrew W. Mellon Foundation, the Library embarks on a project that will eventually bring its rare and unique materials, as well as the Museum's scientific publications and related collection information, to a much wider audience. The AMNH Digital Library will be an on-line repository of archive materials such as field notes and correspondence, as well as photographs, sound recordings and motion picture footage.

Special Collections is in the Museum Library and is open to the public from 11 a.m. to 4 p.m., Tuesday through Friday. It is on the Web at http://nimidi.amnh.org/special.html.

--Paula Willey, Special Collections Manager

Theodore Roosevelt photographer unknown; Tungus baby photo by W. Jochelson; Herman Sievers photo by J. Kirchner; Cover photo of Anasazi pot by S. Jacobson

rotunda

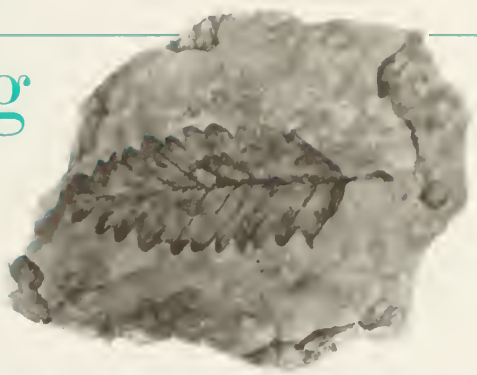
ISSN 0194-6110

Vol. 24, No. 6, June 1999

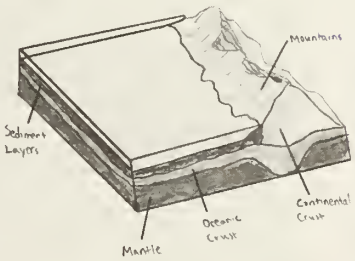
John Davey, Editor
Michel DeMatteis, Copy Editor
Peggy Conversano, Designer
Rosemary Caulk, Director of Membership

Rotunda is published monthly, except for a combined issue in July/August, by the Membership Office of the American Museum of Natural History, Central Park West @ 79th Street, New York, N.Y. 10024-5192. Telephone: (212) 769-5606. Museum membership of $45 per year and up includes a subscription to *Rotunda*. © 1999 American Museum of Natural History. Periodical postage paid at New York, N.Y., and at additional mailing offices. Postmaster: Please send address changes to *Rotunda*, Membership Office, AMNH, at the above address. Printed in the USA.

1999 young naturalist awards



From the study of mineral deposits found at a pre-Revolutionary War iron mine in Pennsylvania to a brief history of what once was a shallow inland sea that covered most of New York State 390 million years ago, from the fascinating rock formations in the North Dakota Badlands to the epic saga of glacial movement that formed the Pikes Peak region of central Colorado, young student naturalists from around the country and Canada are actively and imaginatively seeking ways to understand our world in a new light—in the process proving reports of the imminent demise of our youth's interest in science to be grossly premature.



In this spirit, the Museum once again grants its Young Naturalist Awards to recognize excellence in life, earth and space science, as well as cultural studies, in students from grades 7-12.

The contest, administered through Scholastic's Alliance for Young Artists and Writers, is a national awards program, focusing on a different topic each year, usually connected to a Museum activity.

Last year, the Award's inauguration, the theme was Biodiversity and Conservation, celebrating the opening of the Museum's new Hall of Biodiversity. This year, to coincide with the opening of the Gottesman Hall of Planet Earth, which will contain an array of dramatic samples, collected from around the world, documenting how Earth works, the entrants chose projects that concerned Earth Science.

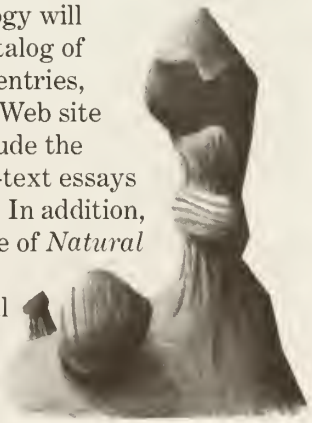
Normally, two winners from each grade are chosen; however, this year, selecting from 929 entries, submitted from 43 states, including both Alaska and Hawaii, there was a three-way tie in the senior category, creating 13 winners.

The Young Naturalist Award winners for 1999 are as follows: Brandon Aldinger, Matthew Anderson, David Blood, Katie Crabtree, Sarah Drummond, Laurel Fletcher, Tashina Graves, Megan Hagenauer, Christopher Matson, Alison Moore, Rikesh Parikh, Mary Quintilian, and Maribeth Wand.

Sponsored by the Chase Manhattan and Schurnmacher Foundations, the awards were presented to this year's winners in a ceremony held in the Museum on May 14th.

The winners and one family member were flown to New York for the ceremony and a day of activities at the Museum. After a breakfast, this year's winners were given a sneak-preview of the Gottesman Hall of Planet Earth. Afterwards, they set-off on a tour of the mineral collections followed by a stop in the Vertebrate Paleontology lab.

The Museum's National Center for Science, Literacy, Education and Technology will produce a catalog of the winning entries, along with a Web site that will include the winners' full-text essays and artwork. In addition, the July issue of *Natural History* magazine will reprint excerpts of each essay.



events & exhibitions

Dances of Korea: Creating with Tradition

Saturday, June 19, 7:00 p.m.

Sunday, June 20, 1:00 p.m. and 3:00 p.m.

The Seoul Metropolitan Dance Theater makes its New York City debut in an exciting and colorful program of traditional and creative Korean dances. Considered one of the finest dance groups of Korea, the company of twenty dancers presents traditional court and folk dances with subtle gestures, flowing costumes and vibrant props. Building on the traditional aesthetic, the company also performs newly created works from two of its major theatrical productions, *Ttodonun Hon* (Wandering Ghosts) and *Ture*, a piece based on traditional Korean farm life. For questions or further information about the program, call the Museum's Department of Education, at 212-769-5315. For tickets call the Museum's Central Reservations and Ticketing Service, at 212-769-5200.

The Seoul Metropolitan Dance Theater

Planetary Society

Arecibo Observatory

Program Code: ED99135M Fee: $10.00 ($8.00 members, students, senior citizens).

The Planetary Society presents The Search for Extraterrestrial Life: SETI @ home

Monday, June 28, 7:30p.m.

Have you ever wondered whether we are alone in the Universe? Have you ever wanted to be active participant in the hunt for extraterrestrial life?

The recent discovery of a solar system similar to our own in our very own galaxy is the first clear evidence that our Sun and its family of orbiting planets is not a singular phenomenon, and that extra-solar planetary systems may exist in vast numbers throughout the Milky Way and beyond.

Now you can join thousands of other inhabitants of our planet in the search for life beyond our solar system.

The SETI @ home project, run by the Planetary Society in California, is an innovative screen saver program designed to harness the spare computing power of hundreds of thousands of Internet-connected home computers around the world.

Like other screen savers, SETI @ home starts up when a personal computer is left idle and unattended. The computer is then used to analyze signal data gathered from the SERENDIP IV sky survey, operating

from the world's largest radio telescope, located in Arecibo, Puerto Rico. By the time 50,000 to 100,000 PCs are involved, the scope of the search will rival other current SETI projects in the search for extraterrestrial intelligence, and may indeed detect a signal that would otherwise be missed.

The screensaver program shows the analysis taking place on the home computer, and explains the significance of each result. In addition, participants can view maps showing which portion of the sky is under analysis.

The software is available FREE to anyone wishing to participate in the search.

Founded in 1980 by Drs. Carl Sagan, Bruce Murray, and Louis Friedman, The Planetary Society is a non-profit, non-governmental membership organization that supports and advocates exploration of the solar system and the search for extraterrestrial life. With 100,000 members in more than 140 countries, the Planetary Society is the largest space-interest organization on Earth.

Join Dr. Louis Friedman from the Planetary Society, on Monday, June 28, as he describes this exciting project and the quest for extraterrestrial life.

Program code: HP118L.

Location: Auditorium.

Time: 7:30 p.m.

Fee: $16 ($14 for members, senior citizens and students).

Everest on IMAX

Opens June 12 at the American Museum of Natural History.

Imagine climbing Mount Everest, every moutain climber's greatest goal and fear. Envision numbing cold—100 degrees below zero is not uncommon. Ponder just how many upward steps equal 29,028 feet, remembering that the possibility of missteps and avalanches wait at every turn.

Now you can experience the exhilaration of Everest from the comfort of your theater seat.

Everest is a story of remarkable achievement, hope and triumph in the wake of tragedy. And only IMAX lets you fully comprehend the majesty of the mountain.

members' programs

Members' Expeditions

All expeditions, unless otherwise noted, include round-trip transportation (via charter bus from the Museum), lectures, and admission fees. 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.

The Geology of Western New Jersey

Thursday, July 15, 8:30 a.m. to 5:00 p.m.

Join Sidney Horenstein, geologist and the Museum's coordinator of Environmental Programs, on this day-long exploration of the Earth's history in scenic Sussex County, New Jersey. Begin at the Franklin Mineral Museum, which houses superb collections of fluorescent and other local minerals. Travel on to High Point State Park. In the afternoon, tour the Sterling Hill Zinc Mine to explore the underground tunnels, including the magical Rainbow Tunnel with its brilliant fluorescent colors, and the Mining Museum. Be sure to bring a rock hammer and a collecting bag.

Cost: $65 members; $75 non-members. Program Code: MM7-1.

Exploring Dinosaurs in Connecticut

Tuesday, July 20, 8:00 a.m.–6:00 p.m.

Dinosaur devotees will enjoy this expedition through more than 300 million years of fossil history with Suzi Zetkus, AMNH field associate. In the morning, visit one of the largest dinosaur track sites in North America at Dinosaur State Park in Connecticut. Travel to New Haven to visit the Peabody Museum of Yale University. Between 1870 and 1873, Othniel Charles Marsh led four Yale expeditions to the American West in search of fossils. Today his most famous finds, the dinosaurs he named Triceratops and Stegosaurus, are part of this collection of over 55,000 catalogued specimens. Following a tour of the Peabody's Great Hall of Dinosaurs, we have the rare opportunity to go behind-the-scenes with Museum scientists to explore the Vertebrate Paleontology lab and collections storage.

Cost: $58 members; $68 non-members. Program Code: MM7-2.

Parent/Child Workshop

A Nest of Dinosaur Eggs: A Paper Casting Workshop

Saturday, July 24, 1:00 or 3:00 p.m.

Inspired by the recent discoveries by AMNH and Argentinean scientists of hundreds of large, round fossilized dinosaur eggs at dinosaur nesting grounds in Patagonia, we are offering this special workshop. Make a colorful cast paper relief sculpture of a dinosaur nest–complete with eggs. Using recycled paper as the casting medium in specially prepared molds, participants will create their own 8 x 10" nest using collage images, colored paper and string.

Pamela Popeson, artist and former director of the Museum's Fossil Reproduction Department, will teach this class which is suitable for all ages.

Edith C. Blum Lecture Room. Cost: $38 for adult and child—members only. Program Code: MM7-3 (1:00 p.m.) or MM7-4 (3:00 p.m.).

AMNH

Dinosaur Eggs

Coney Island Skyride

Coney Island...the Nickel Empire

Friday, July 30, 6:30 p.m.

Step right up, ladies and gentlemen, and relive the amusement parks, the side shows, the prize fights, the waxworks, and the terrible fires. It's colorful, it's racy, it's supremely entertaining...it's CONEY ISLAND!

The fun place, the sinful place...was once a seaside escape of cultural beauty and frolic. Experience again its sounds, motions, and charm as lecturer (and sometimes barker) Robert Campanile winds us through its lively and nostalgic history. We promise an evening of fun and surprises!

Kaufmann Theater. Cost: $5 members; $8 non-members. Program Code: MM7-5.

Hall Tour

The Earth As A Peppercorn

A Planet-Walk through the Solar System

Sunday, July 11, 1:00 p.m.

It's difficult to picture the dimensions of our solar system–the planets are relatively small and the distances between them almost absurdly great. For a model whose scale is true to size and distance, it's necessary to step outside. The planet-walk is a 1,000 yard model of the solar system that was devised in 1969 by astronomer/teacher Guy Ottewell. Our cosmic guides, Robert Campanile and Phil Sollecito, will use Museum grounds to take participants on a journey of discovery that covers the solar system and beyond.

Cost: Free–members only. Program Code MM7-6.

Previously Listed Programs

Living on the Wind: The World of Migratory Birds

Thursday, June 3, 7:00 p.m.

Join naturalist and author Scott Weidensaul on an exploration of how and why birds migrate and the conservation challenges that face them.

Linder Theater. Cost: $8 members; $10 non-members. Program Code: MM5-5.

Discovering Dinosaurs: The Tiniest Giants

Saturday, June 5, 2:00 p.m.

Dr. Lowell Dingus, one of the team that discovered dinosaur eggs in Patagonia, takes you and your family on a slide journey through the planning, the hunt, and the scientific importance of this fascinating discovery.

Kaufmann Theater. Cost: $8 adult, $4 child for members; $10 adult, $5 child for non-members. Program Code: MM6-1.

Behind-the-Scenes in Earth and Planetary Sciences

Tuesday, June 8 or Thursday, June 10, 6:00, 6:30, 7:00 or 7:30 p.m. on both dates.

The Department of Earth and Planetary Sciences curates the Museum's world-renowned collections of minerals and gems, meteorites, and rocks. Explore the department's research laboratories and collections storage with four Museum geologists.

Cost: $20–members only. Program Code: MM6-6(6/8) or MM6-7(6/10).

Luis Chiappe

Lowell Dingus

Members' Expeditions

Exploring Iona Island

Saturday, June 19, 8:30 a.m.–5:00 p.m.

Set between bold promontories of the Hudson Highlands in Palisades Interstate Park, the marshlands of Iona Island provide a wildlife sanctuary and the perfect setting in which to explore a spectacular variety of our local flora and fauna. Take a bird and butterfly spotting walk with naturalist Spider Barbour and explore Native American rock shelters with archaeologist Edward Lenik.

Cost: $60 members including transportation; $70 non-members; $45 members without transportation; $55 non-members. Program Codes: MM6-2.

Coal and Fossils in Pennsylvania

Saturday, June 12, 8:00 a.m.–6:00 p.m.

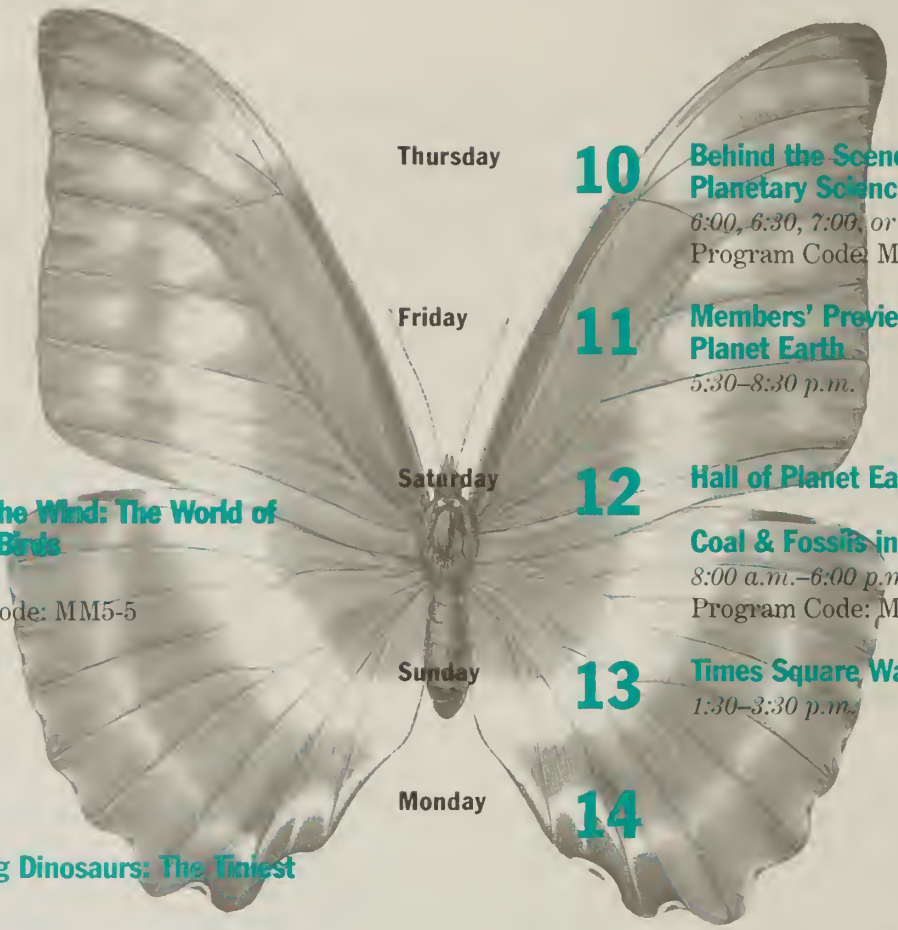
Explore a fascinating aspect of the geology of planet Earth on this journey to the Anthracite region of Pennsylvania with Sidney Horenstein, the Museum's coordinator of Environmental Programs.

Cost: $70 members; $78 non-members. Program Code: MM6-3.

june

Current Exhibits

Epidemic! The World of Infectious Disease
Gallery 3 through September 6
The Endurance: Shackleton's Legendary Antarctic Expedition
April 10 through October 11



Tuesday 1

Wednesday 2

Thursday 3
Living on the Wind: The World of Migratory Birds
7:00 p.m
Program Code: MM5-5

Friday 4

Saturday 5
Discovering Dinosaurs: The Tiniest Giants
2:00 p.m
Program Code: MM6-1

Sunday 6
Chelsea Walking Tour
1:30–3:30 p.m.

Monday 7
Living Machine: Volcanoes, Earthquakes and Underwater Exploration
Video
6:00–8:30 p.m.

Tuesday 8
Behind the Scenes in Earth and Planetary Sciences
6:00, 6:30, 7:00, or 7:30 p.m.
Program Code: MM6-6

Wednesday 9

Thursday 10
Behind the Scenes in Earth and Planetary Sciences
6:00, 6:30, 7:00, or 7:30 p.m.
Program Code: MM6-7

Friday 11
Members' Preview of the Hall of Planet Earth
5:30–8:30 p.m.

Saturday 12
Hall of Planet Earth Opens

Coal & Fossils in Pennsylvania
8:00 a.m.–6:00 p.m.
Program Code: MM6-3

Sunday 13
Times Square Walking Tour
1:30–3:30 p.m.

Monday 14

Tuesday 15
The Nooks and Crannies of Eastern New York Harbor
Cruise
6:00–9:00 p.m.

Wednesday 16

Thursday 17
The Cultural History of the New Yor City Police
7:00–8:30 p.m.

Friday 18

Saturday 19
Exploring Iona Island
8:30 a.m.–5:00 p.m.
Program Code: MM6-2

Sunday **20** **Dances of Korea: Creating with Tradition**
1:00 p.m. & 3:00 p.m.

Monday **21**

Tuesday **22** **The Black Smoker Expedition**
Lecture
7:00–9:00 p.m.

Wednesday **23** **Antarctic Geology and Fossils**
Free Lecture
7:00–8:30 p.m.

Thursday **24**

Friday **25**

Saturday **26** **The Last Dinosaur Book**
Lecture
1:30–3:00 p.m.

Sunday **27** **Murray Hill Walking Tour**
1:30–3:30 p.m.

Monday **28** **The Planetary Society Presents The Search for Extraterrestrial Life: SETI@home**
Lecture
7:30 p.m.

Tuesday **29** **Disease in Old New York**
Lecture
7:00-8:30 p.m.

Wednesday **30** **Glaciology and Climate**
Free Lecture
7:00–8:30 p.m.

Phone Numbers at Your Fingertips

Museum Information	(212) 769-5100
Membership Office	(212) 769-5606
Planetarium Information	(212) 769-5900
Members' Birthday Parties	(212) 769-5154
Education Department	(212) 769-5304
Planned Giving Office	(212) 769-5119
Discovery Tours	(212) 769-5700
*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
Website	http://www.amnh.org

For program reservations, please call (212) 769-5200

program listings

Department of Education Lectures and Field Trips

The Cultural History of the New York City Police

Thursday, June 17, 7:00–8:30 p.m.

The tumultuous saga of policing New York, from the Dutch Rattle Watch to the start of Prohibition, mirrors the creation of the modern City. Larger-than-life characters and astonishing events tell the story of how we came to live the way we do, and provide a new view on the role of police in society. This lecture is followed by a walking tour from the World Trade Center to the East Village, visiting sites of crimes, riots, and rackets. Brian Ferguson, associate professor of anthropology at Rutgers University, will present this slide-illustrated talk and walk.

Program Code: ED99214L. Fee: $12 lecture only ($10 members, students, senior citizens); $20 lecture and tour, Saturday, June 19 ($18 members, students, senior citizens).

Prehistoric and Historic Diseases of North America

Thursday, June 3 and 10, 7:30–9:00 p.m.

Robert S. Grumet, National Park Service anthropologist, author, and archaeologist discusses indigenous populations in North America and the effects of disease on Native American communities.

June 3

Ranks of Life: Native American Populations

Few issues spark greater controversy than those relating to pre-Columbian native North American population numbers, densities, and distributions. Often looking at the same data sources, people interested in the subject have put forward continent–wide estimates ranging from as little as 900,000 to as much as 100 million. Reviewing more than four centuries of scholarship and speculation, this slide–illustrated lecture will outlines the major points of debate and assesses the findings made in the area of population studies.

June 10

Ranks of Death: Disease, War and Population Declines

Although viewpoints on the subject differ, archaeological and archival evidence clearly corroborates Indian lore recounting drastic declines in native North American populations during the period following European contact with native communities of the continent. This slide-illustrated lecture looks at the causes of this decline. Drawing on historical documents, archaeological evidence, and modern medical findings, the impact of warfare, disease, and demoralization will be examined.

Program Code: ED99215L. Fee: $20 ($18 members, students, senior citizens).

AMNH

Artist's rendering of a black smoker

Disease in Old New York

Tuesday, June 29, 7:00–8:30 p.m.

For two centuries, New York City struggled with an inadequate and unwholesome water supply for fighting fires and keeping its population healthy. In 1842, the city celebrated the opening of the Croton Aqueduct, the first abundant and clean water supply. Yet, by the late 1850s, New York's mortality rate exceeded that of European capitals and of all other American cities. Although important strides in sanitation were made after the introduction of Croton water, in 1900 more than half of Manhattan families still did not have toilets and relied on privies. This slide-illustrated lecture by Sidney Horenstein, the Museum's Coordinator of Environmental Programs, explores the factors contributing to this situation and how it was finally contained at the beginning of the twentieth century.

Program Code: ED99217L. Fee: $12 ($10 members, students, senior citizens).

The Black Smoker Expedition

Tuesday, June 22, 7:00–9:00 p.m.

From June 26–July 20, 1998, scientists collected a black smoker structure that is on display in The Hall of Planet Earth. The study of the growth of these submarine sulfide structures relates directly to a wide range of earth processes that include: the transfer of heat and mass from the interior of the earth, the origin and

evolution of life on earth, the chemistry of sea water. Edmond A. Mathez, chairman of Earth & Planetary Science at the Museum will introduce the Nova Film created in connection with this expedition and discuss the on going research. A special viewing of the new hall will follow the screening.

Program Code: ED99218L. Fee: $12 ($10 members, students, and senior citizens).

Free Programs

Answers in the Ice: Modern Antarctic Research Explorers Unlock Clues to Earth's Past History

Four Wednesdays starting June 16, 7:00–8:30 p.m.

Kaufmann Theater

This lecture series, co-sponsored by the National Science Foundation, examines major areas of polar research.

June 16

Antarctic Geology and Fossils
Scott G. Borg, program director, Antarctic geology and geophysics, Office of Polar Programs, National Science Foundation.

June 23

Antarctic Meteorites: Sifting the Sands of the Solar System
Ralph P. Harvey, field team leader and principal investigator of the Antarctic Search for Meteorites project (ANSMET), and assistant professor, Department of Geological Sciences, Case Western Reserve University.

June 30

Glaciology and Climate
Paul A. Mayewski, professor and director, Climate Change and Research Center, University of New Hampshire.

July 7

Life at the Pole
Helleary D. Everist, deputy director, Division of Social Behavioral and Economic Research, National Science Foundation.

Planet Earth Video Series and Hall Viewing

Four Mondays June 7 to 28, 6:00–8:30 p.m.

Free Admission

This Emmy Award winning series is in conjunction with the opening of the Gottesman Hall of Planet Earth. The Series examines many of the questions posed in the new hall. Following each screening and question and answer period there will be a special viewing of the Hall. This program will be introduced by Dr. Rosamond Kinzler, research scientist in the Department of Earth and Planetary Sciences and a member of the development team on the new Hall.

June 7

Living Machine: Volcanoes, Earthquakes and Underwater Exploration
June 14

Gifts From the Earth: Witness the Fiery Birth of Earth's Riches
June 21

Blue Planet: Underwater Hurricanes and Tornadoes
June 28

Climate Puzzle: Is a New Ice Age Inevitable or Will Life be Swept Away by Flood?

AMNH

Hall of Planet Earth

The Last Dinosaur Book

Saturday, June 26, 1:30–3:00 p.m.

Kaufmann Theater

For animals that have been dead millions of years, dinosaurs are extraordinarily pervasive in our everyday lives. How did dinosaurs move from natural extinction to pop culture resurrection? In this lively and engrossing lecture about dinosaurs, W. J. Thomas Mitchell, professor of English literature and art history at the University of Chicago and author, explores why we are so attached to the myth and the reality of the "terrible lizards," Mitchell's The Last Dinosaur Book will be available for purchase and signing. 9:00–10:30 a.m.

program listings

Margherita Auletta

Sunset Cruise up the Hudson River

Tuesday, June 8, 6:00 - 9:00 p.m.

A sunset cruise up the Hudson River to survey the geological features of the southernmost fjord in the northern hemisphere. Learn about the origins of the river and the Palisades, plant and animal habitats, local history, and environmental concerns facing this important waterway today. Program Code: ED99315X. Fee: $25 ($22.50 members, students, senior citizens).

The Nooks and Crannies of Eastern New York Harbor

Tuesday, June 15, 6:00–9:00 p.m.

This cruise follows the East River north into Newtown Creek and then south to the former Brooklyn Navy Yard and past the South Street Seaport area. Continuing south, the boat visits the Buttermilk Channel, which borders the neighborhood of Red Hook, the historic commercial center behind Governors Island. The trip continues into Gowanus Bay, passing along the Brooklyn shoreline–the land created by glaciers some 18,000 years ago. Program Code: ED99316X. Fee: $25 ($22.50 members, students, senior citizens).

Exploring the East River and the Long Island Sound

Saturday, June 26, 11:00 a.m.–3:00 p.m.

Cruising the East River through the Hell Gate, this trip offers unusual views of Rikers Island and the Bronx River as the cruise traverses the thirteen-mile length of the East River to Long Island Sound. Program Code: ED99317X. Fee: $30 ($27 members, students, senior citizens).

You are cordially invited to attend a Members' Private Viewing of

The Hall of Planet Earth

Friday, June 11
5:30–8:30 p.m.
Please present your membership card for admission
Kindly RSVP to the Membership Office
at 212-769-5606, if you plan to attend.

After Hours Tours in the Gottesman Hall of Planet Earth

Tuesdays, June 22, July 6, or 20. 7:00–8:30 p.m.

Program Code: ED99331X.

Wednesdays, June 23, July 7, or 21, 7:00–8:30 p.m.

Program Code: ED99332X.

Thursdays, June 24, July 8, or 22, 7:00–8:30 p.m.

Program Code: ED99333X.

Saturdays, June 26, July 10, or 24, 9:00–10:30 a.m.

Program Code: ED99334X.

Sundays, June 27, July 11, or 25

Program Code: ED99335X.

Fee: $12 per tour ($10 members, students, and senior citizens). Please indicate dates desired. Limited to 25 persons.

Arthur Marks Walking Tours

Arthur Marks, leader of walking tours since 1965, explores six historic Manhattan neighborhoods. All tours are from 1:30 to 3:30 p.m., except where noted. Fee: $12 per tour ($10 members, students, senior citizens).

Chelsea: Epicenter of Art and Fun

Sunday, June 6.

Satisfy your intellectual curiosity, fulfill your quest for beauty, and gratify your gustatory senses at the same time. We will start at the brilliantly designed Chelsea Market at 15th Street and 10th Avenue and go

north to see the General Theological Seminary, the Guardian Angel Church, St. Peter's Church, the Chelsea Hotel, and the oldest house in Chelsea. Program Code: ED99311X.

Say Hello to the New Times Square

Sunday, June 13, 10:00 a.m. (Note time change).

The Great White Way has never been brighter. Some of the new buildings we will examine and discuss include the restored New Amsterdam Theater, the Ford and New Victory Theaters and the Warner Brothers Building; we will also note the effect of the spectacular electric signs, and we'll remember some of tunes of the past. Program Code: ED99312X.

Murray Hill, Elegant Enclave

Sunday, June 27

We will see the former home of financier J. P. Morgan and the Morgan Library, and pass by Morgan's Hotel, Malvina Hoffman's studio, Sniffen Court, the Union League Club, and the Church of the Incarnation. Program Code: ED99313X.

Harlem

Saturday, June 12, 11:00 a.m.

Harlem is one of New York City's most beautiful and historically significant neighborhoods and also one of its least well known and least understood. We will walk through some of the city's most beautiful rowhouse blocks, including the famous Strivers Row and will explore the history and architecture of the area, focusing on the section of Harlem that became the center of New York's African-American community in the 1920s. Program Code: ED97330X. Fee: $12 ($10 members, students, senior citizens).

Explore Africa with the American Museum of Natural History

Family Safari to Kenya and Tanzania
August 11 – 25, 1999
$4,290 – $5,990

Endangered Africa
September 8 – 21
$7,495

Millennium Safari in Kenya
December 20, 1999 – January 3, 2000
Estimated at $6,990

Discovery Tours
American Museum of Natural History

Central Park West at 79th St., New York, NY 10024
(800) 462–8687 or (212) 769–5700 Fax (212) 769–5755
Call for a complete listing of our 1998/1999 tours.
Please mention ad code #12000898.

museum notes

The World on Display!

The 4.5–billion-year story of our home planet will be dramatically presented when the Museum's new Gottesman Hall of Planet Earth opens on Saturday, June 12, 1999. The Museum Shop is offering a unique collection of products, celebrating the opening of this exciting new hall. The vivid colors of volcanos, the varied textures of glacial and land formations, and the detailed artwork of early geological documentation are captured in this line of custom products available to everyone at prices ranging from $2 to $500.

Call for Volunteers

In anticipation of the opening of the Rose Center, the Volunteer Office is looking for candidates for two programs:

First, the department is designing an Earth and Space Explainer Program similar to the Fossil Explainer Program, which currently operates on the fourth floor in our fossil collections. The Earth and Space Explainers will eventually be a well-trained corps of volunteers who work in the Hall of Planet Earth, the Hall of the Universe, and all other areas containing exhibitry in the Rose Center. They will be trained in astronomy and earth and planetary science, with specific training related to the objects on display. Training will occur in the evenings starting in October. What you need is the desire and ability to learn coupled with strong people skills. In addition, if interested, you will be required to make a 2–year commitment. We encourage potential candidates to call the Volunteer Office and state specifically that they have interest in this program. (212) 769-5566.

Second, the Museum currently uses approximately 130 volunteers to staff four information desks. The volunteer office is seeking additional information desk staff to work the two new desks that will be opening in the Rose Center. Applicants must be able to commit to a four hour shift per week (or every other week if you work on the weekends), must be willing to work at any of the six desks throughout the Museum, and must have excellent people skills and genuinely like working with visitors. If interested, call the Volunteer Office at 769–5566 and state that you wish an application for Information Desk work.

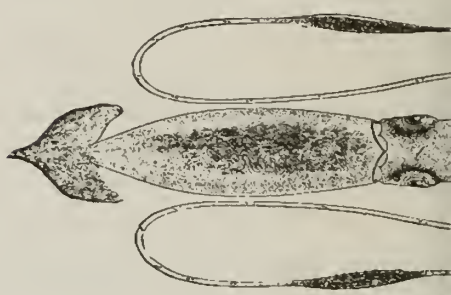
Museum Tours

Thematic tours of the Museum's collections. Tours begin at the entrance to the Akeley Hall of African Mammals, on the second floor.

Early American Herbal Medicine

June 3 & 17, 2:45 p.m.

An exploration of the diversity and richness of medicinal plants at our doorstep.



Sea Monsters

June 5, 11:45 a.m.

Fearsome creatures of the sea, from 500 million years ago to the present.

Northwest Coast Indians: Myths, Messages and Art

June 7 & 14, 2:45 p.m.

The unique and powerful art of the Pacific Northwest Coast Indians and the story it tells.

Extinction is Forever

June 12, 12:45 p.m.

The causes of extinction, new techniques that attempt to halt it, and the international cooperation needed to preserve the "web of life" for future generations.

To the South Pole

June 13, 12:45 p.m.

Antarctic exploration.

Siberia

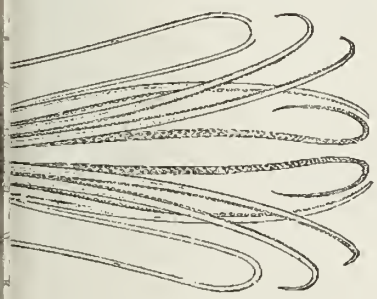
June 15, 1:45 p.m.

An intricately decorated salmon-skin coat, mammoth-ivory boxes, bone-and-steel armor, and other objects from one of the world's most outstanding and comprehensive collections of Siberian artifacts.

Sharks!

June 19, 11:45 a.m.

Fascinating facts, oddities, and myths.



Human Evolution

June 22; 1:45 p.m.

Who were our ancestors? Do we know? The Museum's Hall of Human Biology and Evolution tells the story from evidence paleoanthropologists have been able to collect so far.

Marine Mammals

June 26, 12:45 p.m.

A baby that gains ten pounds in an hour, a female seal pregnant all its life, and the "Lord of the Arctic," who taught the natives how to hunt and build their homes.

Darwin's Voyage of the Beagle

June 27, 1:45 p.m.

Participants follow the journey of Charles Darwin, and learn about the origins of evolutionary theory.

Capture a piece of the history and adventure for the explorer in your family!

The American Museum of Natural History Museum Shop is commemorating this heroic expedition with our Shackleton collection of artwork, sportswear, and maritime items, featuring Frank Hurley's striking photography and moving personal journal entries. Also on sale--the story of the expedition, itself, dramatically told in the *New York Times* bestseller, "*The* Endurance," by Caroline Alexander.

Book: $29.95 (Members $26.95)
Poster: $10.00 (Members $9.00)
T-shirt: $16.95 (Members $15.25); available in pebble and white, Small, Medium, Large or XL.

Rotunda
AM. MUS. NAT. HIST. LIBRARY
Received on: 06-04-99

Museum Hours

Exhibition Halls

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

The Museum Library

Tues. - Fri.	11:00 a.m. - 4:00 p.m.

Museum Dining

Diner 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.

Natural Science Center

There are many wild places in the New York area, and the Center features these habitats' 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.

The Museum Shop

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

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.

Central Reservations Coupon

Program Name/Date # Members

_____

_____

_____

Total $

Mr./Mrs./Miss/Ms.

Address

City State Zip

Telephone (Day) (Evening)

Membership No.

❑ Check ❑ Am.Ex. ❑ Visa ❑ Master Card

Credit Card Number Exp. Date

Signature

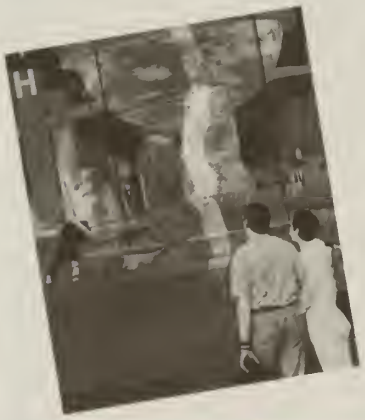
By Phone: Call (212) 769-5200 six days a week — Monday through Friday from 8:00 a.m. to 6:00 p.m. and Saturday from 10:00 a.m. to 6:00 p.m. Have your credit card and membership category ready when you call.
By Mail: Send the registration form above to Central Reservations, American Museum of Natural History, Central Park West at 79th Street, New York, N.Y. 10024-5192. Make checks payable to the American Museum of Natural History.

Entrances

During Museum hours, visitors can enter the building through the 77th Street entrance, or the first- and second-floor Roosevelt Memorial Hall entrances (79th Street and Central Park West). The subway entrance is temporarily closed for construction. 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.

American Museum of Natural History

Membership Department
Central Park West at 79th Street
New York, New York 10024-5192



Join us for the Members' Preview of The Hall of Planet Earth, Friday, June 11th

H70
U52N5
. 24
). 7
ıly-Augus
1999

Rotunda

Vol. 24 No. 7 July/August 1999

the new hayden planetarium

summer educator institutes

members' programs

American Museum of Natural History Members' Newsletter

the universe on 81st street

As the centerpiece of the Frederick Phineas and Sandra Priest Rose Center for Earth and Space, the new Hayden Planetarium—set to open early 2000—will bring the entire universe to 81st Street, transporting visitors from the furthest reaches of our galaxy to the beginning of time and space.

Housed in the Rose Center's focal point, a glass-walled sphere ninety feet in diameter, the new Planetarium will be divided into two parts: the upper section containing a state-of-the-art Space Theater; and the lower section featuring the Big Bang Theater.

Unlike the former Hayden Planetarium's earth-based sky show, the new Planetarium shows will transport audiences throughout the universe...from the comfort of their seat.

Transporting visitors from the furthest reaches of our galaxy to the beginning of time and space

Using advanced visual technology (including the latest, customized Zeiss projector generously supported by Joan Bull), the Space Theater will create space shows of unparalleled realism, dramatizing—with the aid of NASA's Jet propulsion Laboratories and Hubble Space Telescope—the latest images and discoveries of planetary and space science.

Besides serving as the source material for the constantly evolving space shows, the Museum, via its new National Center for Science and Literacy, plans to make these images and discoveries available to sites across the country, providing a much needed interpretive connection between local communities and national science information systems.

In conjunction with this project, Museum experts, along with colleagues from NASA and other institutions, are creating three-dimensional digital maps of our Milky Way Galaxy, which will be used in space shows and courses held at the Hayden Planetarium. The Digital Galaxy Project will also be accessible on the World Wide Web and will be available for use by other planetaria and science centers.

The Hayden Planetarium's Zeiss Star Projector uses fiber optics and other

Cover and above-right: computer renderings of Rose Center for Earth and Space. Left: computer rendering of new Hayden Planetarium's Zeiss Star Projector. Right: computer rendered comet. All AMNH.

technologies to produce images so realistic that visitors, using binoculars, can view objects invisible to the naked eye.

The Space Theater's projectors allow 70-mm slides to be projected seamlessly on the theater's full dome, enabling detailed and accurate views of the sky.

Also featured in the new Planetarium are an "All-sky laser system"—lasers of superior color and brightness that allow full-dome coverage—a Center Projection Platform, which can be raised and lowered so that visitors may "walk" freely through space, and Trackable Sound, which allows directional control of space show sounds.

Transporting visitors to the beginning of time and space, the moment of creation, the Big Bang Theater will allow them to experience a dramatic multi-sensory, interpretive re-creation of the first moments of the universe's history.

From the Theater, visitors following the Harriet and Robert Heilbrunn Cosmic Pathway, will continue on a journey chronicling the universe's evolution. Presenting the story of the universe using text and more than 300 images and diagrams, the pathway is a sloping walkway, linking the Hayden Planetarium and the Lewis B. and Dorothy Cullman Hall of the Universe, another section of the new Rose Center for Earth and Space.

The new Planetarium's chief curator is Neil de Grasse Tyson, Frederick P. Rose Director of the Hayden Planetarium.

Polshek Partnership Architects and the exhibition design firm of Ralph Appelbaum Associates worked with Museum scientists, educators and exhibition designers to come up with the Rose Center's final design.

Namesake support for the Hayden Planetarium has been provided by a grant from the Charles Hayden Foundation (see related article, p. 11). New York State and the City of New York have also provided support for the project.

rotunda

ISSN 0194-6110

Vol. 24, No. 7, July/August 1999

John Davey, Editor
Michel DeMatteis, Copy Editor
Peggy Conversano, Designer
Rosemary Caulk, Director of Membership

Rotunda is published monthly, except for a combined issue in July/August, by the Membership Office of the American Museum of Natural History, Central Park West @ 79th Street, New York, N.Y. 10024-5192. Telephone: (212) 769-5606. Museum membership of $45 per year and up includes a subscription to *Rotunda*. © 1999 American Museum of Natural History. Periodical postage paid at New York, N.Y., and at additional mailing offices. Postmaster: Please send address changes to *Rotunda*, Membership Office, AMNH, at the above address. Printed in the USA.

members' programs

Members' Expeditions

All expeditions, unless otherwise noted, include round-trip transportation (via charter bus from the Museum), lectures, and all admission fees. 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.

Wild Walk: Staten Island Greenbelt

Tuesday, August 10, 9:00 a.m.–5:30 p.m.

Wild New York authors Margaret Mittelbach and Michael Crewdson will lead us on one of their favorite hikes located practically in our own backyard, the Staten Island Greenbelt nature preserve. This network of parks includes 28 miles of hiking trails, incredible panoramic views, lush canopied forests, wetlands and moist woods. Spring-fed kettle ponds dot the area, and streams flow through the woodlands. This moderately difficult hike begins at Loosestrife Swamp, where trees like sassafras and sweet gum are common. Area wildlife we are likely to see include red-winged blackbirds, dragonflies, painted turtles and green frogs. As we get into more serious hiking, we will climb up the 200 foot Moses Mountain, a man-made hill created from the rock blasted out during the construction of the Staten Island expressway. We will conclude our expedition with a stroll along the beach at Great Kills Park.

Cost: $55 members; $65 non-members. Program Code: MM8-1.

Ice Age Long Island: Montauk Point

Wednesday, August 18, 8:00 a.m.–7:00 p.m.

Long Island has seen some startling changes since the glaciers began their retreat some 17,000 years ago. Sidney Horenstein, geologist and the Museum's coordinator of Environmental Programs, hosts this excursion to Montauk Point at the southeastern end of Long Island, which spotlights the island's history and explores many of the geological features created by the glaciers. Walk on coastal sand dunes, beaches, tombolos, and along the edge of one of the steep, wave-cut bluffs that rise 30 to 80 feet above the shore. Explore Montauk State Park and view the Montauk Lighthouse, built in the late eighteenth century. 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 Shinnecock Canal will illustrate how the canal helps to control the local coastal ecology.

Cost: $75 members; $85 non-members. Program Code: MM8-2.

Exploring the Delaware River Valley

Thursday, August 26, 8:00 a.m.–6:00 p.m.

Join Sidney Horenstein, the Museum's coordinator of Environmental Programs, to explore the unique geological and natural features of the Delaware River Valley. We'll visit the Basherkill Swamp, a unique wildlife preserve which provides an excellent opportunity for bird watching. Travel to Port Jervis, named for the American self-taught engineer, John Jervis, who was instrumental in the development of the Croton system, the earliest part of New York City water supply. During the course of the day, we will walk across an early bridge by John Roebling that spans the Delaware River, collect fossil specimens in 370 million year old rock and visit a remaining segment of the Delaware–Hudson Canal.

Cost: $65 members; $75 non-members. Program Code: MM8-3.

Hall Tour

Around the World in 80 Minutes

Friday, September 17, 6:30 p.m.

A Free World Tour!...hop, skip, and jump as we cover the seven continents, oceans, and islands in a whirlwind tour of our Earth's diversified environments. Twenty-five thousand miles in eighty minutes! Your balloonist will be Robert Campanile...move over, Jules Verne!

Program Code: MM9-1.

Previously Listed

The Geology of Western New Jersey

Thursday, July 15, 8:30 a.m. to 5:00 p.m.

Join Sidney Horenstein, geologist and the Museum's coordinator of Environmental Programs, on this day-long exploration of the Earth's history in scenic Sussex County, New Jersey. Begin at the Franklin Mineral Museum, which houses superb collections of fluorescent and other local minerals. Travel on to High Point State Park. In the afternoon, tour the Sterling Hill Zinc Mine to explore the underground tunnels, including the magical Rainbow Tunnel with its brilliant fluorescent colors, and the Mining Museum. Be sure to bring a rock hammer and a collecting bag.

Cost: $65 members; $75 non-members. Program Code: MM7-1.

Exploring Dinosaurs in Connecticut

Tuesday, July 20, 8:00 a.m.–6:00 p.m.

Dinosaur devotees will enjoy this expedition through more than 300 million years of fossil history with Suzi Zetkus, AMNH field associate. In the morning, visit one of the largest dinosaur track sites in North America at Dinosaur State Park in Connecticut.

Travel to New Haven to visit the Peabody Museum of Yale University. Between 1870 and 1873, Othniel Charles Marsh led four Yale expeditions to the American West in search of fossils. Today his most famous finds, the dinosaurs he named Triceratops and Stegosaurus, are part of this collection of over 55,000 catalogued specimens. Following a tour of the Peabody's Great Hall of Dinosaurs, we have the rare opportunity to go behind-the-scenes with Museum scientists to explore the Vertebrate Paleontology lab and collections storage.

Cost: $58 members; $68 non-members. Program Code: MM7-2.

Coney Island...the Nickel Empire

Friday, July 30, 6:30 p.m.

Step right up, ladies and gentlemen, and relive the amusement parks, the side shows, the prize fights, the waxworks, and the terrible fires. It's colorful, it's racy, it's supremely entertaining...it's CONEY ISLAND!

The fun place, the sinful place...was once a seaside escape of cultural beauty and frolic. Experience again its sounds, motions, and charm as lecturer (and sometimes barker) Robert Campanile winds us through its lively and nostalgic history. We promise an evening of fun and surprises!

Kaufmann Theater. Cost: $5 members; $8 non-members. Program Code: MM7-5.

Parent/Child Workshop

A Nest of Dinosaur Eggs: A Paper Casting Workshop

Saturday, July 24, 1:00 or 3:00 p.m.

Inspired by the recent discoveries by AMNH and Argentinean scientists of hundreds of large, round fossilized dinosaur eggs at dinosaur nesting grounds in Patagonia, we are offering this special workshop. Make a colorful cast paper relief sculpture of a dinosaur nest–complete with eggs. Using recycled paper as the casting medium in specially prepared molds, participants will create their own 8 x 10".

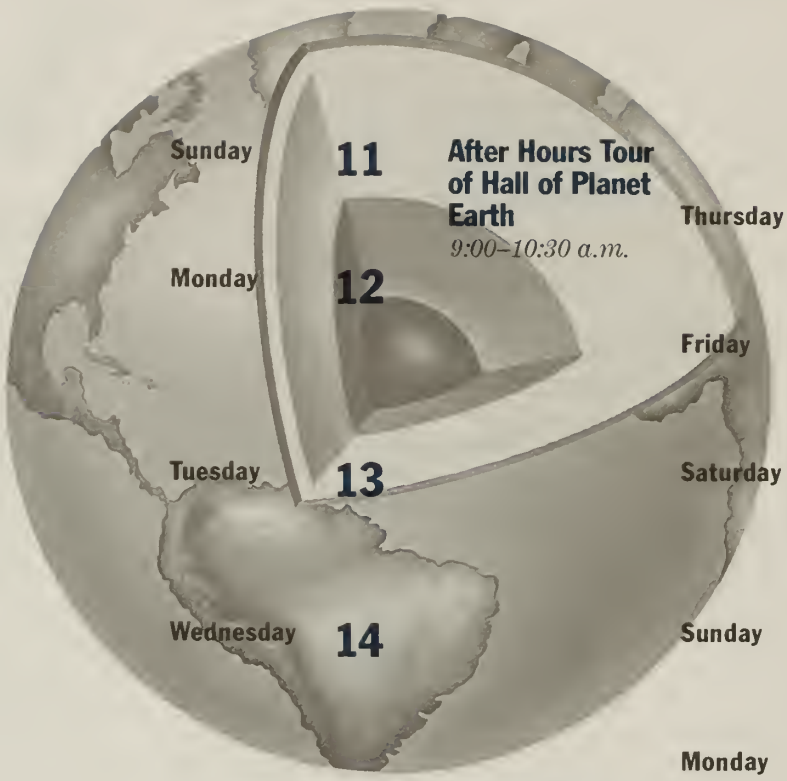
Pamela Popeson, artist and former director of the Museum's Fossil Reproduction Department, will teach this class which is suitable for all ages.

Edith C. Blum Lecture Room. Cost: $38 for adult and child—members only. Program Code: MM7-3 (1:00 p.m.) or MM7-4 (3:00 p.m.).

july

Current Exhibits

Epidemic! The World of Infectious Disease
Gallery 3 through September 6
The Endurance: Shackleton's Legendary Antarctic Expedition
April 10 through October 11



Thursday **1**

Friday **2**

Saturday **3**

Sunday **4**

Monday **5**

Tuesday **6** **Summer Institute on Earth Sciences**

Wednesday **7** **Summer Institute on Earth Sciences**

Thursday **8** **Summer Institute on Earth Sciences**

Friday **9**

Saturday **10** **After Hours Tour of Hall of Planet Earth**
9:00–10:30 a.m.

Sunday **11** **After Hours Tour of Hall of Planet Earth**
9:00–10:30 a.m.

Monday **12**

Tuesday **13**

Wednesday **14**

Thursday **15** **The Geology of Western New Jersey**
8:30 a.m.–5:00 p.m.

Friday **16**

Saturday **17** **Minerals and Gems**
Workshop
10:30 a.m.–3:00 p.m.

Sunday **18** **A Duke Ellington Tour**
1:30–3:30 p.m.

Monday **19**

Tuesday **20** **Exploring Dinosaurs in Connecticut**
8:00 a.m.–6:00 p.m.

Wednesday **21**

Thursday **22**

Friday **23**

Saturday **24** **A Nest of Dinosaur Eggs: A Paper Casting Workshop**
1:00 or 3:00 p.m.

Sunday **25** **After Hours Tour of Hall of Planet Earth**
9:00–10:30 a.m.

Monday **26**

Tuesday **27**

Wednesday **28**

Thursday **29**

Friday **30** **Coney Island...the Nickel Empire**
6:30 p.m.

Saturday **31**

august

Sunday 1

Monday 2

Tuesday 3

Wednesday 4

Thursday 5

Friday 6

Saturday 7

Sunday 8

Monday 9

Tuesday 10 **Wild Walk Staten Island**
9:00 a.m.–5:30 p.m.

Wednesday 11

Thursday 12

Friday 13

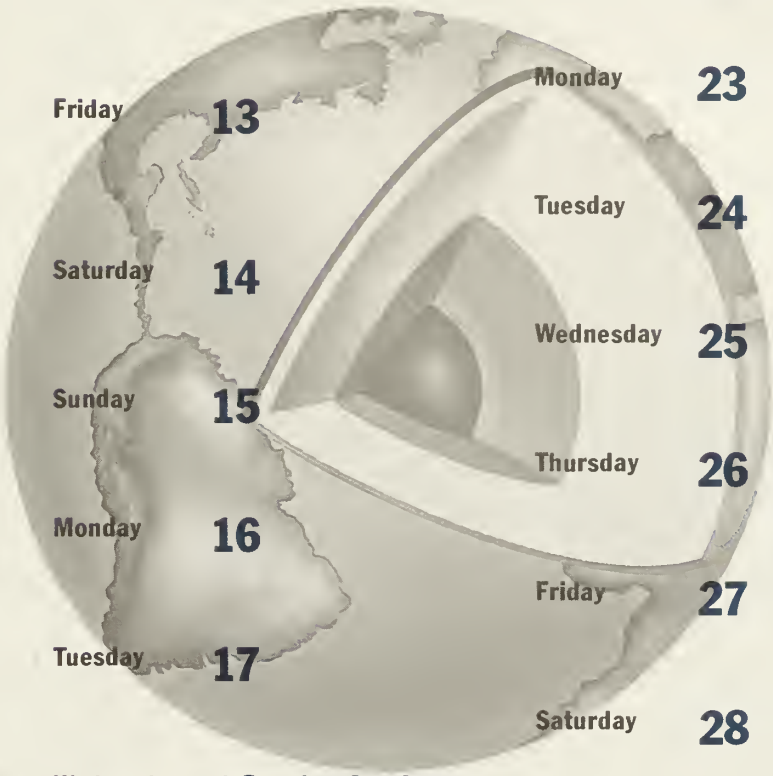
Saturday 14

Sunday 15

Monday 16

Tuesday 17

Wednesday 18 **Ice Age Long Island**
8:00 a.m.–7:00 p.m.



Thursday 19

Friday 20

Saturday 21 **The Life and Times of the South Street Seaport**
10:00 a.m.–12:00 noon

Sunday 22

Monday 23

Tuesday 24

Wednesday 25

Thursday 26 **Exploring the Delaware River Valley**
8:00 a.m.–6:00 p.m.

Friday 27

Saturday 28

Sunday 29

Monday 30

Tuesday 31

Phone Numbers at Your Fingertips

Museum Information	(212) 769-5100
Membership Office	(212) 769-5606
Planetarium Information	(212) 769-5900
Members' Birthday Parties	(212) 769-5154
Education Department	(212) 769-5304
Planned Giving Office	(212) 769-5119
Discovery Tours	(212) 769-5700
*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
Website	http://www.amnh.org

For program reservations, please call (212) 769-5200

Summer Institutes for Educators

Professional development for teachers has long been a priority of the Museum's Education Department. Throughout the year, the department offers an extensive series of programs–some for college credit, others for Board of Education beginning teacher credit. All programs focus on content, instructional use of technology, teaching and learning strategies geared to developmental stages and inquiry approaches, and teaching and learning standards. But for the past few years, a new, more intensive offering has become part of the programming: Summer Institutes for Educators.

Dr. Maritza Macdonald, Coordinator of Professional Development Initiatives, describes summer institutes as "working parties," hosted by the education department in partnership with schools and universities in NYC and around the country, and colleagues in other museum departments. Participants are teachers and educators from all school levels, hailing from New York, across the country, and around the world, who are interested in the ways a science-rich, "informal education" institution can enrich learning in schools and universities.

For the past three years, the department has offered Summer Institutes that focus on the Museum's research and pedagogy, its new permanent and temporary exhibits, and Museum-related work in schools and universities. For example, in 1997, we focused on Evolution; in 1998, on Biodiversity. In 1999, we will focus on the Gottesman Hall of Planet Earth and the Shackleton Exhibit. Next summer, we will also offer evening institutes designed to maximize the learning possibilities in the Hall of the Universe and under the New York sky.

Highlights to the Summer Institute on Earth Sciences, July 6, 7, and 8th:

The first day will focus on *Exhibitions, Science Research, Teaching and Learning at AMNH*. It will feature the Gottesman Hall of Planet Earth; the research and collections of scientists from the Department of Earth and Planetary Sciences; teaching with objects, using exhibits, dioramas, computers and Museum Websites, guides to the halls, media, such as film and television offered by the Margaret Mead Film program, and other Museum resources.

The second day's focus will be *Scientists and Teachers on Expeditions, Here, There, and Everywhere*, and will feature opportunities for teachers to take part in research expeditions. Presentations will include scientists and NYC teachers who participated or will participate in the Summer 1998 expedition to recover the Blacksmokers, now on display in the new Hall of Planet Earth, NSF sponsored expeditions to the Polar Regions, and the upcoming Reef Watch expedition that will bring a team of teachers that have been implementing the Museum–developed Middle School Curriculum, "Biodiversity Counts." Institute participants will also take virtual expeditions on the Museum's website and actual expeditions to Central Park and Riverside Park.

The final day will focus on *Planet Earth in the Lives of Students, Teachers, Teacher Educators, and Policy-makers*, and will feature the Museum's role in the curriculum and

program listings

ystemic efforts to reform science eaching and science teacher ducation. The day includes a panel liscussion and workshops by students, eachers, the NYS Education lepartment, NYC Board of Education nembers and a CUNY representative, n addition to a live "Earth Science" elecast from the Discovery Channel.

These institutes are being offered with generous support from John and Carol Macomber.

n addition to its summer institutes, he Education Department is working n close partnership with other rganizations that are engaged in ystemic science education reform fforts.

During July 19–22, the AMNH, in ollaboration with The New York imes, Liberty Science Center, Museum of the City of New York, and ace University, will offer a four–day nstitute on the theme *Exploring Diverse Environments: Integrating nformal Learning into the Curriculum*. July 19 at AMNH, July 0 at MCNY, July 21 at Liberty cience Center, and July 22 at The New York Times, 9 a.m.–1 p.m.

From August 2-13, the AMNH, in ollaboration with Woodrow Wilson National Fellowship Foundation, yson College of Pace University, and NYCBOE Office of School Programs, will offer the second part of a wo–week *Institute on Biodiversity* to selected group of 7–12 grade NYC Biology Teachers.

From August 23-25, the AMNH, in ollaboration with NYC Urban ystemic Initiative, will offer a three-lay institute on *Life and Earth Sciences for Middle School Bilingual Teachers*, 9 a.m.–1 p.m.

For more information on any of these rograms, contact Maritza Macdonald, t 212-769-5182.

Department of Education Lectures and Field Trips

Answers in the Ice: Modern Antarctic Research Explorers Unlock Clues to Earth's Past History

Four Wednesdays starting June 16, 7:00–8:30 p.m.

Free. Kaufmann Theater

This lecture series, co-sponsored by the National Science Foundation, examines major areas of polar research.

July 7 Life at the Pole
Helleary D. Everist, deputy director, Division of Social Behavioral and Economic Research, National Science Foundation.

Arthur Marks Walking Tours

Tours are from 1:30 to 3:30 p.m. except where noted. Fee: $12 per tour ($10 members, students, senior citizens).

A Duke Ellington Tour
Sunday, July 18

In honor the 100th anniversary of jazz legend Duke Ellington's birth, we will start on Riverside Drive at 106th Street (Duke Ellington Boulevard) and explore the history and role of ethnic communities and other groups in the development of the City.
Program Code: ED99314X.

After Hours Tours in the Gottesman Hall of Planet Earth

Tuesdays, July 6, or 20, 7:00–8:30 p.m.
Program Code: ED99331X.

Wednesdays, July 7, or 21, 7:00–8:30 p.m.
Program Code: ED99332X.

Thursdays, July 8, or 22, 7:00–8:30 p.m.
Program Code: ED99333X.

Saturdays, July 10, or 24, 9:00–10:30 a.m.
Program Code: ED99334X.

AMNH

Hall of Planet Earth

Sundays, July 11, or 25, 9:00–10:30 a.m.
Program Code: ED99335X.

Fee: $12 per tour ($10 members, students, and senior citizens). Please indicate dates desired. Limited to 25 persons.

This permanent exhibition highlights earth processes such as earthquakes, volcanism, rock deformation, climate change, and the formation of economically useful earth resources. Opening in June 1999, tours will focus on the major elements in the hall and explain the key concepts and processes that are illustrated.

Meet Jim Webster,
a volcanologist at the American Museum of Natural History

Q. How can you predict if a volcano is going to erupt?

A. One way geologists predict eruptions is by studying earthquake activity beneath or near active volcanoes. If there's an earthquake below a volcano, it may mean that pressure is building up. Geologists also look at the shape of the volcano's peak. When some volcanoes fill up with magma, they inflate like a balloon, and the angles of their slopes can change. See photo B of Mount Saint Helens on the left.

Q. If volcanoes can be so dangerous, why do people live near them?

On this volcano in Indonesia, Jim and his team wear gas masks to protect them from poisonous volcanic gases.

A. There are at least three reasons. People need to live near water. Since many volcanoes are very tall, clouds gather near their peaks. The clouds cause lots of rain and snow to fall on or near the slopes of the volcanoes. The rain and snow provide a steady water supply for people who live nearby. Also, when volcanic ash and rock break down, they become part of the soil. The minerals make the soil rich and good for farming. Some countries, such as Indonesia, have large populations and a small amount of land, so the people there have no choice but to live near active volcanoes.

From *Our Dynamic Planet*, a magazine for children created by the American Museum of Natural History's National Center for Science Literacy, Education, and Technology, which can be found on the Museum's Web site at www.amnh.org.

program listings

The Life and Times of the South Street Seaport

Saturday, August 21, 10:00 a.m.–12:00.

Fee: $12 ($10 members). Program Code: ED99328X. Limited to 25 persons.

Visit New York Harbor's eleven-square-block historic district of 18th- and 19th-century buildings and once thriving port clotted with clipper ships, sailors, and soup kitchens.

Gottesman Hall of Planet Earth Workshops

In this series of adult workshops, unusual specimens from the Museum's collections, demonstrations, simple exercises, and a tour of the new Hall of Planet Earth enrich a hands-on geological learning experience.

Rocks and the Earth

Saturday, July 10, 10:30 a.m.–3:00 p.m.

Fee: $40 (includes sandwich lunch; $36 members, students, senior citizens). Limited to 25 persons. Program Code: ED99336X.

Explore the Carbon Cycle

Saturday, July 10, 10:30 a.m.–3:00 p.m.

Fee: $40 (includes sandwich lunch; $36 members, students, senior citizens). Limited to 25 persons. Program Code: ED99337X.

Minerals and Gems

Saturday, July 17, 10:30 a.m.–3:00 p.m.

Fee: $40 (includes sandwich lunch; $36 members, students, senior citizens). Limited to 25 persons. Program Code: ED99338X.

Meteorites and the Earth

Saturday, July 24, 10:30 a.m.–3:00 p.m.

Fee: $40 (includes sandwich lunch; $36 members, students, senior citizens). Limited to 25 persons. Program Code: ED99339X.

museum notes

Foundation Focus

For over sixty years, the Hayden Planetarium at the American Museum of Natural History provided an extraordinary visual experience of the universe for millions of visitors from all over the world, and, most of all, for generations of New Yorkers.

It was through the generosity of Charles Hayden, an M.I.T. engineering graduate turned businessman, that the Museum was able to acquire the technology–advanced for its day–that was necessary to present the sky shows, and, in October 1935, to open the doors of the Planetarium.

When he made his contribution, Charles Hayden stated: "I believe that the Planetarium is not only an interesting and instructive thing, but that it should give a more lively and sincere appreciation of the magnitude of the universe and the belief that there must be a very much greater power than man which is responsible for wonderful things which are daily occurring in the universe."

Charles Hayden Foundation

Since Mr. Hayden's first namesake gift to the Museum, the Charles Hayden Foundation, established in 1937, has generously supported many other Museum projects. Now, thanks again to the Foundation's support—a magnificent $5 million grant—the Museum will open a new Hayden Planetarium, offering remarkable experiences of the cosmos through the use of the most advanced technology available. Gilda Wray, president of the Charles Hayden Foundation, notes: "The Foundation's recent gift is in recognition of the strong interest Mr. Hayden had in the Museum during his lifetime, and the long historical relationship between the Hayden name and the Planetarium."

As Charles Hayden would have wanted, the new Hayden Planetarium, and its related educational programming, will continue to open the eyes and minds of millions of visitors to the workings of the universe and our place in the cosmos.

Members' Birthday Parties

Due to Museum construction, birthday parties for members at the supporter level ($300) and above will not be available from June 1 through October 1, 1999. We apologize for any inconvenience and will start scheduling October parties on September 1.

Call for Volunteers

In anticipation of the opening of the Rose Center, the Volunteer Office is looking for candidates for two programs:

First, the department is designing an Earth and Space Explainer Program similar to the Fossil Explainer Program, which currently operates on the fourth floor in our fossil collections. The Earth and Space Explainers will eventually be a well–trained corps of volunteers who work in the Hall of Planet Earth, the Hall of the Universe, and all other areas in the Rose Center. They will be trained in astronomy and earth and planetary science, with specific training related to the objects on display. Training will occur in the evenings starting in October. What you need is the desire and ability to learn coupled with strong people skills. In addition, if interested, you will be required to make a 2–year commitment. We encourage potential candidates to call the Volunteer Office and state specifically that they have interest in this program. (212) 769-5566.

Second, the Museum currently uses approximately 130 volunteers to staff four information desks. The volunteer office is seeking additional staff to work the two new desks that will be opening in the Rose Center. Applicants must be able to commit to a four hour shift per week (or every other week, if you work on the weekends), must be willing to work at any of the six desks throughout the Museum, and must have excellent people skills and genuinely like working with visitors. If interested, call the Volunteer Office at 769–5566 and ask for an application.

Museum Hours

Exhibition Halls

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

The Museum Library

Tues. - Fri.	11:00 a.m. - 4:00 p.m.

Museum Dining

Diner 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.

Natural Science Center

There are many wild places in the New York area, and the Center features these habitats' 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.

The Museum Shop

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

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.

Central Reservations Cou

Rotunda
AM. MUS. NAT. HIST. LIBRARY
Received on: 06-29-99

Program Name/Date # Members

_____

_____

_____

Total $

Mr./Mrs./Miss/Ms.

Address

City State Zip

Telephone (Day) (Evening)

Membership No.

❑ Check ❑ Am.Ex. ❑ Visa ❑ Master Card

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 above 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.

Entrances

During Museum hours, visitors can enter the building through the 77th Street entrance, or the first- and second-floor Roosevelt Memorial Hall entrances (79th Street and Central Park West). The subway entrance is temporarily closed for construction. 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.

American Museum of Natural History

Membership Department
Central Park West at 79th Street
New York, New York 10024-5192

70
52N5
24
. 8
ptember
99

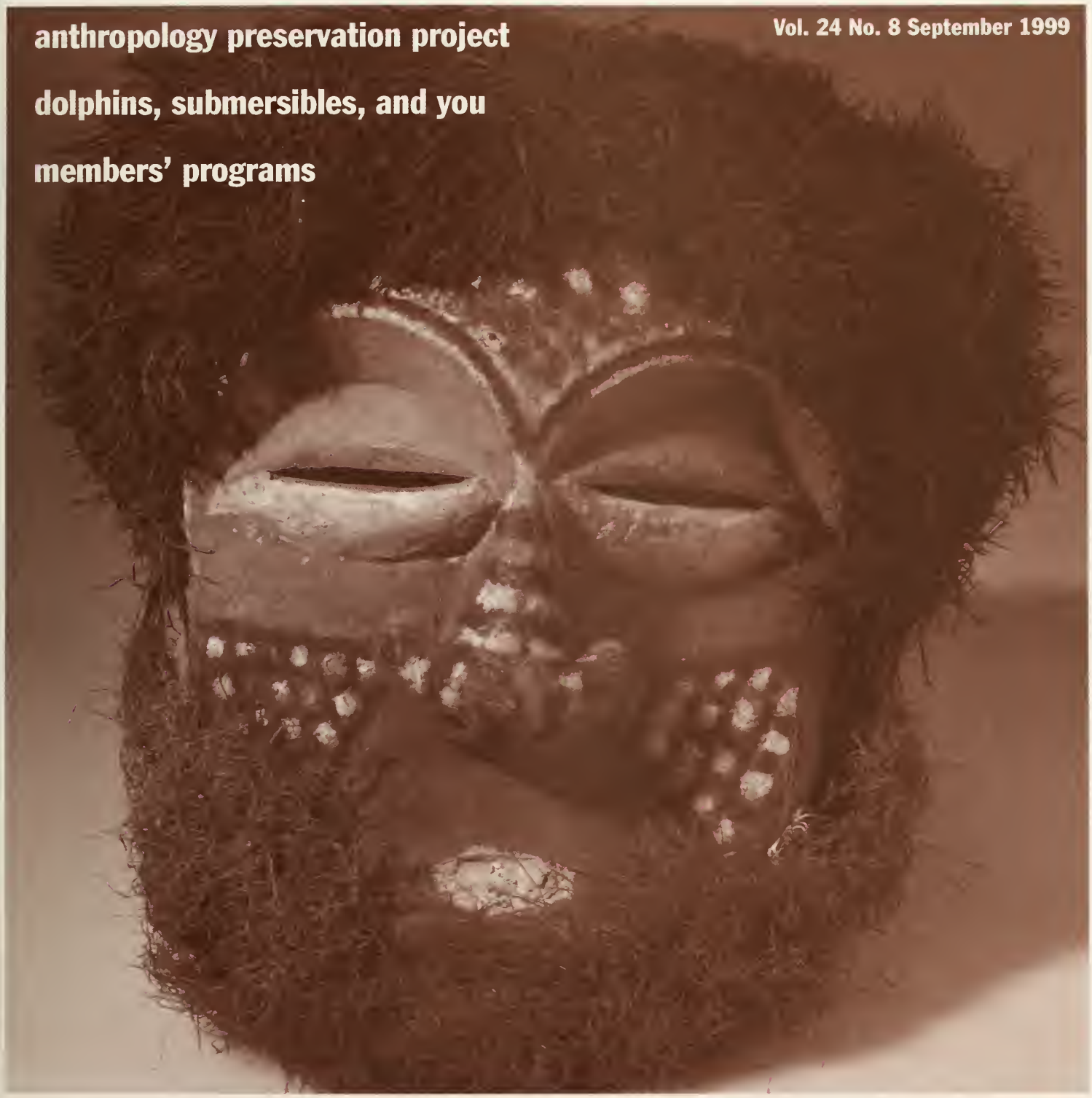
Rotunda

Vol. 24 No. 8 September 1999

anthropology preservation project

dolphins, submersibles, and you

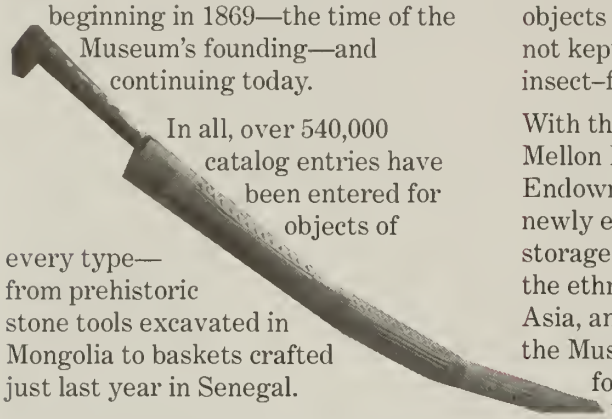
members' programs



American Museum of Natural History Members' Newsletter

the art of preservation

One of the Anthropology Department's most important missions is the preservation of the archaeological, ethnological, and physical anthropology collections that have been assembled from around the world by Museum personnel, beginning in 1869—the time of the Museum's founding—and continuing today.



In all, over 540,000 catalog entries have been entered for objects of every type—from prehistoric stone tools excavated in Mongolia to baskets crafted just last year in Senegal.

But the objects themselves don't tell the whole story. Of equal importance is the documentation accompanying them, often found in the form of field notes and correspondence. Detailing when and where the objects were collected and how they were used, this data is invaluable to the hundreds of anthropologists and art historians who travel to the Museum to do collections–based research for professional journals, popular publications, academic theses, or exhibitions at their home museums.

In 1978, the Museum began a 25–year program to build new facilities for the long–term preservation of the ethnology collection, which was chosen first in the series of preservation projects because of its organic nature.

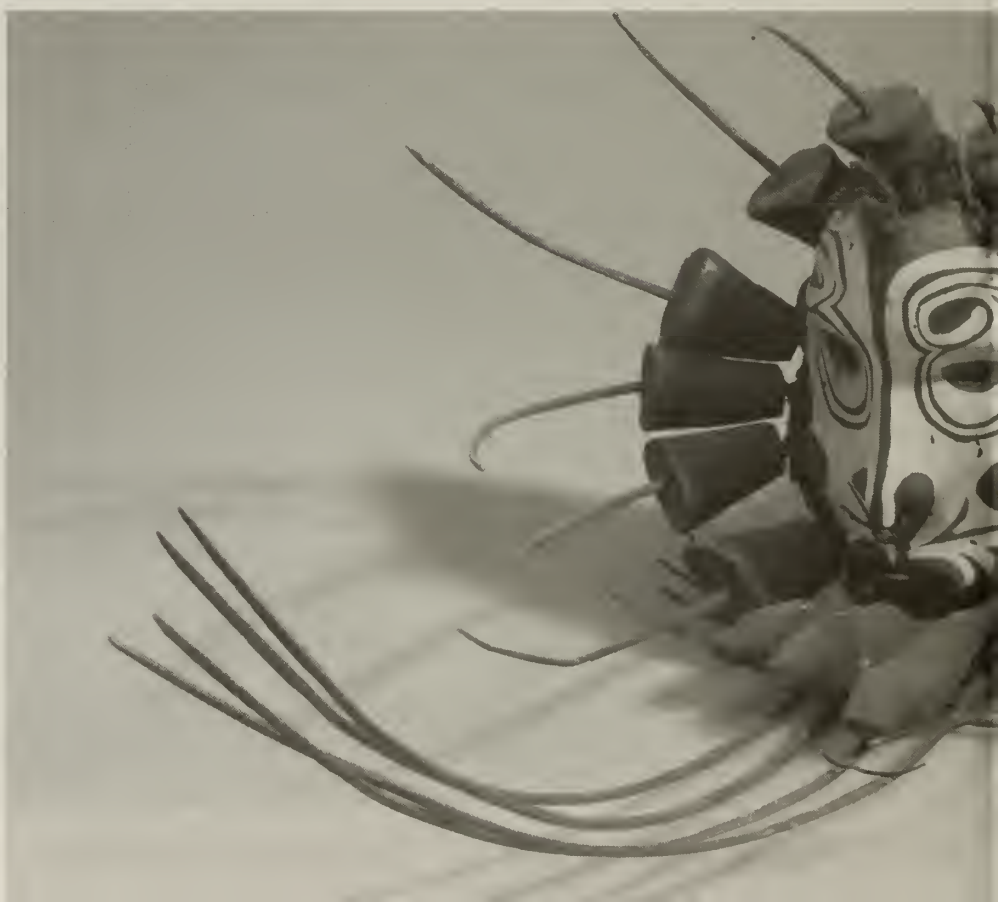
Unlike archaeological collections, which are composed primarily of stone and ceramic objects removed from the earth, ethnology collections involve the study of living peoples, so the majority of the objects are made of less stable organic materials. Margaret Mead, for example, worked among Samoans, Admiralty Islanders, and the Mundugumor, Arapesh, Iatmul, and Tchambuli peoples of New Guinea. While on those islands, she collected wood figures, bark–cloth garments, feather headdresses, and objects made of hide and fur. The objects she collected suffer if they are not kept in climate–controlled, insect–free environments.

With the support of The Andrew W. Mellon Foundation and the National Endowment for the Humanities, newly equipped and climate-controlled storage facilities have been built for the ethnology collections from Africa, Asia, and North America. (Currently, the Museum is building a new facility for the South American and Pacific ethnology collections.)

This is a Herculean but nonetheless essential task, for the objects remain a resource to be used again and again as new questions are asked about the human experience.

These massive construction projects successfully addressed the problem of how best to preserve the ethnology collections, but what of the associated documentation? How could this data be made more usable for researchers?

From the project's inception, it became immediately clear that the 130–year–old manual catalog system was inadequate to handle the increasing research and exhibition uses of the collection. For example, to learn how many feathered basketry headdresses Herbert Lang collected when he worked among the Mangbetu



people of the Congo in 1910, a researcher would have to manually page through difficult old catalogs and tally the number. To correct this, the data associated with the objects in the ethnology collection was computerized as the collections were moved into new storage facilities. For every object, the catalog number, accession number, provenance, dimensions, materials, and donor's name were laboriously entered into the database. The work could be tedious, but, in the end, it was extremely satisfying for all that it would accomplish: for the first time, researchers could ask many questions that could be answered with all the speed expected of modern technology.

Cover: Mask from the Belgian Congo. Left: Moroccan knife and sheath. Above: Armadillo basket from British Guiana. Below: Dancing bustle from New Guinea. Back Cover: Marajoara jar from Brazil.

In the past, before the new system was implemented, it was difficult to locate objects. The old attic storerooms were broadly labeled "China", or "Plains Indians", or even, incredibly, "African Basketry," but once someone got into the storeroom, it was largely up to one's experience and intuition to find what one was looking for. On a bad day, it could take hours. During a bad week, it could take days.

Now, every object's computer record contains a field with the deceptively simple name "storage location," which precisely identifies the tray where the object resides. To anyone who worked with the collections before they were rehoused and their data computerized, the new system is a quantum leap forward from the old days.

In 1989, with funding from the New York State Council on the Arts, the Museum began to greatly enhance the already–remarkable computerized database with the implementation of a system for digitally imaging objects, whereby a filmless camera could "capture" images of objects and save them as computer files.

After researching various options, the department decided to use a video camera to capture digitized still–frame images of the artifacts. This allowed the photographer to view all changes to the image on the computer monitor in real time. Adjustments to lighting, color, contrast, and brightness were made prior to storing, ensuring that the image would be a faithful and detailed representation of the original.

Now, when accessing the record of an object from either of these collections, a researcher is also treated to a color image of the object. (If, for instance, the object is a box carved on four sides, each side is imaged.) Eventually, the Museum plans to add images of the entire collection to the database.

With major funding from the National Endowment for the Humanities, almost 100,000 objects from the North American and Asian ethnology collections have been imaged. With still more funding from the N.E.H., a large part of the African ethnology collection is about to be imaged.

Given the number of objects the anthropology collections database encompasses, the system is one of the most advanced in the country, proving that the Museum is committed to preserving its anthropology collections as irreplaceable cultural documents that allow us a window into the lives of the people who produced them.

A Web database of the collection has been designed and implemented, ensuring that the American Museum's anthropology collection—a national treasure—will be globally accessible through the Internet. You can find it at http://anthro.amnh.org/.

rotunda
ISSN 0194-6110
Vol. 24, No. 8, September 1999
John Davey, Editor
Rosemary Caulk, Director of Membership
Ellen V. Futter, President
Anne Sidamon-Eristoff, Chairman
Rotunda is published monthly, except for a combined issue in July/August, by the Membership Office of the American Museum of Natural History, Central Park West @ 79th Street, New York, N.Y. 10024-5192. Telephone: (212) 769-5606. Museum membership of $45 per year and up includes a subscription to *Rotunda*. © 1999 American Museum of Natural History. Periodical postage paid at New York, N.Y., and at additional mailing offices. Postmaster: Please send address changes to *Rotunda*, Membership Office, AMNH, at the above address. Printed in the USA.

events & exhibitions

The National Center for Science Literacy, Education, and Technology presents ASIAQUEST

Join us at the Museum for a Professional Evening for Teachers on September 9, from 4:00 p.m.–7:00 p.m.

This workshop provides a comprehensive introduction to AsiaQuest, a five-week on–line education expedition that offers to take your class on a journey along the most fabled trade route of all time—the Silk Road, a trail that has linked Asia and Europe for more than 1,000 years.

Topics of the Teachers Evening include how to use the Internet as an educational resource and how the activities in the AsiaQuest curriculum support science, language arts, mathematics, and social studies standards. Call 212-769-5200 to register or for more information.

You can preview the AsiaQuest site at http://www.amnh.org/education/, beginning September 27. Then, join the team October 4–November 5, as they journey the Silk Road.

Fall Graduate Courses for Teachers

College courses in natural history and anthropology are offered for teachers by the Museum's Department of Education in cooperation with the Graduate School of Education, The City College of New York. Course content is responsive to National Teaching and Learning Standards for Life and Earth Sciences, Social and Global Studies, and History. Course materials include Teachers Guides for using Museum exhibitions and technology resources. Each course runs for 15 sessions, awards three credits, and costs $225. Registration for fall courses will take place September 7–10. For course registration and information, please call 212-769-5200.

Vanishing Forests

A survey of forest types of North America and the world, enhanced with visual material and visits to forest exhibits in the Museum. The course will explore basic concepts relating to forests, the concern about deforestation, and tactics being used to combat it. Tuesdays, beginning September 14, 4:20–6:00 pm. Instructor: William Schiller

Introduction to Ecology

Lectures and curriculum materials highlighting the new Hall of Biodiversity will provide an overview of the important interrelationships between plants, animals, and their environments. Lessons will include: interpreting habitat exhibits, exploring food chains, behavior, and population dynamics; examining problems such as pollution and endangered species; and understanding the importance of biodiversity. Wednesdays, beginning September 15, 4:20–6:00 p.m. Instructor: William Schiller

Wild Flowers of Forest, Meadow, and Stream

An explanation of floral diversity and what it reveals about nature. The focus will be on flowers native to the New York area. Visual aids used to discover important interrelationships among wild flowers, people, and the environment will include slides, film, Museum exhibits, herbarium specimens of native lilies, roses, orchids, carnivorous plants, and others. The class will include a field trip into Central Park. Thursdays, beginning September 16, 4:20–6:00 p.m. Instructor: William Schiller.

Introduction to Human Origins

A physical anthropology course that studies the mechanics of evolution, the nature of the fossil record, the relationship between cultural and human evolution, and the reconstruction of the ways of life of early humans. Course activities will include examining casts from the teaching collection, lab sessions on bones, and sample field trips and curriculum guides to relevant Museum halls. Wednesdays, beginning September 15, 4:20–6:00 p.m. Instructor: Ann Prewitt.

Professional Development Courses: Fall 1999

Informal Science for Teaching Natural and Physical Sciences

Weekend course focusing on informal science learning and the use of science–rich institutions to support curriculum and learning standards. Saturday session at the Museum and Sunday session at the New York Hall of Science. A one–credit or noncredit course from Teachers College, Columbia University. For Registration, contact Dr. Robert Steiner at Teachers College, 525 West 120 Street, New York, NY 10027, 212-678-3810.

members' programs

Earth and Life Sciences Teacher Workshop: Focus on Halls of Planet Earth and Biodiversity

Friday, September 24, 4:00–7:00 p.m.; Saturday, September 25, 10:00 a.m.–3:00 p.m. Grades 3–8. Blum Classroom/Linder Theater. Register by September 15. Fee: $35.

Earth and Life Sciences Teacher Workshop: Planet Earth, Biodiversity, and "Biodiversity Counts"

Friday, October 1, 4:00–7:00 p.m. High School level. Calder Laboratory. Register by September 20. Fee: $20.

Exploring the Unknown Sea

Arriving in mid–September, a near–life–size model of the deep–sea submersible *Shinkai 6500*, used to conduct geological research by observing and sampling the sea bottom, will be on temporary display at the entrance to the Gottesman Hall of Planet Earth. A history of the Earth's seismic activity is stored in sea sediments, which have been accumulated for hundreds of millions of years. Using submersible technology like the *Shinkai 6500*, scientists can sample these sediments, which help tell the planet's seismic story, and predict seismic and volcanic activities to come.

FREE Member Preview

On Wednesday, September 15, from 7:30–9:00 p.m., Museum members will have an exclusive chance to take an early cinematic "swim" with *Dolphins*, an upcoming IMAX feature. Come get a sneak–peak at a rough–cut of the soon–to–be–released large–format film that follows these fascinating mammals from the Bahamas to Patagonia, investigating everything from their foraging techniques to their complex systems of communication. *Dolphins*, which features music from Grammy–winning artist Sting, is being produced in association with the National Wildlife Federation and with major funding by the National Science Foundation. Free to members with tickets. Program Code: SF9-5.

Did You Know?

On one side of the Museum's Hall of Vertebrate Origins, you may notice a corridor with benches set along a red-brick wall. It's a nice spot to take a break and contemplate one's place on the long timeline of vertebrate evolution. However, besides serving as a pleasant backdrop, the wall happens to be one of the exterior walls of the Museum's first permanent building, built between 1874 and 1877. The Museum has "preserved" the section of red–brick wall for its architectural and historical value. Visible in the wall-section are "cuts," or deep indented spaces, in front of the narrow original windows. These highlighted the Museum's first exhibits, illuminating them with natural light.

Considering its surroundings, one would be forgiven for thinking of it as the Museum's own backbone.

Hall Tour

The Tell Tale Tour...a night of Edgar Allen Poe

Friday, October 29, 6:30 p.m.

It is the season of ghosts, lost souls, and eerie happenings. It is the season of Edgar Allen Poe. Once again, the master's stories will rise from the Museum's tombs and cast shadows to chill you to the bone. Join fellow members and venture into the darkest reaches of Poe's imagination. Your host and storyteller, Robert Campanile, promises quickened heartbeats and breathless moments. Program Code: MM10-1. Free.

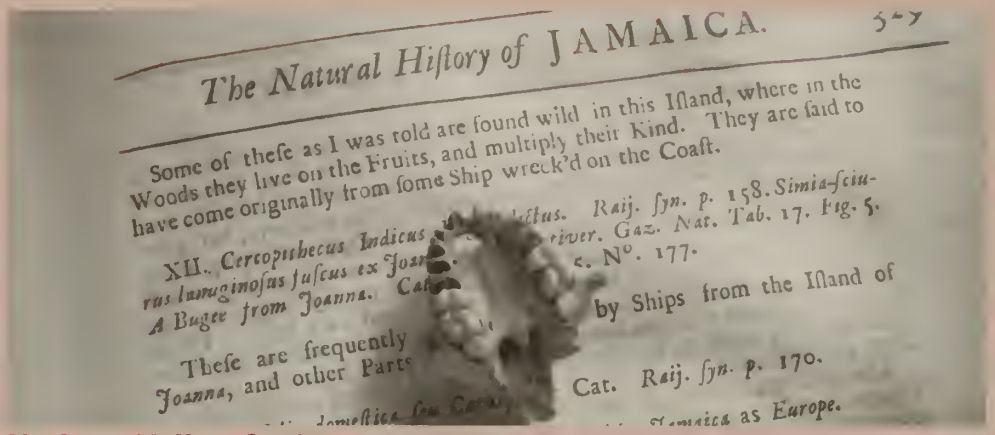
The Night the Stars Fell

Wednesday, November 3, 7:00 p.m.

The Leonid meteor shower, at its peak, is the grandest display of celestial fireworks known to man. Over the past several years, the Hayden Planetarium's Joe Rao has made the Leonid meteors his own special territory. Every year, for two or three nights in mid-November, a modest number of meteors fall—perhaps eight or ten in an hour's watch. In 1999, which is a favored year, the Leonids may fall by the hundreds, the thousands, or even the tens of thousands per hour. This in–depth lecture by Joe Rao will prepare you for the mid–November arrival of the Leonids.

Cost: $8 members; $10 non-members. Location: Kaufmann Theater. Program Code: MM11-1.

members' programs


The Natural History of JAMAICA.

Some of these as I was told are found wild in this Island, where in the Woods they live on the Fruits, and multiply their Kind. They are said to have come originally from some Ship wreck'd on the Coast.

XII. Cercopithecus Indicus ... rus Imaginosus Fuscus ex Joan... A Bugee from Joanna. Cat...

...ius. Raij. Syn. p. 158. Simia-sciu... river. Gaz. Nat. Tab. 17. Fig. 5. ...c. N°. 177.

These are frequently ... by Ships from the Island of Joanna, and other Parts ...

Cat. Raij. Syn. p. 170.

...Jamaica as Europe.

Monkey (Xenothrix mcgregori) mandible
Denis Finnin

Hudson Valley Cruise

Saturday, October 16, 10:00 a.m.–2:00 p.m.

Survey the autumn foliage and learn about the geological underpinnings of the scenery and historic sites as we journey through the historic Hudson Valley. Guided by Sidney Horenstein, the Museum's coordinator of environmental programs, participants will cruise up the Hudson River, from Wall Street to West Point and back. The trip 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.

Program Code: ED99354X. Cost: $45 members; $55 non-members.

Halloween: The Tour!

Saturday, October 30, 6:30 p.m.

Do your dare celebrate the ancient holiday of All Hallow's Eve at the Museum? If you do, then you are in for a treat, or perhaps a trick! The Museum's annual Halloween Tour will take you through the largest haunted house in the city, closely pursued by its many spirits. You will make 13 stops, covering the history and symbols of Halloween. So bring your brave soul and wear a costume if you wish. We will provide the ghosts. Your caretaker for the evening will be "Count" Campanile.

Program Code MM10-11. Cost: Free.

Behind-the-Scenes in the Mammalogy Department

Tuesday, October 26 and Wednesday, October 27. Choice of tours, which begin at 5:30, 6:00, 6:30, 7:00 on both dates.

Venture behind closed doors with scientific staff at the Museum on a 90-minute tour to learn the inside story about work conducted by the Department of Mammalogy, the Museum's oldest department. AMNH scientists will talk about their research into the evolutionary relationships of mammals (both extinct and extant) in various habitats around the globe, work aimed at improving our understanding of the origins and diversity of the world's mammals and extending our knowledge about extinctions.

Members will explore the importance of specimen–based research as the basis for primary scientific literature.

See how specimens are processed, catalogued, and stored, and learn about the critical role the Museum's collections play in scientific research around the globe. Among the Mammalogy's quarter–of–a–million individual specimens are complete skeletons of gargantuan elephants as well as those of diminutive rodents and bats. A visit to the 120–year–old departmental library will highlight the importance of paper collections, such as original catalogues and fieldnotes.

Please note that these tours are not recommended for children under thirteen. There is much walking and stairs; please advise if accommodations for special needs are required.

Program Codes: Oct. 26th, 5:30, MM10-3; 6:00, MM10-4; 6:30, MM10-5; 7:00, MM10-6. Oct. 27th, 5:30, MM10-7; 6:00, MM10-8; 6:30, MM10-9; 7:00, MM10-10. Cost: $23–members only.

Previously Listed

Around the World in 80 Minutes

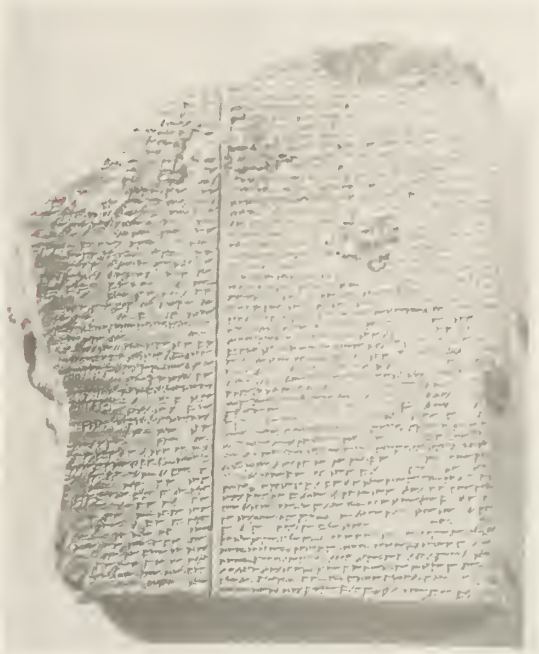
Friday, September 17, 6:30 p.m.

A free world tour!...hop, skip, and jump as we cover the seven continents, oceans, and islands in a whirlwind tour of our Earth's diversified environments. Twenty–five thousand miles in eighty minutes! Your balloonist will be Robert Campanile...move over, Jules Verne!

Program Code: MM9-1.

Museum Theater Event

The Epic of Gilgamesh



Miraculously preserved on 5,000–year–old clay tablets of the ancient Mesopotamians, the cycle of poems woven around the character of Gilgamesh, the great king of Uruk, is one of the great and probably oldest masterpieces of world literature. *The Epic of Gilgamesh* is the tale of one man's struggle against death. Encoded in his long journey are the dimensions that shape our existence: life, death, fear, courage, friendship, duty, and constant yearning. The epic story is a mixture of adventure, morality, and tragedy—a timeless tale that confronts the fundamental questions of humanity common throughout the centuries.

This multi–theatrical museum presentation, created and directed by Robert Campanile, will use oral interpretation, images, and sound to bring the ancient recitations to life. The cast of actors will recite from a composite of Sumerian and Babylonian texts, combining the best of scholarly and contemporary translations. Our production is an opportunity to transport yourself into the past for a taste of living history. More importantly, you can experience the roots and infinite powers of human imagination.

Limited Engagement: Friday, October 15 and Saturday,

October 16, 7:00–9:00 p.m., Kaufmann Theater

Admission:
$12 members
$15 non-members

Program
Code: MM10-1 or 2

september

Current Exhibits

The Endurance: Shackleton's Legendary Antarctic Expedition
April 10 through October 11

Wednesday 1

Thursday 2

Friday 3

Saturday 4

Sunday 5

Monday 6 LABOR DAY

Tuesday 7

Wednesday 8

Thursday 9 ASIAQUEST Teacher Evening
4:00–7:00 p.m.

Friday 10

Saturday 11

Sunday 12

Monday 13

Tuesday 14
Noah's Flood: An Inundation and Diaspora Around the Black Sea at 5600 B.C.
7:00–8:30 p.m.
Professional Development Course: Vanishing Forests
4:20–6:00 p.m.

Wednesday 15
Members' Preview of *Dolphins*
7:30–9:00 p.m.
Professional Development Course: Introduction to Ecology
4:20–6:00 p.m.

Thursday 16
Professional Development Course: Wildflowers of Forest, Meadow & Strea
4:20–6:00 p.m.

Friday 17
Around the World in 80 Minutes
Hall Tour
6:30 p.m.

Saturday 18

Sunday 19

onday **20**

uesday **21** **Professional Development Course: Vanishing Forests**
4:20–6:00 p.m.

ednesday **22** **Professional Development Course: Introduction to Ecology**
4:20–6:00 p.m.

hursday **23** **Professional Development Course: Wildflowers of Forest, Meadow & Stream**
4:20–6:00 p.m.

iday **24**

aturday **25** **Discovery Room**
12-4:30 p.m.

unday **26** **Discovery Room**
12-4:30 p.m.

onday **27**

uesday **28** **Professional Development Course: Vanishing Forests**
4:20–6:00 p.m.

Wednesday **29** **Against the Tide: The Battle for America's Beaches**
7:00–8:30 p.m.
Professional Development Course: Introduction to Ecology
4:20–6:00 p.m.

Thursday **30** **Professional Development Course: Wildflowers of Forest, Meadow & Stream**
4:20–6:00 p.m.

Phone Numbers at Your Fingertips

Museum Information	(212) 769-5100
Membership Office	(212) 769-5606
Planetarium Information	(212) 769-5900
Members' Birthday Parties	(212) 769-5154
Education Department	(212) 769-5304
Planned Giving Office	(212) 769-5119
Discovery Tours	(212) 769-5700
*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
Website	http://www.amnh.org

For program reservations, please call (212) 769-5200

program listings

Department of Education Lectures and Field Trips

Noah's Flood: An Inundation and Diaspora Around the Black Sea at 5600 B.C.

Tuesday, September 14, 7:00–8:30 p.m. Cost: Free. Program Code: ED00237L.

For thousands of years, the legend of a great flood has endured in the biblical story of Noah and in such Middle Eastern myths as the Epic of Gilgamesh. Few believed that such a catastrophic deluge had actually occurred. But now geophysicists have discovered an event that changed history, a sensational flood 7,600 years ago in what is today the Black Sea. Walter Pitman will discuss the archaeological, genetic, and linguistic evidence suggesting that the flood rapidly created a human diaspora that spread as far as Western Europe, Central Asia, China, Egypt, and the Persian Gulf. Pitman is a researcher at Lamont-Doherty Earth Observatory.

Against the Tide: The Battle for America's Beaches

Wednesday, September 29, 7:00–8:30 p.m. Cost: $12 ($10 members). Program Code: ED99218L.

Despite the creation of seawalls, breakwaters, jetties, bulkheads, and other devices, the world's sandy beaches continue to erode. Nowhere is this more visible than in the United States, where oceanfront construction has been proceeding at a fast and furious pace for decades. Cornelia Dean, science editor for the *New York Times*, will outline the global coastal management crisis as described in her new book, *Against the Tide*, and will probe the question of why these measures have failed to stop the inexorable march of coastal erosion—a natural and inevitable process.

Life in Extreme Environments

Four Wednesdays, October 13 to November 3, 7:00–8:30 p.m. Cost: $30 for series ($27 members); $12 each ($10 members). Program Code: ED99219L.

The diversity of environments on Earth does not include the entire range of habitats able to support life throughout our universe; however, it does provide a minimum set of conditions which we know that organisms need to survive. In the sixth annual Department of Earth and Planetary Sciences lecture series, four internationally known experts in earth and planetary science will explore the full range of possibilities on and off the planet. For additional information and a program, call 212-769-5176.

October 13—Submarine Hydrothermal Vent Environments: key to understanding ancient life on Earth and life on other solar bodies.

Dr. John Baross, associate professor, Oceanography, University of Washington

October 20—Prospects for Life on Europa

Dr. Christopher Chyba, the Carl Sagan chair for the Study of Life in the Universe at the SETI Institute and a consulting professor at Stanford University

October 27—Search for Life on Mars and Antarctica

Dr. Christopher P. McKay, research scientist, Space Science Division, NASA, Ames Research Center.

November 3—Strategies in the Search fo Life Beyond Earth: Can We Plan to Make Major Discoveries?

Dr. John R. Delaney, professor, Oceanography University of Washington

Mushrooms and Conifers, Mosses and Ferns

Four Mondays, October 18 to November 8, 2:30–4:00 p.m. Program Code: ED99221L.

or

Four Thursdays, October 14 to November 4, 7:00–8:30 p.m. Program Code: ED99222L.

Cost: $30 for series ($27.00 members); $12 each ($10 members).

Among the natural wonders and delights of life on Earth are the moist green tapestries of diverse ferns and mosses found in shady environments, sometimes studded with colorful arrays of mushrooms under towering conifers. Such landscapes and undersea algae gardens flourished long before the existence of flowering plants. This series of slide-illustrated lectures will examine the nature of this ancient diversity and its continue role in sustaining the web of life today William Schiller, lecturer in botany in the Department of Education, will focus on northeastern United States species and ecosystems.

* **Marvels of Seaweed Diversity**
* **Fern and Moss Diversity**
* **Biodiversity and Conifers**
* **The World of Mushrooms and Lichens**

Space, Time, and the Sacred in Indigenous Culture

Two Mondays, October 18 and 25, 7:00–8:30 p.m. Cost: $20 for series ($18.00 members); $12 each ($10 members). Program Code: ED99223L.

October 18–Concepts of the Sacred
October 25–The Sacred in Daily Existence

Some indigenous peoples believe that human life results from the interplay between culturally constructed worlds of form and time and a parallel, sacred reality that has neither form nor time. The latter sacred realm is considered the font from which all matter and human experience ultimately arise. The Australian Aborigines' dreamtime, the Navajos' concept of universal beauty, and the Tibetans' infinite void are metaphors for this all-pervading, unconditioned reality. The ways by which this union of the sacred and profane affect all aspects of indigenous life, from subsistence to the spiritual, will be explored in two vivid and informative slide lectures given by anthropologist Peter Gold. Gold is author of the groundbreaking book *Navajo and Tibetan Sacred Wisdom*, and was research assistant to Margaret Mead at the Museum.

Great Feuds in Science

Tuesday, October 19, 7:00–8:30 p.m. Code: $12 ($10 members). Program Code: ED99224L.

Some of the biggest breakthroughs in science have involved conflicts that raged over decades, even centuries. A number of concepts, such as the theory of evolution, introduced 140 years ago, are still being debated today. Starting with Galileo's battle with Pope Urban VIII and ending with Derek Freman's attack on Margaret Mead in our own day, popular author and lecturer Hal Hellman will present some of the major players on the scientific scene and the times in which they lived, bringing to life the personalities, the clashes, the ideas. Hellman is the internationally acclaimed author of twenty-six popular science books. His new book, *Great Feuds in Science: Ten of the Liveliest Disputes Ever*, has been chosen by amazon.com as one of the ten best nature/science books of 1998, and will be available for purchase and signing.

The Wonderful World of Butterflies and Moths: A Four–Part Seminar

Three Tuesdays, October 19 to November 9 (no class on November 2), 7:00–8:30 p.m. Cost: $25 for series ($22.50 members); $12 each ($10 members). Program Code: D99225L.

Eric L. Quinter, senior scientific assistant in the Department of Entomology, will present a short "course" covering many aspects of Lepidopterology–the science, study, and aesthetic appreciation of butterflies and moths. The program will examine a range of topics, including: butterflies and moths of the Northeast; butterfly gardening; taxonomy, and nomenclature; basic morphology, modern classification, diversity, and abundance worldwide, including biology and behavior; the scientist in the field and the role of the beginner/amateur; and conservation issues. Audience participation will be strongly encouraged!

Geology for Travelers

Three Thursdays, October 21, 28, and November 4, 7:00–8:30 p.m. Cost: $25 for series ($22.50 members); $12 each ($10 members). Program Code: ED99226L.

Sidney S. Horenstein, geologist and coordinator of environmental programs at the Museum, will present three slide lectures on basic concepts in geology, and will suggest how to apply them to popular travel destinations. A review and classification of the Earth's major landscapes and their underlying geological structures complete the survey.

October 21–Sources of Information and Basic Geological Principles
October 28–Rocks and their Features
November 4–Landscape Classification and Geological Structures

The American Eagle

Tuesday, October 26, 7:00–8:30 p.m. Code: $12 ($10 members). Program Code: ED99227L.

John Pezzenti, the first photographer to take pictures of eagles hatching in the wild, presents this lecture on the American icon, the bald eagle, featuring his unique photographs. He will discuss the effects of DDT on the reproductive system of eagles and how it nearly wiped out this American symbol. Credit is given to the many scientists and caring people who are the heroes in returning these birds to the skies. The talk also addresses the importance of fishing and roosting locations, as well as of clean air and water. Pezzenti's book *The American Eagle* will be available for purchase and signing.

program listings

Children's Workshops

Children should bring a bag lunch for three–hour programs.

Animal Puppets

Sunday, October 3, 10:30 a.m. to Noon (for age 5, each child with one adult). Cost: $15.

After moving like animals and drawing in the galleries, children will create stick puppets using a variety of materials. Presented by Judith Levy, who has taught at the Carnegie Museum of Art and runs an art school in Long Island.

Wildlife in Art

Sunday, October 3, 10:30 a.m.–1:30 p.m. (ages 9 and 10). Cost: $15.

Using exhibition background paintings and pottery, stone, and metal objects to discover wildlife art, children will explore the animal worlds of North America. Myths, legends, stories, and a visit to the Northwest Coast Indian Hall will allow discoveries of the connections between people and animals. Participants will sketch and create wildlife art in clay. Presented by Spanish bilingual educator Bonita Grandal, teacher & facilitator for N.Y. State Project Wild.

Fieldtrip to the Hudson River

Sunday, October 3, 10:30 a.m.–1:30 p.m. (Ages 9, 10 and 11).

Explore the marine life of the Hudson River, from its algae to its crabs, shrimp, snails, and fish. Starting off with a trip to the 79th Street Boat Basin to collect algae and other organisms, children will have an opportunity to look through microscopes at the tiny organisms that inhabit the river, have fun pressing algae, and will explore the Hall of Ocean Life. Taught by Leslie Day, environmental science teacher at The Elisabeth Morrow School, N.J.

Planet Earth: Field Trip to Sterling Mines

Saturday, October 16 (field trip), 9:00 a.m.–4:00 p.m. (Ages 11, 12 and 13). Cost: $50.

One of the richest mineral localities in the world is in our own backyard. Join us for a tour of the Sterling Hill Mine tunnels and Museum to learn about the geology of this site and the history of mining in the area. Part of this program will include a visit to the mine's Rainbow Room to observe the fluorescent minerals. Presented by Jay Holmes, after school program coordinator, department of Education.

Origami Birds

Sunday, October 17, 10:30 a.m.–1:30 p.m. (Ages 9 and 10). Cost: $15.

Start your fall bird-watching with a guided natural history field trip to the Halls of North American Birds and Birds of the World in a program on folding origami birds. Presented by Gay Merrill Gross, author of three books on origami, storyteller, and instructor for Origami USA and Science Development Programs, Inc.

A Whale's Tale

Sunday, October 17, 10:30 a.m.–11:30 a.m. (Age 4, each child with one adult). Cost: $10.

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 program will also include a film, a visit to the Hall of Ocean Life, songs, and a take–home activity sheet. Presented by Dayna Reist, early childhood instructor at Bank Street College of Education.

Weaving: A Navajo Arts and Craft

Sunday, October 24, 10:30 a.m.–1:30 p.m. (Ages 9 and 10). Cost: $15.

Weaving is an important part of the culture and history of the Navajo people. Learn the technique of weaving and the stories that go along with it. Children will look at a variety of fibers used to make cloth. They will untangle and spin fibers into yarn and weave on simple looms. Presented by Regina Kelly, associate professor of Environmental Studies at School of Conservation, Montclair State Univ., N.J.

A Day With The Dead

Sunday, October 31, 10:30 a.m.–1:30 p.m. (Ages 9 and 10).

Investigate the remains and symbols of the dead in a tour of the Museum's exhibitions. Children will learn about burial rituals and death–related ceremonies of different cultures. They will look at mummies, tombs, clothing, and create a craft project using bones to honor the dead in the Mexican tradition. Presented by Lisa Breslof, senior museum instructor, department of Education.

Evi-dents

Sunday, October 31, 10:30 a.m.–1:30 p.m. (Ages 9 and 10). Cost: $15.

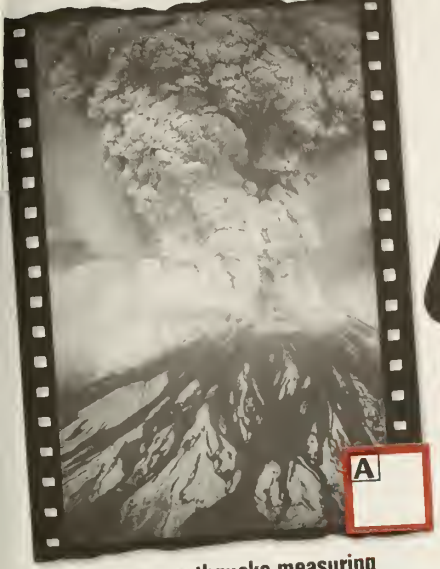
Children will learn about the importance of teeth for survival on a walking tour of the Museum, observing dinosaur and other animal teeth, participating in a brushing and flossing activity with models of human teeth, and handling human and animal skulls to compare their function. They will make impressions of animal teeth to take home. Come dressed in a favorite Halloween outfit. Presented by Iris Vardy-Strauss, a practicing orthodontist in New York City.

When you're hot, you're HOT!

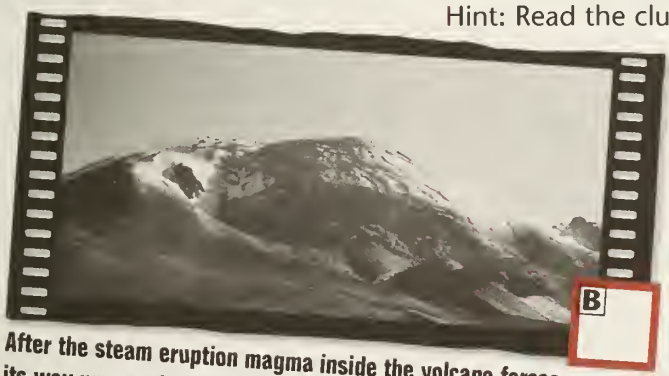
A Mighty Magma Mystery

For over 120 years, Mount Saint Helens, a beautiful snow-covered peak in Washington State, remained calm. Then, on May 18, 1980, people heard a loud explosion as hot rock, gas, and ash shot into the air. Mount Saint Helens, a sleeping but active volcano, had "woken up" and become an active volcano. Hot melted rock, called **magma**, forced its way up into the volcano and exploded out of the top and side. In just a few hours, the area surrounding the volcano had radically changed.

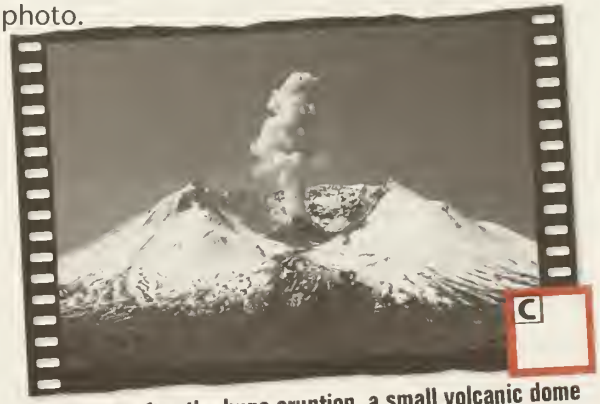
THE CHALLENGE: These photos of Mount Saint Helens were taken before, during, and after the eruption. **Can you figure out the correct order, from first to last?** Write the numbers 1–6 inside the boxes in the corner of each photo. Hint: Read the clues under each photo.



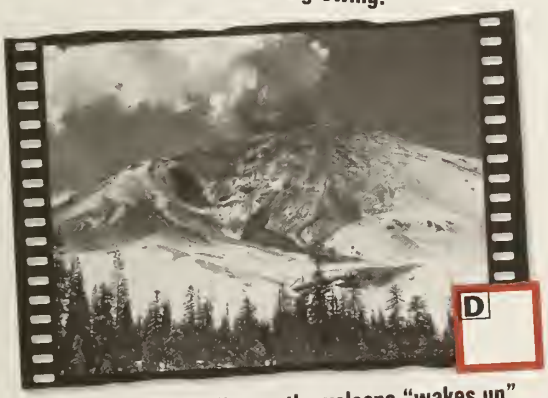
Shaken by an earthquake measuring 5.5 on the Richter scale, the bulge and nearby area slide away. At the same time, the volcano erupts, spewing ash and bits of rock 9 miles into the air. Sadly, 57 people and countless animals are killed.



After the steam eruption magma inside the volcano forces its way up, causing an enormous bulge. The bulge is now taller than a skyscraper and is growing!



Two years after the huge eruption, a small volcanic dome grows inside the original crater left by the huge eruption. Every now and then, it erupts in plumes of steam and ash. This plume is 3,000 feet high and can be seen from 50 miles away.



After 123 years of silence, the volcano "wakes up" with a steam eruption and several small earthquakes. These events happen because magma is moving from deep underground up into the volcano.

Before it erupted in1980, Mount Saint Helens was one of the most beautiful volcanoes in the cascades.

Right after the explosive eruption, the volcano is 1,500 feet shorter. The blast created a crater one mile wide.

Explore the latest eruptions at Volcano World!
http://volcano.und.nodak.edu

ANSWERS:
A)4 B)3 C)6 D)2 E)1 F)5

Activities on this page are from *Our Dynamic Planet*, a magazine for children created by the American Museum of Natural History's National Center for Science Literacy, Education, and Technology. *Our Dynamic Planet* can be found on the Museum's Web site at www.amnh.org. Print versions in English and Spanish are available In the Gottesman Hall of Planet Earth.

museum notes

Discovery Tour Travelers Provide for the Museum's Future and for Their Own Retirement

Bob and Marie Bergh love to travel. Since their first trip with the Museum in the early 80s, they have participated in eight Discovery Tours to destinations as diverse as the British Isles, the Black Sea, Scandinavia, the Caribbean, Greenland, Antarctica, the North Pole, the Middle East, India, and Southeast Asia.

Originally from Norway, Bob grew up on sailboats. Immigrating to the United States as a young man, he became an engineer at Union Carbide in New Jersey, where one of his proudest achievements was the development of oxygen masks that provided safe protection in combat and rescue situations. A career on land notwithstanding, over the years Bob has frequently chosen seafaring vacations, traveling by ship to many parts of the world he wanted to see.

For her part, Marie grew up in New Jersey and has fond memories of visiting the Museum as a child. Her love of travel grew out of her experiences as a commissioned officer in the U.S. Army and the U.S. Public Health Service. During World War II, she served in New Guinea, the Philippines, and the Admiralty Islands. Subsequently, she did tours of duty in various parts of the United States and with the Agency for International Development in Pakistan.

As they have enjoyed exploring the world on the Discovery Tours, Bob and Marie have increasingly come to appreciate the significance of the Museum's work. Therefore, when they retired and moved to Florida from New Jersey, they continued to maintain their Museum membership. In addition, they recently decided to provide for the Museum's future through a Charitable Gift Annuity. "We wanted to give to the Museum, especially because of what the Museum gives to children and young adults. We wanted to foster that and also have something for ourselves. With a Gift Annuity, we could help the Museum and add to our income."

A Gift Annuity is a contract between the Museum and the donor. In consideration of a contribution to the Museum of $5,000 or more, one or two people receive quarterly payments, part of which are tax-free, for the rest of their lives. These payments are fixed, regardless of economic conditions, and the rates are based on the annuitants' ages at the time of the gift. In addition to receiving annuity income, the donors can claim a charitable income tax deduction on a good portion of the amount contributed. Gift Annuities can be funded with cash or securities, and capital gains taxes are avoided when appreciated, low-yield stock is used to fund the gift.

A Gift Annuity is just one of the gift plans offered by the Museum that can benefit donors and their families while providing for the Museum's future. For more information about life income gifts, bequests, and other creative giving techniques, please call the Planned Giving Office of the American Museum of Natural History at (212) 769-5119 or toll-free at (800) 453-5734.

Call for Volunteers

The Museum is currently seeking volunteers to assist in the live butterfly exhibit, which will run from October 9 to February 28. This is an excellent opportunity to work with the public amidst live, free-flying butterflies from the southern United States and Central America. Volunteers must be able to attend a training session and work regular shifts in a simulated tropical environment. If interested, please call the Volunteer Office at 212-769-5566 for an application, stating your interest in the butterfly exhibit.

Be a Teaching Volunteer

Bored doing the same thing week after week? Start challenging yourself by doing something new. Change your routine by volunteering in one of New York's most exciting institutions!

Become an AMNH Education Teaching Volunteer!

We are looking for people who are motivated and enthusiastic about teaching children and working with the public. Being a Teaching Volunteer is a positive way to influence children through hands-on learning. If you are ambitious and ready to use your experiences and imagination to enhance young peoples' lives, you are ready to be a Teaching Volunteer. Previous teaching experience is not required; we will train you. For more information and an application, please call 212-769-5171.

Members' Birthday Parties

Due to Museum construction, birthday parties for members at the supporter level ($300) and above will not be available until February 1, 2000. We apologize for any inconvenience and will start scheduling February parties in December 6, 1999. Please call 212-769-5154.

Museum Tours

Thematic tours of the Museum's collections. Tours begin at the entrance to the Akeley Hall of African Mammals, on the second floor.

Wild Dogs in Life and Legend

September 4, 12:45 p.m.

"God's Dog," the trickster that gave fire to humans; the killers of the African Plains which gently and lovingly ensure the survival of their young; the predator that gave rise to the myths of Werewolves and Wolf Children, and which is about to return to Yellowstone.

Hall of Planet Earth

September 6, 13, 27, 12:45 p.m.; September 7, 21, 1:45 p.m.; September 25, 1:45 p.m.

Come and explore our newest hall. Here you will discover the dynamic processes affecting the Earth and why this planet is habitable.

Dynamic Planet Earth

September 3, 10:45 a.m.; September 24, 1:45 p.m.

An overview of the forces that shape planet Earth.

Sky Hunters

September 18, 12:45 p.m.

Learn the difference between the birds of prey and the scavengers, many of which are endangered.

Dr. Maturin's Natural History

September 19, 2:45 p.m.

A tour based on the sea stories of Patrick O'Brien.

American Museum of Natural History

Sixth Annual

Family Party 1999

Wednesday, October 20, 5:00–7:30 p.m.

Arts and crafts, all-new pre-teen activities, science and educational activities, treasure hunts, entertainment, music, fun family dinner

For more information, please call (212) 496-3458

Please send me (indicate how many of each):

____ Child ticket(s) at $50 each

____ Adult ticket(s) at $100 each

____ Family package(s) (any combination of 4 tickets) at $300 each

Enclosed is my check for $_____ (Each ticket is tax-deductible less $50)

____ Please send me an invitation

Please Print:

Name: _____

Address: _____

City: _____ State: _____ Zip: _____

Daytime telephone: _____

Please make checks payable to the American Museum of Natural History and mail coupon to : The Family Party, AMNH, Central Park West @ 79th Street, New York, N.Y. 10024-5192

Museum Hours

Exhibition Halls

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

The Museum Library

Tues. - Fri.	11:00 a.m. - 4:00 p.m.

Museum Dining

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.

Natural Science Center

There are many wild places in the New York area, and the Center features these habitats' 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.

The Museum Shop

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

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.

Central Reservations Co

Rotunda
AM. MUS. NAT. HIST. LIBRARY
Received on: 09-03-99

Program Name/Date # Membe

Total $

Mr./Mrs./Miss/Ms.

Address

City State Zip

Telephone (Day) (Evening)

Membership No.

❑ Check ❑ Am.Ex. ❑ Visa ❑ Master Card

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 above 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.

Entrances

During Museum hours, visitors can enter the building through the 77th Street entrance, or the first- and second-floor Roosevelt Memorial Hall entrances (79th Street and Central Park West). The subway entrance is temporarily closed for construction. 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.

American Museum of Natural History

Membership Department
Central Park West at 79th Street
New York, New York 10024-5192

rotunda

QH70
.U52N5
v. 24
no. 9
October
1999

Vol. 24 No. 9 October 1999

margaret mead film and video festival
moveable museums
members' programs

American Museum of Natural History Members' Newsletter

1999 margaret mead film & video festival

The Margaret Mead Film and Video Festival was first held in 1977 as a one-time commemoration of Margaret Mead and her 50-year contribution to the Museum. Today, screening more than 60 films from around the world, the festival has blossomed into the preeminent showcase for documentary filmmaking in the United States.

The 1999 festival—running from Friday, November 12, to Saturday, November 20—will include a focus on the works of Canadian verité director Alan King, a look at documentary film production using cutting-edge High Definition technology, and a special program, inspired by the Museum's body art exhibition, highlighting films that deal with the art and ritual of human adornment. This year's festival will also include a comprehensive look at documentary treatments of religion from around the globe.

One of the leading Canadian innovators of the cinema verité movement, Allan King's use of 16mm cameras and synchronous sound recording created a new and startling intimacy between filmmaker and subject. His mastery will be on display in the classics *Warrendale*, depicting life inside a residential treatment center for troubled children, and *A Married Couple*, which takes the audience behind the closed doors of a middle-class Toronto family's home. King will be present to discuss both films.

In conjunction with "Body Art: Marks of Identity," the festival will feature five programs that explore how individuals and communities use the body as an expression of aesthetic, political, and social practices, including ethnographic cinema as well as contemporary digital art. Subjects covered range from a traditional Moroccan body artist to an Australian-based artist working with MRIs.

Some of the festival highlights: *Paradise Bent*, one of the first films to explore the Samoan *faafafines*—boys who are raised as girls, fulfilling a traditional role in Samoan culture; *Battu's Bioscope*, the story of a man who travels to remote villages throughout his native India, introducing "Bollywood" melodramas to tribal communities where moving pictures have not yet penetrated; and *The Cow Jumped Over the Moon*, which depicts NASA's controversial efforts to aid the Fulani nomads of Mali.

Other noteworthy films include *For These Eyes*, the harrowing story of one Argentinian grandmother's search for her granddaughter who disappeared during Argentina's "Dirty War," *Woubi Cheri*, a film dealing with African gender pioneers, and *Louis Prima: The Wildest*, which covers the life of the ultimate lounge act, complete with exclusive footage of Prima in his prime.

Included in the festival's program focussing on world religions and their depiction in documentary film are *Heaven's Gate*, based largely on the home videos of the Heaven's Gate religious cult which staged a mass-suicide last year, and *Howling for God*, the story of two Macedonian shieks who squabble for power as Howling Dervishes—a form of Islamic yoga distinguished by rhythmic movements, repetitive chants, startling body piercing, and possession.

Advance ticket purchases can be made by calling 212-769-5200, Monday through Friday, 8:00 a.m. to 6:00 p.m., and Saturday, 10:00 a.m. to 6:00 p.m.

This event is made possible with public funds from the New York State Council on the Arts, a State Agency, and by the Natural Heritage Trust.

Cover: from *Battu's Bioscope*, by Andrej Fidyk. Left: scene from *Warrendale*. Above Left: from *Paradise Bent*. Back Cover: photo by Mary LeCroy.

rotunda

ISSN 0194-6110

Vol. 24, No. 9, October 1999

John Davey, Editor
Rosemary Caulk, Director of Membership
Ellen V. Futter, President
Anne Sidamon-Eristoff, Chairman

Rotunda is published monthly, except for a combined issue in July/August, by the Membership Office of the American Museum of Natural History, Central Park West @ 79th Street, New York, N.Y. 10024-5192. Telephone: (212) 769-5606. Museum membership of $45 per year and up includes a subscription to *Rotunda*. © 1999 American Museum of Natural History. Periodical postage paid at Rutherford, N.J., and at additional mailing offices. Postmaster: Please send address changes to *Rotunda*, Membership Office, AMNH, at the above address. Printed in the USA.

A. Gallagher

The Paleontology of Dinosaurs Moveable Museum, sponsored by the Children and Grandchildren of Irma and Paul Milstein.

taking it to the streets

Initiated in 1993, the Moveable Museum Program revolves around two state-of-the-art walk-in exhibition spaces, housed in converted recreational vehicles. They are designed to bring focused museum experiences to NYC schools, reinforcing curriculum standards in the areas of science and social studies.

The current exhibitions are "The Paleontology of Dinosaurs," which has students follow in the footsteps of "bone hunters" in an attempt to find and classify fossils, and "Structures & Culture," which gives students an anthropologist's view of three nomadic peoples from Asia, Africa, and North America.

A typical day for the Moveable Museum begins at 7:30 a.m., when Museum educators arrive at their vehicles and head out to a pre-registered school location. After parking, they meet with the teachers and fine-tune the day's schedule. The Program accommodates up to four classes a day; each class participates in a half–hour in–class discussion with the educator, which is followed by an hour of exploration and research aboard the Moveable Museum.

Teachers use the program in a variety of ways. Most often they are excited about giving their students a chance to have a hands-on activity focusing on a unit of study. Occasionally they use it as a starting point for a thematic study, or as a culminating activity for that month's topic. The students enjoy the ability to explore topics on their own, which in turn reinforces and extends their knowledge of the subject.

After a brief introduction to the layout, students use field journals to guide themselves around the exhibit. Activity stations complement their study questions, and Museum educators and classroom teachers assist in their explorations.

The day closes with a final Q & A session, and by the time the 2 p.m. departure rolls around, it is remarkable how much information has been shared and absorbed.

The success of the Moveable Museum Program is based on the generous support of our sponsors and depends on the insights of educators and their students across the NYC metro area. Their expertise leads to the development of new exhibits and curriculum components.

Support for the Moveable Museum Program is provided by the Children and Grandchildren of Irma and Paul Milstein, the Merrill Lynch and Co. Foundation, Inc., The New York City Council, the Coca-Cola Foundation, The Heckscher Foundation for Children, the Cleveland H. Dodge Foundation, Inc., The Louis Calder Foundation, The Schnurmacher Foundations, and KeySpan Energy.

Jackie Beckett, AMNH

events & exhibitions

Richard Ellis

Illustration from *The Search for the Giant Squid*, by Richard Ellis

Giant Squid Finds A Home

The 25-foot giant squid specimen found dead but intact off the coast of Newfoundland and given to the Museum last year is now on display for all to see in the Hall of Biodiversity. The squid, with eight arms and two tentacles that can grow as long as a city bus, is the largest invertebrate on the planet today, and the presumed source of many of the bizarre "sea creature" myths found in maritime lore.

The giant squid inhabits both the Atlantic and Pacific, but scientists have yet to see one alive in its natural habitat. You can do the next best thing by coming down to view the Museum's many-tentacled treasure.

Epic IMAX®

The Museum's IMAX® Theater is featuring *Epic Journey: Migrations*, which follows some of the world's most exotic species, including zebras, gray whales, Christmas Island red crabs, and monarch butterflies, on their remarkable journeys. Produced by Graphic Films, in conjunction with the Houston Museum of Natural Science, *Epic Journey: Migrations* is scheduled to open at the Museum on October 16, with double–features showing at 6:00 p.m. on Friday and Saturday evenings.

Department of Education presents the Tibetan Nuns of Kathmandu

Women's Freedom and Spiritual Liberation Concert

Sunday, October 10, 1:00 p.m. & 4:00 p.m. Kaufmann Theater, first floor.

Tickets: $10 ($8 members, students, senior citizens). Program code: ED99136M.

In an unprecedented breakthrough of Tibetan tradition and seen for the first time outside of Tibet, the nuns of Khachoe Ghakyil Nunnery present a program reflecting the changing and central role women have played in the spiritual life of Tibet. The program includes sacred dances with colorful masks, music of harmonic chants, and a demonstration of philosophical debate—all areas previously inaccessible to nuns in the past.

Of the many female Buddhas and bodhisattvas, the most popular is the Dakini, the Sky-Dancer or Celestial Messenger. The Dakini Dance is a ritual of homage by the Khachoe Ghakyil nuns praising the divine feminine emanation of the enlightened mind. The program also includes the Dance of the Wisdom Sword, a dance of purification, and the world premiere of an original sacred dance dramatizing the life of Milarepa, Tibet's beloved spiritual figure.

For tickets, call the Museum's Central Reservations and Ticketing Service at 212-769-5200. Only general seating is available. For further information about the program, call the Department of Education at 212-769-5315, between 9:00 a.m. and 5:00 p.m. weekdays, or see the museum website at www.amnh.org.

Caribbean Heritage Celebration

Throughout October and November

During Caribbean Heritage Month, the Education Department will present free family programs, featuring performances, films, and discussions. This year's presentations will focus on the African, Amerindian, Chinese, and East Indian contributions to Caribbean culture.

The Afro-Caribbean Roots of Jazz
Wednesday, October 27, 7:00 p.m.

Kaufmann Theater, first floor. Tickets: $8 ($6 members, students, senior citizens). Program Code: ED 99209M.

John Santos and The Machete Ensemble present "The Afro-

©1999 Basil Childers

Caribbean Roots of Jazz," a musical concert that illuminates the Caribbean's extensive influence in jazz and American popular culture. For tickets, call the Museum's Central Reservation and Ticketing Service at 212-769-5200.

Celebrating the Diversity of the Caribbean

Weekend Family Programs

The People Center, 1:00–5:00 p.m.

This program highlights the arts, traditions, and customs of the Amerindian, Indo-Caribbean, Chinese Caribbean, Garifuna, and Colombian communities. With support from the May and Samuel Rudin Family Foundation, Inc. and The Leonhardt Foundation.

Saturday & Sunday, October 2 & 3

Amerindian Celebration

***Taino Indigenous Survival in the Caribbean* (work in progress)**
1:00 p.m. José Barreiro and Rich Brotman (USA), Filmmakers, 1997.

***The Indian Chronicles*: Reading and Discussion**
2:00 & 3:30 p.m. José Barreiro, a Taino scholar, reads from his novel.

Akuríkia Taino Songs & Dances
2:30 & 4:00 p.m. Akuríkia (The People) is a New York City based music and dance group composed of Taino tribal members and chiefs.

Saturday & Sunday, October 9 & 10

Indo-Caribbean Celebration

This program was created in collaboration with Karna Singh, and the Rajkumari Cultural Center.

Pure Chutney: The Politics of Memory in the Indian Diaspora; a Travel Essay on Trinidad
Sanjeev Chatterjee (USA), Director & Producer, 1998. Video, 1:00 p.m.

Indo-Caribbean—People and Culture
2:00 & 3:30 p.m. The history of the East Indian community in Guyana from the 19th century to the present.

Saturday, October 9

Traditional Madrasi Songs of Guyana
2:30 & 4:00 p.m. Krishna Maistre, traditional leader from the NY/NJ Madras Society, narrates his life experience as a musician, dancer, and singer of the West Indies.

Sunday, October 10

Traditional Indo-Caribbean Women's Songs
2:30 & 4:00 p.m. Shrimati Ragbir, elder and ceremonial singer, shares songs of birth, blessing, marriage, and death from North India.

Saturday & Sunday, October 16 & 17

Chinese Caribbean Celebration

El viaje más largo (The Longest Journey)
Rigoberto López, Director

(Spanish with English subtitles.) 1:00 p.m. This film describes the history of Chinese people in Cuba.

Storytelling: Mama & Papa Have a Store
2:00 & 3:30 p.m. Amelia Lau Carling, a daughter of Chinese shopkeepers, illustrates her story of growing up in Guatemala.

Echoes of the Caribbean Islands
2:30 & 4:00 p.m. Charlie Chin, a native New Yorker of Carib-Indian, Venezuelan, and Chinese heritage, presents a program of songs, poems, and monologues.

Saturday & Sunday, October 23 & 24

Garifuna Celebration

The Garinagu people are Afro-Indians that historically settled in the Caribbean, pre-dating the slave trade.

The Garifuna Journey
Andrea Leland and Kathy Berger (USA), Directors & Producers, 1998

Video, 46 min., 1:00 p.m. This documentary presents the daily lives of the Garinagu people.

Pre-Colombian Afro-Caribbean: The Meeting of Two Cultures
2:00 & 3:30 p.m. Garifuna leader Felix Miranda highlights the influences and relationships between the African and indigenous cultures of the Caribbean before the forced migrations and the "discovery of the New World."

Ilagulei: The Roots of Garifuna Dances & Music
2:30 & 4:00 p.m.

Tibetan Nuns, *Chod (Cutting Through)*

members' programs

Members' Expeditions

All expeditions, unless otherwise noted, include round-trip transportation (via charter bus from the Museum) lectures, and all admission fees. A detailed itinerary, along with specific instructions, will be sent to all registered participants approximately two weeks prior to the program date.

New Jersey's Great Swamp and Jockey Hollow

Saturday, November 6, 8:30 a.m. to 5:00 p.m.

Sidney Horenstein, the Museum's coordinator of environmental programs, leads this trip to explore the ecological niches and geological features of these nearby fascinating areas. The Great Swamp, occupying 7,500 acres, is only 26 miles from New York City, yet as one walks along the trails and boardwalks one could not imagine being farther away. Born in the aftermath of glaciation, the swamp is home to 222 species of birds, white-tailed deer, river otter, red fox, and many other mammals. Travel on to Jockey Hollow, part of Morristown National Historic Park, to compare the upland vegetation with that of the swamp. George Washington and the Continental Army occupied this area during the Revolutionary War for its logistical, geographical, and topographical military advantages.

Cost: Members: $55; Non-members: $65. Code: MM11-2.

Tibetan Treasures

Sunday, November 7, 10:00 a.m. to 5:00 p.m.

The Newark Museum's world renowned collection of Tibetan art will be highlighted in a major comprehensive exhibition, *Sacred Realm: Treasures of Tibetan Art in the Collection of The Newark Museum.*

Enjoy a before–hours private tour of the exhibition with Valrae Reynolds, curator of the Asian collections at the Newark Museum. Reynolds, organizer of the exhibition, is an internationally known authority on Tibetan art.

Enjoy lunch in the museum cafe, followed by time to explore the Museum's other fascinating collections.

Cost (including lunch): Members : $48; Non–members : $58. Code: MM11-3.

Baseball: A Natural History

Thursday, November 11, 10:00 a.m. to 5:00 p.m.

While some people say that the national pastime was created in New York City, it is more accurate to say that baseball is *of* our city. Each of the three great stages of baseball evolution occurred within the five boroughs.

Peter Laskowich, urban historian, will trace the history and rules of the game to the interplay of the natural environment and social conditions in late 19th– and early 20th–century New York City. Our charter coach will take us to the sites of the former Ebbets Field and the Polo Grounds, and on to the home of the Bronx Bombers.

Enjoy a private, behind-the-scenes tour at Yankee Stadium with Tony Morante, Public Relations Director of the New York Yankees, to explore the game as it is played today.

Cost: Members: $55; Non-members: $65. Code: MM11-4.

Members' Lecture

The Search for the Giant Squid: Continued

Tuesday, November 9, 7:00 p.m.

Join Richard Ellis, one of America's most celebrated marine artists and writers, for a fascinating evening learning about the search for the elusive 60–foot–long giant, *Architeuthis*—an animal that has never been seen alive in its deep–water habitat.

Ellis's most recent book, *The Search for the Giant Squid*, is an exciting compliation of everything that is known, plus a catalog of what is not known, about the last of the fabled "sea monsters." Ellis, who was part of the Museum's welcoming committee when the giant squid specimen arrived from New Zealand in 1998, will introduce us to the actual specimen, newly installed in the Museum's Hall of Biodiversity.

Kaufmann Theater. Cost: Members: $10; Non-Mem.: $12. Code: MM11-5.

Hall Tours

Gone With the Wind

Friday, November 5, 6:30 p.m.

You can't see it. You certainly can feel it. Sometimes you can smell it. You can't really control it, but you try. Whether you describe it scientifically or mystically, the wind is a force that shapes the mind, body, and soul of humans because it shapes the physical and biological Earth. Our invisible companion guides us, manipulates us, comforts us, and destroys us. It is the closest thing to a real spirit. It is the wind. Robert Campanile will be your guide through the science, culture, and myth of wind.

Cost: Free–Members only. Code: MM11-6.

Portia Rollings, AMNH

Richard Ellis

As Time Goes By

Friday, November 12, 6:30 p.m.

As the millennium gets closer, here is the ideal time to understand and appreciate the remarkable evolution of the calendar. Humanity's effort to capture, control, and sanctify time is one of epic proportion. The calendar is not an invention of some God, or of time itself, but of the human mind. Come and witness the eternal struggle to organize time. Plan your date with our timeless guide, Robert Campanile, as we seek the origins and growth of one of humanity's greatest comedy of errors.

Cost: Free—Members only. Code: MM11-7.

Museum Theatrical Event:
The Epic of Gilgamesh

Miraculously preserved on 5,000–year–old clay tablets of the ancient Mesopotamians, the cycle of poems woven around the character of Gilgamesh, the great king of Uruk, is one of the great and probably oldest masterpieces of world literature. *The Epic of Gilgamesh* is the tale of one man's struggle against death.

This multi–theatrical museum presentation, created and directed by Robert Campanile, will use oral interpretation, images, and sound to bring the ancient recitations to life. The cast of actors will recite from a composite of Sumerian and Babylonian texts.

Limited Engagement: Friday, October 15 and Saturday, October 16, 7:00–9:00 p.m., Kaufmann Theater

Admission:
$12 members
$15 non-members

Program
Code: MM10-2

october

Current Exhibits

The Endurance: Shackleton's Legendary Antarctic Expedition
Through October 11

Friday 1

Saturday 2
Amerindian Celebration
Education Department Programs
beginning at 1:00 p.m.

Sunday 3
Amerindian Celebration
Education Department Programs
beginning at 1:00 p.m.

Monday 4

Tuesday 5

Wednesday 6
Fall Flowers & Trees in Central Park
Walking Tour
8:30–11:00 a.m.

Thursday 7

Friday 8

Saturday 9
Indo-Caribbean Celebration
Education Department Programs
beginning at 1:00 p.m.

Sunday 10
Tibetan Nuns of Katmandu
Concert
1:00 p.m. & 4:00 p.m.
Indo-Caribbean Celebration
Education Department Programs
beginning at 1:00 p.m.
New York Shell Club
Shell Jazz on a Sunday Affternoon
2:00 p.m., Blum Classroom

Monday 11

Tuesday 12

Wednesday 13

Thursday 14

Friday 15
The Epic of Gilgamesh
Museum Theatrical Event
7:00–9:00 p.m.

Saturday 16
The Epic of Gilgamesh
Museum Theatrical Event
7:00–9:00 p.m.
Hudson Valley Cruise
10:00 a.m.–2:00 p.m.

Sunday 17

Monday 18

Tuesday 19
Great Feuds in Science
Lecture
7:00–8:30 p.m.

Wednesday 20
Family Party
5:00–7:30 p.m.

Thursday **21**

Friday **22**

Saturday **23**
Biologizing Culture
10:00 a.m.–5:00 p.m.
The Brooklyn Bridge
Walking Tour
10:00 a.m.–noon & noon–2:00 p.m.
Garifuna Celebration
Education Department Programs
beginning at 1:00 p.m.

Sunday **24**
Garifuna Celebration
Education Department Programs
beginning at 1:00 p.m.

Monday **25**

Tuesday **26**
Behind–the–Scenes in the Mammalogy Department
Tours begin at 5:30, 6:00, 6:30, & 7:00

Wednesday **27**
Behind–the–Scenes in the Mammalogy Department
Tours begin at 5:30, 6:00, 6:30, & 7:00

Thursday **28**

Friday **29**

Saturday **30**

Sunday **31**

Phone Numbers at Your Fingertips

Museum Information . . . . . (212) 769-5100
Membership Office . . . . . (212) 769-5606
Planetarium Information . . (212) 769-5900
Members' Birthday Parties (212) 769-5154
Education Department . . . . (212) 769-5304
Planned Giving Office . . . . . (212) 769-5119
Discovery Tours . . . . . (212) 769-5700
*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
Website . . . . . http://www.amnh.org

For program reservations, please call (212) 769-5200

program listings

Department of Education Lectures and Field Trips

Life in Extreme Environments

Four Wednesdays, October 13 to November 3, 7:00-8:30 p.m.

Fee: $30 for series ($27 members); $12 each ($10 members). Program Code: ED99219L.

In the sixth annual Department of Earth and Planetary Sciences lecture series, four internationally known experts in the field will present talks exploring the full range of possibilities on and off the planet. For additional information and a program, call 212-769-5176.

Mushrooms and Conifers, Mosses and Ferns

Four Mondays, October 18 to November 8, 2:30–4:00 p.m. Program Code: ED99221L.

or

Four Thursdays, October 14 to November 4, 7:00–8:30 p.m. Program Code: ED99222L.

Cost: $30 for series ($27.00 members); $12 each ($10 members).

This series of slide-illustrated lectures will examine the nature of the ancient diversity of ferns and mosses and their continued role in sustaining the web of life today. William Schiller, lecturer in botany in the Department of Education, will focus on northeastern United States species and ecosystems.

* **Marvels of Seaweed Diversity**
* **Fern and Moss Diversity**
* **Biodiversity and Conifers**
* **The World of Mushrooms and Lichens**

Space, Time, and the Sacred in Indigenous Culture

Two Mondays, October 18 and 25, 7:00–8:30 p.m. Cost: $20 for series ($18.00 members); $12 each ($10 members). Program Code: ED99223L.

October 18–Concepts of the Sacred
October 25–The Sacred in Daily Existence

Great Feuds in Science

Tuesday, October 19, 7:00–8:30 p.m. Cost: $12 ($10 members). Program Code: ED99224L.

Starting with Galileo's battle with Pope Urban VIII and ending with Derek Freman's attack on Margaret Mead in our own day, popular author and lecturer Hal Hellman will present some of the major players on the scientific scene and the times in which they lived, bringing to life the personalities, the clashes, the ideas.

The Wonderful World of Butterflies and Moths: A Four–Part Seminar

Three Tuesdays, October 19 to November 9 (no class on November 2), 7:00–8:30 p.m. Cost: $25 for series ($22.50 members); $12 each ($10 members). Program Code: D99225L.

Eric L. Quinter, senior scientific assistant in the Department of Entomology, will present a short "course" covering many aspects of Lepidopterology–the science, study, and aesthetic appreciation of butterflies and moths.

Geology for Travelers

Three Thursdays, October 21, 28, and November 4, 7:00–8:30 p.m. Cost: $25 for series ($22.50 members); $12 each ($10 members). Program Code: ED99226L.

Sidney S. Horenstein, geologist and coordinator of environmental programs at the Museum, will present three slide lectures on basic concepts in geology, and will suggest how to apply them to popular travel destinations.

October 21–Sources of Information and Basic Geological Principles

October 28–Rocks and their Features
November 4–Landscape Classification and Geological Structures

The American Eagle

Tuesday, October 26, 7:00–8:30 p.m. Cost: $12 ($10 members). Program Code: ED99227L.

John Pezzenti, the first photographer to take pictures of eagles hatching in the wild, presents this lecture on the American icon, the bald eagle, featuring his unique photographs.

Free Programs

Biologizing Culture

Saturday, October 23, 10:00 a.m.–5:00 p.m. Kaufmann Theater.

Everywhere we turn–in books and newspapers, on television, even coming from the mouths of politicians–we encounter claims that biology can explain the major ailments that plague society. The way we live and the problems we face are said to be programmed in our genes. This public symposium of distinguished research scientists offers a bold challenge to this prevailing view.

Field Trips, Walking Tours, and Workshops

To register, call 212-967-5200.

Urban Forest Walking Tours

Registrants will receive information on the starting point for each tour. $12 per tour. Indicate which dates.

Fall Flowers and Trees in Central Park

Wednesday, October 6, 8:30 to 11:00 a.m. Program Code: ED99325X

Central Woodland, Pelham Bay Park

Saturday October 2, 10:00 a.m. to 1:00 p.m. Program Code: ED99326X.

Northeast Forest, Van Courtlandt Park

Saturday October 16, 10:00 a.m. to 1:00 p.m.. Program Code: ED99327X.

Animal Drawing

Eight Tuesdays, October 5 to November 30, 7:00–9:00 p.m.

After Museum hours, students draw from the famed dioramas, in the Halls of African Mammals, North American Mammals, North American Birds, Ocean Life, and the Fossil Mammal halls. Stephen C. Quinn, senior assistant manager, Exhibition Department, discusses drawing technique, animal anatomy, and the role of the artist at the Museum.

Geology on Foot with Sidney Horenstein

Geologist and specialist in New York City's underpinnings, Sidney S. Horenstein leads a series of walking tours in unique city areas.

The Brooklyn Bridge

Sunday, October 23. Cost: $12.

Walk over the Brooklyn Bridge, learn about aspects of its construction, and view the City from its heights. Opened in 1883, and still considered the most beautiful bridge in the world, the Brooklyn Bridge connected the then separate cities of New York and Brooklyn. From this unique vantage point we will point out significant landmarks, interpret scenery, and discuss geology's role in the bridge's construction.

Program Code: ED99350X–Morning Session: 10:00 a.m.-noon. Program Code: ED99351X–Afternoon Session: noon-2:00 p.m.

members' programs

Previously Listed

Behind-the-Scenes in the Mammalogy Department

Tuesday, October 26 and Wednesday, October 27. Choice of tours, which begin at 5:30, 6:00, 6:30, 7:00 on both dates.

Venture behind closed doors with scientific staff at the Museum on a 90–minute tour to learn the inside story about work conducted by the Department of Mammalogy, the Museum's oldest department.

Denis Finnin, AMNH

Members will explore the importance of specimen–based research as the basis for primary scientific literature.

See how specimens are processed, catalogued, and stored, and learn about the critical role the Museum's collections play in scientific research around the globe. Among the Mammalogy's quarter–of–a–million individual specimens are complete skeletons of gargantuan elephants as well as those of diminutive rodents and bats. A visit to the 120–year–old departmental library will highlight the importance of paper collections, such as original catalogues and fieldnotes.

Program Codes: Oct. 26th, 5:30, MM10-3; 6:00, MM10-4; 6:30, MM10-5. Oct. 27th, 5:30, MM10-6; 6:00, MM10-7; 6:30, MM10-8; 7:00, MM10-9. Cost: $23–members only.

Hudson Valley Cruise

Saturday, October 16, 10:00 a.m.–2:00 p.m.

Guided by Sidney Horenstein, the Museum's coordinator of environmental programs, participants will cruise up the Hudson River, from Wall Street to West Point and back. The route will follow the river through its most spectacular scenery to West Point and Storm King Mountain.

Program Code: ED99354X. Cost: $45 members; $55 non-members.

The Night the Stars Fell

Wednesday, November 3, 7:00 p.m.

Every year, for two or three nights in mid-November, a modest number of meteors falls—perhaps eight or ten in an hour's watch. In 1999, which is a favored year, the Leonids may fall by the hundreds, the thousands, or even the tens of thousands per hour. This in–depth lecture by Joe Rao will prepare you for the mid–November arrival of the Leonids.

Cost: $8 members; $10 non-members. Location: Kaufmann Theater. Program Code: MM11-1.

Please join us for the Members' Preview Party of

Body Art: Marks of Identity

Friday, November 19, 5:30 to 8:30 p.m.

Kindly R.S.V.P. to the Membership Office at 212-769-5606.

program listings

Children's Workshops

Wildlife in Art

Sunday, October 3, 10:30 a.m.–1:30 p.m. (ages 9 and 10.) Cost: $15. Code: ED99416C.

Participants will sketch and create wildlife art in clay.

Planet Earth: Field Trip to Sterling Mines

Saturday, October 16 (field trip), 9:00 a.m.–4:00 p.m. (Ages 11, 12 and 13.) Cost: $50. Code: ED99418C.

One of the richest mineral localities in the world is in our own backyard. Join us for a tour of the Sterling Hill Mine tunnels and museum to learn about the geology of this site and the history of mining in the area.

A Whale's Tale

Sunday, October 17, 10:30 a.m.–11:30 a.m. (Age 4, each child with one adult.) Cost: $10. Code: ED99419C.

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.

Origami Birds

Sunday, October 17, 10:30 a.m.–1:30 p.m. (Ages 9 and 10.) Cost: $15. Code: ED99425C.

Children will fold paper penguins, swans, and ducks while learning about how birds eat and where they live.

Make Your Own Musical Instrument

Sunday, October 23, 10:30 a.m.–1:30 p.m. (Ages 9 and 10.) Cost: $15. Code: ED99429C.

Children will visit the Halls of African People, South America, and Asia to learn about musical instruments in different cultures.

Weaving: A Navajo Arts and Craft

Sunday, October 24, 10:30 a.m.–1:30 p.m. (Ages 9 and 10.) Cost: $15. Code: ED99420C.

Weaving is an important part of the culture and history of the Navajo people. Children will learn the technique of weaving and the stories that go along with it.

A Day With The Dead

Sunday, October 31, 10:30 a.m.–1:30 p.m. (Ages 9 and 10.) Code: ED99431C.

Children will look at mummies, tombs, clothing, and create a craft project using bones to honor the dead in the Mexican tradition. Presented by Lisa Breslof, senior museum instructor, department of Education.

Evi-dents

Sunday, October 31, 10:30 a.m.–1:30 p.m. (Ages 9 and 10.) Cost: $15. Code: ED99424C.

Children will learn about the importance of teeth for survival on a walking tour of the Museum, observing dinosaur and other animal teeth, participating in a brushing and flossing activity with models of human teeth, and handling human and animal skulls to compare their function.

Yikes! Your Body Up Close

Sunday, November 14, 10:30 a.m.–1:30 p.m. (Ages 7 and 8.) Cost: $15. Code: ED99423C.

Taking part in exciting experiments focused on vision and hearing, children will make their own drums and kaleidoscopes.

Kitchen Chemistry

Sunday, October 31, 10:30 a.m.–1:30 p.m. (Ages 7 and 8.) Cost: $15. Code: ED99426C.

Children will experiment with many different types of science. Some of the activities for Halloween are making a 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.

Take Out, Anyone?

Sunday, November 7, 10:30 a.m.–1:30 p.m. (Ages 8 and 9.) Cost: $15. Code: ED99427C.

Children will survey restaurant and take-out menus from around the worl from 1898 to the present. They will write and design their own menus and visit the Hall of Asian Peoples to learn the art of using the chopstick and other utensils.

Fascinating Physics

Sunday, November 7, 10:30 a.m.–1:30 p.m. (Ages 10 and 11.) Cost: $15. Code ED99432C.

A "hands-on" demonstration in physics. Investigating sound and vibration, children will make musical instruments, and play with light, lasers, and reflective materials. Investigate centripetal and centrifugal forces and create CHAOS.

Multicultural Books

Sunday, November 14. 10:30 a.m.–1:3 p.m. (Ages 10 and 11.) Cost: $15. Code ED99428C.)

Explore the history of the book in different cultures. Children will learn about different book structures, and build books for the stories they write. A visit to the Hall of Mexico, South America, and Asia is also included.

museum spotlight

From Prom King to Science Guy: Museum Curator Rob DeSalle

Associate curator of entomology and codirector of the Molecular Laboratories at the American Museum of Natural History Rob DeSalle won't say why his childhood friends in Springfield, Illinois, nicknamed him "mole." The question elicits only an enigmatic chuckle; it appears that this former Griffin High School prom king, now a prominent molecular biologist, is shy about his past.

Today, the 44–year–old DeSalle is far from Springfield, living in the edgier confines of Manhattan's West Village with his wife and two daughters. A Museum curator since 1991, DeSalle has also held appointments at Yale and New York University, and a post-doctoral fellowship at U.C. Berkeley. DeSalle received his Ph.D. under the tutelage of Alan Templeton and Dan Hartl, from Washington University, St. Louis, in 1984.

DeSalle's work is divided into three major areas: molecular systematics, conservation genetics, and developmental biology. Trained in fruit fly (*drosophila*) systematics, DeSalle still spends time working with these tiny flies. His data is used as a source for classical museum studies in evolution. DeSalle also works closely with his graduate students and post-docs on projects ranging from conservation biology for humpback whales and sturgeon to developmental biology projects that are attempting to discover the role of genes in the development of organismal form. He is particularly excited about the burgeoning field known as evo/devo in which scientists try to understand how developmental biology applies to evolution.

If you've visited the Museum this year, you've probably found your way past the glowing models of the malaria, giardisis, and tuberculosis diseases scattered among what DeSalle considers a great accomplishment—the exhibit "Epidemic: The World of Infectious Disease." As the exhibit's curator, he worked closely with Museum staff to create this important and educational exhibition highlighting public health

issues as they relate to disease. *The New York Times* praised "Epidemic" as "the most impressive and informative exhibition the museum has mounted in years."

Integral to his work, the DeSalle lab, with its 15 or so graduate students and post-doc fellows, buzzes with activity. It is routine to find one of his dedicated students working late into the night, preparing DNA samples or loading a DNA sequencer, with an eclectic assortment of music blaring from the lab's stereo. Graduate students come to the lab after their first or second year of classes. Some stay for just a semester, but most stay on to finish their dissertations.

Yael Wyner, a fifth–year graduate student in the Department of Biology at NYU and a member of DeSalle's lab, was attracted to the Museum because she felt that it was a great place to learn about conservation biology and systematics. Wyner, who works with brown lemurs and black & white ruffed lemurs from Madagascar, was excited about DeSalle's work. "He really loves the pure research aspect of science," Wyner says about her mentor. "And that's really hard to find. Rob has a great appreciation for biodiversity and shares that enthusiasm with his students."

George Amato, Director of the Science Resource Center at the Wildlife Conservation Society (W.C.S.)/Bronx Zoo, has known him since their teaching days at Yale. Today, the old friends direct a conservation genetics program run jointly by the two institutions. "Rob is unique because of his deep commitment to science, combined with a youthful enthusiasm," says Amato. "This creates an environment in his laboratory where science is both interesting and fun."

As for the future, DeSalle hopes to bring his lab work "into the context of modern comparative genomics," meaning that DeSalle wants to shift some of the focus away from human to other genomes. DeSalle emphasizes the fact that this work is essential: "Without these sequences there is a danger of over–interpreting human genome results. An evolutionary perspective will allow us to see how, for example, human genes have evolved."

You can be sure that the Griffin High School prom king once known as "mole" and now just endearingly called "Rob" by his students and friends will remain deeply engaged and committed to these issues and ideas in the years to come.

—Michael Yudell, AMNH

Photo: Denis Finnin, AMNH

museum notes

Long-time Museum Member Provides for the Museum and for Herself

At a time when few women became scientists, Ros Wallace earned a master's degree in biology from George Washington University and credit hours toward her Ph.D. at Radcliffe. Joining the staff at Lederle Labs before completing her doctorate, Ros went on to a career in medical research, specializing in molecular biology studies related to the search for effective treatments for cancer. But the American Museum of Natural History has always been a special place for Ros.

Because of her science background, the Museum has held much fascination for her. She has spent many hours in the Halls of Vertebrate Origins, Advanced Mammals, and Human Biology and Evolution.

"I had always dreamed of making a significant gift to this wonderful place, but never thought I'd be able to afford it." But then Ros's financial adviser told her that through a Charitable Remainder Unitrust, she could supplement her retirement income while making a significant gift to the Museum. A Charitable Remainder Unitrust offered a perfect solution for the second home Ros had purchased as an investment years before. Most of the rental income generated by the real estate was absorbed by taxes and maintenance costs. The Unitrust, however, enabled her to use the property to create steady income for her retirement.

This type of trust receives, holds, and invests assets, generating income for the donor and/or beneficiaries for life or for a term of years. At the end of that period, the trust ceases to exist and its principal is transferred to a designated charity.

Ros donated her second home to a Unitrust that provides income to her for life and, subsequently, a generous gift to the Museum. Because of this future charitable gift, no capital gains tax was incurred when the trust sold the home (worth three times the price Ros paid for it 21 years ago) and invested the proceeds to generate income for her. Additionally, Ros was able to claim an income tax deduction for a good portion of the property's appreciated value.

"This trust is a lot more profitable to me than the house was," she explains. "I can build the assets in it through good investments and, if I wish, additional gifts. This strengthens my potential income for the years ahead when I may need it more. At the same time, I get the satisfaction of seeing my future gift to my favorite Museum grow."

Because of her gift to the Museum, Ros Wallace became a member of the Natural History Society, a special group of individuals who have included the Museum in their estate plans. As a member, Ros enjoys opportunities for "behind the scenes" visits to the Museum and recognition in the Museum's Annual Report.

A Charitable Remainder Unitrust is just one of the many planned gifts offered by the Museum. For more information on how a life income gift can work for you, please call the Planned Giving Office at 212-769-5119 or toll-free at 800-453-5734.

Halloween Celebration!

Dress up in your favorite costume and come trick-or-treat at the Museum's Fourth Annual Halloween Celebration, on Sunday, October 31st, from 12:00p.m.to 4:00p.m. Meet the characters Miffy, the Berenstein Bears, Clifford the Big Red Dog, Ms. Frizzle, and many more; create scary masks; listen to storytellers; and take part in several other fun activities. Highlights of the afternoon include performances by David Grover & the Big Bear Band, and Big Apple Circus to Go!

Admission to the event is $5.00 per person and includes all Halloween activities. A Monster Meal lunch package, which includes admission, is available for $11.95 per person. For further information and reservations, please call (212) 769-5200.

Museum Volunteers: A Profile in Generosity

Eighteen or eighty, volunteers have not lost their enthusiasm for exploring and enjoying the Museum. Many of the Museum's volunteers grew up roaming the Halls of the Museum with parents and classmates, and as adults they want to give their time to an institution that was important to them in their childhood.

Kurt Brook, who has been volunteering at the Museum for 22 years, has a collection of letters from grateful visitors thanking him for his help at the Information Desk. Not surprisingly, Kurt is a seasoned volunteer, dividing his time among AMNH, the Metropolitan Museum of Art, the International Center, and the Opera Guild.

Geologist Gretchen Kohler has been volunteering only a few months but her timing was perfect for starting work at the new Gottesman Hall of Planet Earth (HoPE). Kohler found familiar terrain while exploring HoPE, having done research along an area of the San Andreas fault that is featured in a film in the Hall. Gretchen works for an environmental consulting firm and makes time for the Information Desk on the weekends.

Hank Greenberg tried to volunteer at the Broadcast Museum, but they never returned his call—ironic, because he spent forty years in the broadcasting business as a freelance film editor. He feels fortunate to have a career he loved, and now he is having a retirement that he loves. "The best part about retirement," Hank says, "is that you get to take your life back, the walls are removed, and nobody tells you what to do." Happily, Hank made a choice to spend Thursday afternoons at the Museum.

Linda Barrett (pictured at left), an actress working in theatre and film and an inveterate traveller, bolsters her Museum know–how by attending many of the programs that the Museum offers. Linda is fond of the 4th Floor Information Desk, surrounded, as it is, by all the fossils. So fond, in fact, that she keeps a file containing anything that might pertain to our 4th Floor collection. And if a visitor stumps her with a question one Friday evening, you can be sure that she has figured it out by the next week.

If you are interested in joining the over 900 volunteers at the Museum, please call the Volunteer Office at 212-769-5566.

American Museum of Natural History

Sixth Annual

Family Party 1999

Wednesday, October 20,
5:00–7:30 p.m.

Arts and crafts, all-new pre-teen activities, science and educational activities, treasure hunts, entertainment, music, fun family dinner

For more information, please call (212) 496-3458

Please send me (indicate how many of each):

____ Child ticket(s) at $50 each

____ Adult ticket(s) at $100 each

____ Family package(s) (any combination of 4 tickets) at $300 each

Enclosed is my check for $_____ (Each ticket is tax-deductible less $50)

____ Please send me an invitation

Please Print:
Name: _____

Address: _____

City: _____ State: _____ Zip: _____

Daytime telephone: _____

Please make checks payable to the American Museum of Natural History and mail coupon to : The Family Party, AMNH, Central Park West @ 79th Street, New York, N.Y. 10024-5192

Rotunda
AM. MUS. NAT. HIST. LIBRARY
Received on: 10-04-99

Museum Hours

Exhibition Halls

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

The Museum Library

Tues. - Fri.	11:00 a.m. - 4:00 p.m.

Museum Dining

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.

Natural Science Center

There are many wild places in the New York area, and the Center features these habitats' 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.

The Museum Shop

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

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.

Central Reservations Coupon

Program Name/Date # Members

_____

_____

_____

Total $

Mr./Mrs./Miss/Ms.

Address

City State Zip

Telephone (Day) (Evening)

Membership No.

❑ Check ❑ Am.Ex. ❑ Visa ❑ Master Card

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 above 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.

Entrances

During Museum hours, visitors can enter the building through the 77th Street entrance, or the first- and second-floor Roosevelt Memorial Hall entrances (79th Street and Central Park West). The subway entrance is temporarily closed for construction. 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.

American Museum of Natural History

Membership Department
Central Park West at 79th Street
New York, New York 10024-5192

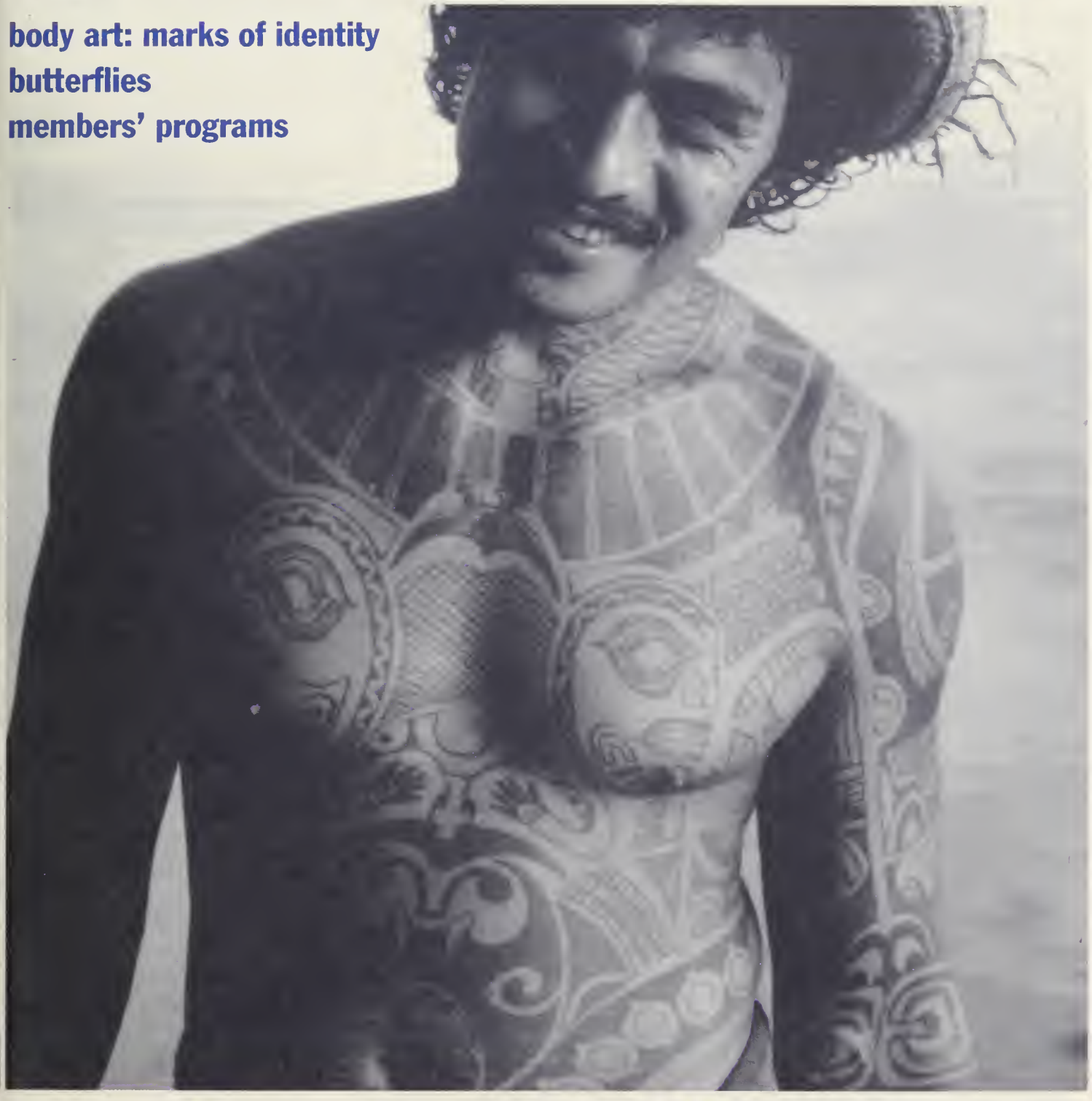
Please join us for a Members' Preview Party of Body Art: Marks of Identity, Friday, November 19th

0
2N5
24
10
ember
9

Rotunda

Vol. 24 No. 10 November 1999

body art: marks of identity
butterflies
members' programs



American Museum of Natural History Members' Newsletter

the art of the body

On the eve of the millennium, the American Museum of Natural History celebrates the extraordinary ways human beings from every continent have decorated their bodies through the ages. While messages and meanings of body art vary from place to place, there is no culture in which people do not paint, pierce, tattoo, reshape, or simply adorn their bodies in some way or other. "Body Art: Marks of Identity" focuses on a range of practices and techniques that date back thousands of years and that can be found around the world.

Using a wide range of artworks, implements, and photographs, the exhibition explores the meaning of body art in different cultures. Tiny Chinese silk shoes used by women with bound feet, Zulu ear spools, Polynesian wood carvings depicting tattoos, Moche figurative pottery, and tattooing implements from around the world are among the more than 650 objects included in the exhibition. The artifacts in "Body Art" are drawn from the Museum's Anthropology collections and from lending museums and individuals. The exhibition includes photographs from the Museum archives and engravings and travel books from the rare book collection. In addition to the cultures represented by the Museum's archaeological and ethnographic collections, "Body Art" explores contemporary U.S. body art, especially tattooing and piercing, through contemporary photography, implements, and rare antique "flash"—the drawings used by tattoists.

The first section of the exhibition introduces the techniques of tattooing, body painting, scarification, make-up, and body shaping. Sculptures, paintings, and ceramics, each from a different part of the world, illustrate the techniques. Body art is not just found on the physical body but also appears on textiles, pots, sculptures, baby carriers, house panels, masks, and cave paintings. In each culture, body art is part of an "aesthetic vocabulary" replete with local meanings.

The urge to create art on the body goes back to the earliest known human cultures. The second section of the exhibit, "Origins," includes photographs of tattoos that have been found on ancient mummies. But because the passage of time eliminates most traces of art on the body, the primary evidence of ancient body decoration is found on ceramic vessels, stone sculptures, and metal ornaments. The exhibition includes Egyptian cosmetic containers and applicators, Ecuadorian figurines and gold ornaments—never before seen outside of Ecuador—and a Chaco Canyon vessel showing ancestral Pueblo body art. Many of the figurative vessels in this section show how Mesoamerican people portrayed status and rank through ornaments worn on the bodies of both humans and representations of divinities.

The third section of "Body Art," entitled "Representations," explores how drawings, engravings, photographs, postcards, and films shape the ways in which people from different cultures perceive each other. From the earliest accounts of travelers, we know that body art has been a constant theme in the way people from one culture describe people from others. By the 16th century, scientists and explorers were publishing detailed drawings of flora, fauna, and cultural objects, but the body and its markings were what most fascinated the public. This section of the exhibition includes many rare items from the Museum Library, including books by Captain Cook, engravings by Theodor De Bry, and photographs of tattoed and decorated peoples from World's Fairs and Carnivals.

However, Westerners are not the only people who characterize foreigners by the way they perceive body art: a Benin sculpture in the exhibition portrays a Portuguese explorer with a distinctly angular nose and an enormous curved moustache; Japanese woodcuts depict Europeans in shape-transforming clothing; and postcards from all over the world categorize people from different cultures according to their body art.

"Body Art: Marks of Identity" (November 20–May 29) will be the inaugural exhibition of the 4th floor gallery in the new C.V. Starr Natural Science Building. It is complemented by a series of lectures, films, performances, workshops, and a family guide.

o show what body art actually means the people who create and use it, ıe exhibition next explores body art ı a series of cultural case studies. The ection entitled "Transformations" ıows how body art is often used as a ay of connecting people with the ıpernatural and spiritual realms. asks, photographs, and drawings of cial paintings and tattoos illustrate ow Native Americans in the Pacific orthwest used tattoo and body paint activate connections with ancestors ıd guardian animal spirits. Some oups in Borneo believed that tattoo signs were so powerful they had to drawn by men, although women did e actual tattooing. The Shipibo and nibo people in Peru decorate their dies, textiles, and pottery with a design at was said to have been conceived by a eat Boa who created the world.

ver: Tattoist Ro'onui, by Tricia Allen/Pacific pressions. Below Left: Mangbetu woman, by rbert Lang. Above Left: A Hindu bride's Henna-ered hands, by Pravina Shukla. Below Right: n," by Bettina Witteveen. Back Cover: Hindu de, by Pravina Shukla.

rotunda

ISSN 0194-6110

Vol. 24, No. 10, November 1999

John Davey, Editor
Rosemary Caulk, Director of Membership
Ellen V. Futter, President
Anne Sidamon-Eristoff, Chairman

Rotunda is published monthly, except for a combined issue in July/August, by the Membership Office of the American Museum of Natural History, Central Park West @ 79th Street, New York, N.Y. 10024-5192. Telephone: (212) 769-5606. Museum membership of $45 per year and up includes a subscription to *Rotunda*. © 1999 American Museum of Natural History. Periodical postage paid at Rutherford, N.J., and at additional mailing offices. Postmaster: Please send address changes to *Rotunda*, Membership Office, AMNH, at the above address. Printed in the USA.

Body art is one of the ways in which people mark distinctions between one individual and another. Differences of status, age, gender, or rank are often expressed by tattoos, scars, ornaments, body paint, or even by reshaping the body. The section entitled "Distinctions" explores the varied ways in which different cultures use body art to define the status of the individual, mark changes in a person's status, and recognize individual achievement. For Mangbetu people of Northeastern Congo, an elongated head was a symbol of beauty and high status. By gently binding the heads of infants, the Mangbetu, like many other people around the world (including some Europeans until the last century), achieved a well-defined profile that was further accentuated by the wearing of hair pins and hats.

People express their affiliation to a specific cultural group or sub-group through the shared symbols and styles of body art. In the "Identities" section of the exhibition, this concept is explored in photographs, objects, and implements from Japan, Polynesia, New Guinea, and the U.S. Full–body pictorial tattooing started in Japan in the 18th century as a result of the publication of *Suikoden*, a translation of ancient Chinese tales featuring Robin Hood–like bandits who wore stunning tattoos. The lavishly illustrated book became a bestseller among men on the fringes of society. Japanese tattooing today remains a sign of *yakuza* (Japanese gangster) identity. Tattooing in Polynesian cultures, especially among Marquesan and Maori peoples, has traditionally been a badge of status, rank, and beauty. Whereas one is defined as belonging to a specific Polynesian culture by wearing a distinct style of tattoos, detailed differences in design within these styles mark one as a member of a particular social class. Western tattooing was formerly associated with sailors and prisoners, although it has always attracted people rebelling against established norms.

The concluding section of the exhibition, "Reinventions," uses a dazzling array of projected images to show how worldwide travel, large-scale migrations, and increasing access to global networks of communication make contemporary body art a kaleidoscopic mix of traditional practices and new inventions. Materials, designs, and practices move from one cultural context to another. Body art allows people to reinvent themselves, to rebel, to follow fashion, or to play and experiment with new identities. Like performance artists and actors, people in everyday life use body art to cross boundaries of gender, national identity, and cultural stereotypes.

—Pravina Shukla and Enid Schildkrout

events & exhibitions

Butterflies

Of all insects, butterflies are among the best known and possibly the best loved, not only for their beautiful colors and patterns but also because of their spectacular and fascinating life cycle—metamorphosing from egg to larva, pupa, and finally imago, or adult. Yet few people are aware of the important role butterflies play in conservation. "The Butterfly Conservatory" will offer visitors the chance to learn about these marvelous creatures while simultaneously delighting their senses.

In the Museum's Hall of Oceanic Birds, a specially constructed sixty-foot-long, walk-in, translucent vivarium will house hundreds of free-flying butterflies. Visitors will be able to wander among flowering tropical plants and watch as iridescent blue morphos, zebra longwings, swallowtails, and orange sulphurs, among other species, flutter past in search of flowers. And if your timing is right, you may witness a pupa's emergence as an adult butterfly. With its temperature regulated at 80 degrees, the vivarium environment approximates the butterflies' natural habitats in Costa Rica and Florida. Accompanying text panels explain the insects' evolution, life cycle, and behavior.

There are more than 250,000 known species of Lepidoptera, of which about 18,000 are butterflies. Based on their anatomy, butterflies are classified into five families. This exhibition features butterflies from three of the families: the Pieridae (PYAIR-i-dee), commonly known as whites and sulphurs; the Papilionidae (pah-pill-ee-ON-i-dee), or swallowtails; and the Nymphalidae (nim-FAL-i-dee), which includes morphos, longwings and others.

During this century, butterfly diversity has decreased alarmingly in some parts of the world, pointing to the need for better environmental management and public education.

The greatest threat to the world's butterfly species is the ongoing loss of suitable habitat. This loss is due primarily to human activities, including agriculture, logging, urban expansion, industry, recreation, and pollution.

Some human actions take a direct toll on butterfly populations. Pesticides do not always distinguish between "pests" and harmless species. Some herbicides harm butterflies' food plants. Ultimately, global climate change will alter the distribution of plants and affect butterflies in ways that we do not yet understand.

What can we do? We need to change our uses of land and conserve or restore butterfly habitats.

We need to promote basic research on butterflies to increase our knowledge about them—because we know so little about many species, it is difficult to establish protective measures. And we need to increase public awareness and education about butterflies through exhibitions like this one.

"The Butterfly Conservatory," now open in the Hall of Oceanic Birds, will run through February 27, 2000.

Planetarium Events

Stellar Collisions and the Evolution of Globular Clusters

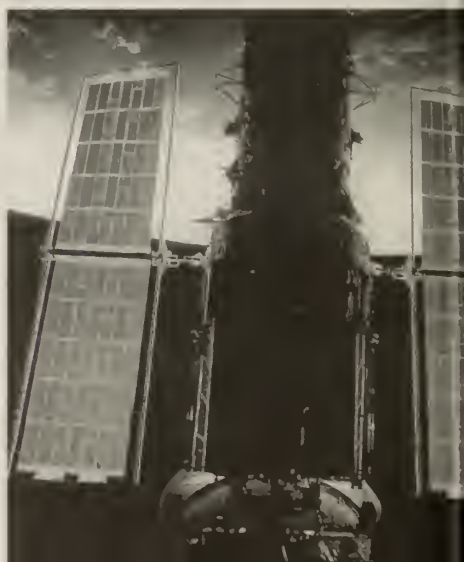
November 1, 7:30 p.m. Cost: $7 mem.; $8 non-mem. Code: HP102L.

The cores of many globular star clusters are dense enough for physical stellar collisions to occur with remarkable frequency. Direct physical collisions yield several possible catastrophic outcomes, depending on the types of stars involved in the fracas. Clear predictions made over the past decade are now being tested with Hubble Space Telescope (HST) observations. Mike Shara will describe how astronomers predict the outcomes of stellar collisions and compare those predictions with recent Hubble observations.

Galileo's Daughter

November 22, 7:30 p.m. Cost: $7 mem.; $8 non-mem. Code: HP112L.

Inspired by her long fascination with Galileo and by the remarkable surviving letters of his daughter, which she has translated into English for the first time, Dava Sobel has written a book of great originality and power, a biography unlike any ever written of the man Albert Einstein called "the father of modern physics—indeed of modern science altogether." Lecture.



Celebrating the Diversity of the Caribbean

Special Multicultural Program

***African Ceremonies* Book Presentation**
Wednesday, November 10, 6:30 p.m.

Carol Beckwith and Angela Fisher present their latest book, *African Ceremonies*, in which provocative photographs document ceremonies such as births, initiation rites, marriages, coronations, and funerals. Based on a ten-year research study, *African Ceremonies* records 43 rituals in 26 countries across the continent. Free program.

Weekend Family Programs

Leonhardt People Center, 1:00 to 5:00 p.m.

This program highlights the arts, traditions, and customs of the Amerindian, Indo-Caribbean, Chinese Caribbean, Garifuna, and Colombian communities that co-inhabit the Caribbean. Programs are free with suggested Museum admission.

Saturday & Sunday, November 6 & 7

Colombian Celebration

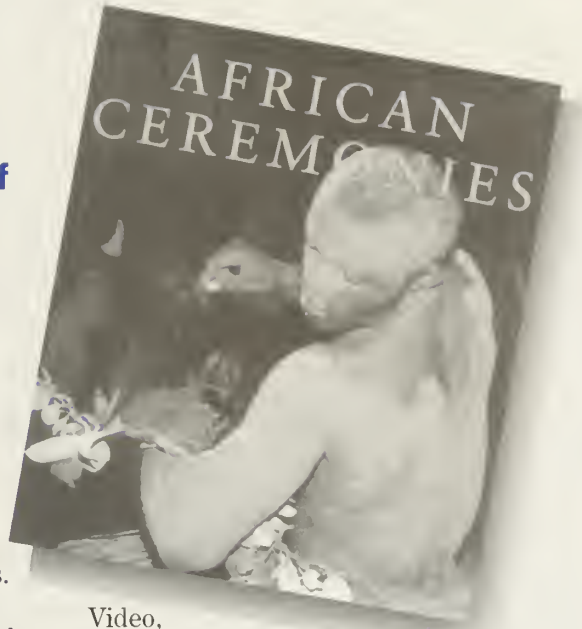
The following documentaries will be introduced by Mario Murillo, radio journalist of station WBAI.

A'Walal Yu'it's: Estrellas y lagunas (Stars & Lagoons)

Video. 23 min., (Narrated in Spanish with English subtitles), 1:00 p.m.

Colombia has over 82 officially recognized indigenous Amerindian groups, speaking 64 different languages. This film focuses on the complex cosmology and traditions of the Nasa (Páez) people, the largest native group of southwestern Colombia.

Nasa Tul: La huerta Nasa (The Nasa Garden)



Video,
24 min., (Narrated in Spanish with English subtitles), 1:25 p.m.

The Nasa people of southwestern Colombia have a unique and complex tradition of home gardening. The home gardens not only provide food for the family, they also represent the symbolic universe of the Nasa. *The Nasa Garden* documents the numerous Nasa myths, legends, and popular beliefs about agriculture and domesticated animals.

Drawings & Paintings of Nubia Medina

2:00 & 3:30 p.m.

Visual artist Nubia Medina presents slides of her drawings and paintings, inspired by the legends, myths, and pictographs of the indigenous cultures of the Desana and Hukumeiji of the Amazon jungle, and the Kogui cosmogony of Sierra Nevada.

Cumbia & Vallenato: Colombian Popular Rhythms

2:30 & 4:00 p.m.

World renowned accordion player, Foncho Castellar, and his band Los Alegres de Colombia perform Colombian popular rhythms and dances: *cumbia and vallenato.*

Did You Know?

Deep in the laboratories of the Museum, beetles work nonstop, day and night, cleaning bones. Many departments use these bone-cleaning or "sarcophagus" beetles (family Dermestidae).

The beetle-cleaning process has several steps. First, a specimen is arranged in the preparatory lab. Organs and skin are removed and then set aside and preserved in alcohol for other types of research. Then the skeleton is transferred to the beetle room.

Although most look about 1 cm long, beetles of all ages, from larve to adults, crawl around their wooden box homes. The bones are dried overnight under a fan until the flesh is the consistency of beef jerkey. If the beetles have no specimens to clean, they are fed pigs' feet.

Scientists can clean bones by hand, but, as Radford Arrindell, senior scientific assistant of the Department of Ichthyology, explains, "The beetles are able to leave many fine bones attached which would probably be lost or hidden with hand preps. The number of specimens produced is also higher per week with the colonies."

On a recent visit to the beetles, Clare Flemming of the Mammalogy Department adds, "The little ones are good at cleaning small tight areas." Because teeth and ear bones are the skeletal diagnostic features for all mammals, bone studies are extremely important. She lifted the lid to check on the beetles and spritzed them with water. "They prefer a warm, humid environment. We spritz the beetles with water to keep the humidity level high and to keep the muscle fiber palatable."

members' programs

Lectures

A Nest of Dinosaurs: The Story of Oviraptors

A Family Lecture

Sunday, December 12, 2:00 p.m.

Based on the new childrens' book, *A Nest of Dinosaurs: The Story of Oviraptors*, Paleontologist Mark Norell recounts the 1993 expedition to Mongolia's Gobi Desert and its two astounding discoveries—a mature dinosaur embryo in its shell and the bones of a dinosaur perched on a nest of eggs.

Evidence from the first oviraptor fossil finds, first discovered in 1923, concluded that the species was believed to have ravaged plant-eating dinosaur nests, branding the oviraptor, or "egg stealer," as a killer. As a member of the Museum team, Norell, chair of the Museum's Division of Paleontology, changed all that with the discovery that overturned a theory held for over 70 years. Thanks to the team's detective work, the oviraptor was finally acquitted.

Norell will discuss the area of Ukaa Tolgod in Mongolia, explaining why it has proved to be such a treasure-trove for oviraptor fossils. He will also talk about their most recent discovery in comparison to the original finds, and the evolutionary process as a whole.

A Nest of Dinosaurs: The Story of Oviraptors (Doubleday, October 1999), authored by Norell and Lowell Dingus, will be available for purchase and signing following the talk.

Location: Kaufmann Theater. Cost: Members: $10 adults; $5 children. Non-members: $12 adults; $6.50 children. Program Code: MM12-1.

Workshop

Make Your Own Gingerbread House

Saturday, December 18, 10:00 a.m. & 2:00 p.m.; and Sunday, December 19, 10:00 a.m. & 2:00 p.m.

Come build a house of sweets for the holidays and create memories for years to come. Roofs, chimneys, and doorways will spring to life as children mindfully place each gumdrop, starlight, and candycane. Young contractors' eyes will sparkle and their mouths water as they sample the building materials to guarantee suitability. Although your own house will be of your design, consultant June Myles will be on hand to help you create your no-bake gingerbread fantasy. Members often erect new—and improved—versions each year.

Dinosaur eggs in situ, AMNH

For children ages 5-10. Location: Room 319. Cost: $42 for one child and accompanying adult. Members only. Code: December 18 morning, MM12-2, afternoon, MM12-3; December 19, morning, MM12-4, afternoon, MM12-5.

Anticipations...Visions of a New Millennium

Guest Lecturers: Jules Verne and H.G. Wells (portrayed by Robert Campanile)

Friday, December 17, 6:30 p.m.

In 1863, Jules Verne wrote a novel that was considered too unbelievable to be published. It was lost for more than 100 years until his great grandson found it in a safe. *Paris in the 20th Century* is a prophetic novel of Verne's conception of the new millennium.

In 1899, standing on the cusp of the 20th Century, H.G. Wells also gazed into the future, reporting his projections in his book *Anticipations of the Reaction of Mechanical and Scientific Progress Upon Human Life and Thought*. Filled with shrewd, accurate predictions and some wild misses, this attempt by Wells is especially relevant as we stand on the edge of a new millennium.

Robert Campanile will moderate the debate between the two great visionaries and even offer some humble speculations of his own.

Location: Kaufmann Theater. Cost: Members: $5. Non-members: $7. Program Code: MM12–6.

A Dickens of a Scrooge

Saturday, December 11, 6:30 p.m.

Warm the cockles of your heart and feel good about the holidays by reliving the spirit of the season with our annual reading of Charles Dickens *A Christmas Carol*. All your favorite characters will come alive via Robert

Campanile's vivid reading. Projections of 19th century woodcut engravings will complement the experience. Join us and remember the real reason we celebrate the holidays.

Location: Kaufmann Theater. FREE. Members' Only. Program Code: MM12-7.

Members' Expeditions

All expeditions, unless otherwise noted, include round-trip transportation (via charter bus from the Museum) lectures, and all admission fees. A detailed itinerary, along with specific instructions, will be sent to all registered participants approximately two weeks prior to the program date.

Hidden New York

Sunday, December 5, 9:00 a.m. to 5:00 p.m.

Join Sidney Horenstein, coordinator of the Museum's environmental programs, for a day exploring some of the more unusual places in New York City. In addition to learning how geology played a role in community development, we will see how local people and local government have reused and redeveloped the neighborhoods.

Explore a former summer beach colony that has been renovated and converted. The old structures unofficially have become permanent residences, necessitating the creation of their own volunteer fire department. Learn how the oldest bridge in New York, the Highbridge, built in 1842, was altered in 1923 and its arch stone used to make a major retaining wall along a Bronx avenue. Discover how a dumpsite was converted to an outdoor sculpture garden. As we travel through Manhattan, the Bronx, and Queens, we will see unusual views of the city from the lesser visited places.

Cost: $50 members; $60 non-members. Program Code: MM12-8.

Illustration from *The Search for the Giant Squid*, by Richard Ellis

Previously Listed

Members' Expeditions

New Jersey's Great Swamp and Jockey Hollow

Saturday, November 6, 8:30 a.m. to 5:00 p.m.

Sidney Horenstein, the Museum's coordinator of environmental programs, leads this trip to explore the ecological niches and geological features of these nearby fascinating areas. Cost: Members: $55; Non-members: $65. Code: MM11-2.

Tibetan Treasures

Sunday, November 7, 10:00 a.m. to 5:00 p.m.

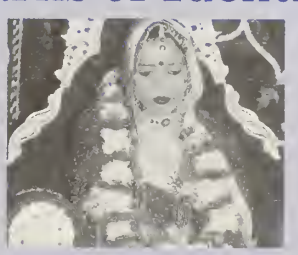
The Newark Museum's world–renowned collection of Tibetan art will be highlighted in a major comprehensive exhibition, *Sacred Realm: Treasures of Tibetan Art in the Collection of the Newark Museum.*

Enjoy a before–hours private tour of the exhibition with Valrae Reynolds, curator of the Asian collections.

Cost (including lunch): Members : $48; Non–members : $58. Code: MM11-3.

Please join us for the Members' Preview Party of

Body Art: Marks of Identity



Friday, November 19, 5:30 to 8:30 p.m.

Kindly R.S.V.P. to the Membership Office at 212-769-5606.

Baseball: A Natural History

Thursday, November 11, 10:00 a.m. to 5:00 p.m.

Peter Laskowich, urban historian, will trace the history and rules of the game to the interplay of the natural environment and social conditions in late 19th– and early 20th–century New York City. Our charter coach will take us to the sites of the former Ebbets Field and the Polo Grounds, and on to the home of the Bronx Bombers.

Enjoy a private, behind-the-scenes tour at Yankee Stadium with Tony Morante, Public Relations Director.

Cost: Members: $55; Non-members: $65. Code: MM11-4.

Members' Lecture

The Night the Stars Fell

Wednesday, November 3, 7:00 p.m.

Every year, for two or three nights in mid-November, a modest number of meteors falls—perhaps eight or ten in an hour's watch. In 1999, which is a favored year, the Leonids may fall by the hundreds, the thousands, or even the tens of thousands per hour. This in–depth lecture by Joe Rao will prepare you for the mid–November arrival of the Leonids.

Cost: $8 members; $10 non-members. Location: Kaufmann Theater. Program Code: MM11-1.

The Search for the Giant Squid: Continued

Tuesday, November 9, 7:00 p.m.

Join Richard Ellis, one of America's most celebrated marine artists and writers, for a fascinating evening learning about the search for the elusive giant, *Architeuthis*—an animal that has never been seen alive in its deep–water habitat.

Kaufmann Theater. Cost: Members: $10; Non-Mem.: $12. Code: MM11-5

november

Current Exhibits

The Butterfly Conservatory
Open through February 27

Monday 1
Stellar Collisions and the Evolution of Globular Clusters
Planetarium Lecture
7:30 p.m.

Tuesday 2

Wednesday 3
Life in Extreme Environments
Lecture
7:00–8:30 p.m.

Thursday 4
Geology for Travelers
Lecture
7:00–8:30 p.m.

Friday 5
The World of John Burroughs
Lecture
7:00–8:30 p.m.

Saturday 6
New Jersey's Great Swamp and Jockey Hollow
Members' Expedition
8:30 a.m. to 5:00 p.m.

Choosing and Using a Telescope
Planetarium Course
10:00 a.m.–4:00 p.m.

Sunday 7
Tibetan Treasures
Members' Expedition
10:00 a.m. to 5:00 p.m.

Stars in My Eyes
Planetarium Courses
2:00–4:00 p.m.

Monday 8

Tuesday 9
The Search for the Giant Squid: Continued
Members' Lecture
7:00 p.m.

Town and Country Star Gazing
Planetarium Course
6:30–8:10 p.m.

Wednesday 10
Journeys to Mars and Beyond
Planetarium Course
6:30–8:10 p.m.

Thursday 11
Baseball: A Natural History
Members' Expedition
10:00 a.m. to 5:00 p.m.

Friday 12

Saturday 13
Choosing and Using a Telescope
Planetarium Course
10:00 a.m.–4:00 p.m.

Sunday 14
Stars in My Eyes
Planetarium Courses
2:00–4:00 p.m.

Monday 15

Tuesday 16
Town and Country Star Gazing
Planetarium Course
6:30–8:10 p.m.

Wednesday 17
Journeys to Mars and Beyond
Planetarium Course
6:30–8:10 p.m.

Thursday **18**

Friday **19** **Members' Preview Party**
"Body Art: Marks of Identity"
5:30–8:30 p.m.

Saturday **20** **"Body Art: Marks of Identity" opens**

Choosing and Using a Telescope
Planetarium Course
10:00 a.m.–4:00 p.m.

Toré Ritual by Thydyo and Tekaina of the Kariri-Xocó People
Song and Dance Interactive Performance
1:00 & 3:00 p.m.

unday **21** **Toré Ritual by Thydyo and Tekaina of the Kariri-Xocó People**
Song and Dance Interactive Performance
1:00 & 3:00 p.m.

Stars in My Eyes
Planetarium Courses
2:00–4:00 p.m.

onday **22** **Galileo's Daughter**
Planetarium Lecture
7:30 p.m.

uesday **23**

Wednesday **24** **Journeys to Mars and Beyond**
Planetarium Course
6:30–8:10 p.m.

Thursday **25**

Friday **26**

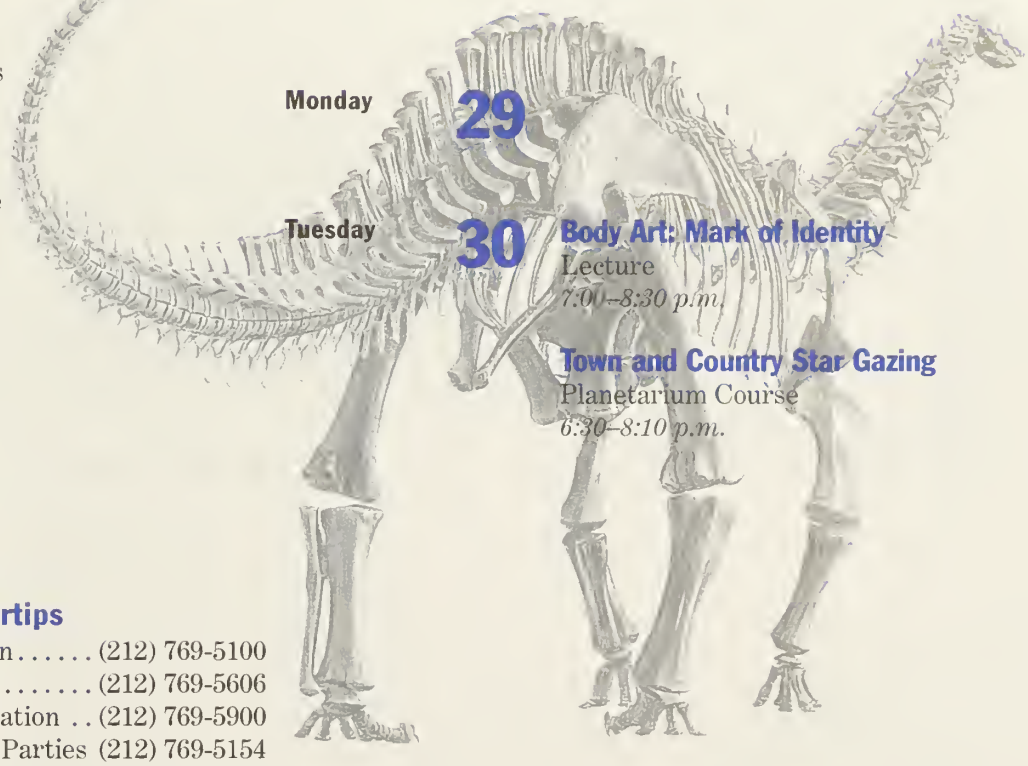
Saturday **27** **Body Art with a Difference**
Lecture
7:00–8:30 p.m.

Sunday **28** **Stars in My Eyes**
Planetarium Courses
2:00–4:00 p.m.

Monday **29**

Tuesday **30** **Body Art: Mark of Identity**
Lecture
7:00–8:30 p.m.

Town and Country Star Gazing
Planetarium Course
6:30–8:10 p.m.



Phone Numbers at Your Fingertips

Museum Information	(212) 769-5100
Membership Office	(212) 769-5606
Planetarium Information	(212) 769-5900
Members' Birthday Parties	(212) 769-5154
Education Department	(212) 769-5304
Planned Giving Office	(212) 769-5119
Discovery Tours	(212) 769-5700
*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
Website	http://www.amnh.org

For program reservations, please call (212) 769-5200

program listings

Department of Education Lectures and Field Trips

The World of John Burroughs

Friday, November 5, 7:00–8:30 p.m. Cost: $12 ($10 members). Program Code: ED99228L

At the turn of the century, John Burroughs (1837-1921) was America's best-known naturalist and advocate of the simple life. During his nearly 84 years, Burroughs published 28 books and numbered among his friends Walt Whitman, Theodore Roosevelt, John Muir, Thomas Edison, and Henry Ford.

Edward Kanze, author of *The World of John Burroughs* (recently published in paperback by Sierra Club Books), and a wildlife photographer and naturalist, will portray Burroughs and his world through color and black-and-white slides, quotations, and stories. Kanze's book will be available for purchase and signing.

Patterns of Evolution: The New Molecular View

Friday, November 5, 7:00–8:30 p.m.

Cost: $12 ($10 members). Program Code: ED99229L.

The advent of DNA analysis—the examination of the genetic material of both fossils and living organisms—has enhanced, and in many cases, rewritten our understanding of life on Earth, from the deep past to the present. In this lecture, acclaimed science writer Roger Lewin, author of *Patterns of Evolution*, a frontline report on the ways molecular genetics techniques are revolutionizing the study of evolution, describes how scientists are using cutting-edge molecular techniques to find the roots of the evolutionary tree, investigate how species diverge and new species emerge, track HIV infection and other diseases, guide conservation efforts, and gain new insights into animal behavior. The book *Patterns of Evolution* will be available for purchase and signing.

John Burroughs, photo: AMNH

Planet Earth

Five Saturdays, November to March once per month, 1:30–4:00 p.m.

Fee: $30 for series ($27 members); $1 each ($10 members). Program Code: ED99234L.

In this five–part series, geologists an climate specialists examine the five big questions posed in the new Gottesman Hall of Planet Earth. Eac month a talk will discuss a separate question. The program would last tw and a half hours with a short break and light snack for participants. For additional information and a program call 212-769-5176.

November 6 How Has the Earth evolved?
Stephen J. Mojzsis, University of California, Los Angeles

December 11 Why Are There Ocean Basins, Continents and Mountains?
Bruce D. Marsh, Johns Hopkins University

January 8 How do We Read the Rocks?
Nickolas Christie-Blick Lamont-Doherty Earth Observatory of Columbia University

February 5 What Causes Climate and Climate Change?
Charles F. Keller, Jr. , Los Alamos National Laboratory

March 11 Why is the Earth Habitable?
Edmond A. Mathez, Department of Earth and Planetary Sciences, American Museum of Natural Histo

Body Art

Three Tuesdays, November 30, December 7 and 14, 7:00–8:30 p.m.

Fee: $25 for series ($22.50 members, senior citizens, students); $12 each ($10 members, senior citizens, students). Program Code: ED99235L.

The decorated human body is a unique canvas that has been used by people all over the world for thousands of years to define the relationship of the individual to society and of societies to one another. This lecture series will examine cultural invention and individual artistry in connection with the exhibition "Body Art: Marks of Identity" and two aspects of body art traditions and culture.

November 30 **Body Art: Marks of Identity**
Enid Schildkrout, chair, Department of Anthropology, and exhibition curator

December 7 **Self Adornment in India**

Pravina Shukla, exhibition content coordinator, Department of Anthropology

December 14 **Dress and Fashion**
Valerie Steele, chief curator of the Museum at the Fashion Institute of Technology.

Body Art with a Difference

Four Saturdays, November 27 to February 26, 7:00–8:30 p.m.

Fee: $30 for series ($27.00 members, senior citizens, students); $12 each ($10 members, senior citizens, students). Program Code: ED99236L

November 27 **Writing on the Body: The Tattoo in Popular Practice and Scientific Discourse in European History**
Jane Caplan, chair of History Department, Bryn Mawr College

December 4 **Foot Binding: Body Art or Mutilation?**
Dorothy Ko, professor of Chinese history and women's studies at Rutgers University

January 22 **Art of the Tattoo**
Hanky Panky, tattoo artist and founder of Amsterdam Tattoo Museum

February 26 **Body Art and Youth Cultures**
Daniel Wojcik, associate professor English and folklore studies, University of Oregon

Animal Drawing

Tuesdays through November 30, 7:00–9:00 p.m.

Fee: $135 (materials not included). Program Code: ED99349X. Natural Science Center. 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 snow. After Museum hours, students draw from the famed dioramas, as well as from mounted skeletons, in the Halls of African Mammals, North American Mammals, North American Birds, Ocean Life, and Fossil Mammal. Quinn, senior assistant manager, exhibition department, discusses drawing technique, animal anatomy, and the role of the artist at the Museum.

No class on November 2

Geology for Travelers

Landscape Classification and Geological Structures

Thursday, November 4, 7:00–8:30 p.m.

Fee: $25 for series ($22.50 members); $12 each ($10 members). Program Code: ED99226L

The final of three slide-illustrated lectures that introduce basic concepts in geology and suggest how to apply them to places that you will visit or have traveled to. A review and classification of the Earth's major landscapes and their underlying geological structures complete the survey. Sidney S. Horenstein, geologist and coordinator of environmental public programs at the Museum, conducts the series.

Life in Extreme Environments

Strategies in the Search for Life Beyond Earth: Can We Plan to Make Major Discoveries?

Wednesday, November 3, 7:00–8:30 p.m..

Fee: $30 for series ($27 members); $12 each ($10 members). Program Code: ED99219L.

Dr. John R. Delaney, professor, Oceanography University of Washington

Little is known about what is left to be discovered. Yet it can be argued that much of science takes place in the wake of major discoveries. Perhaps one of the most challenging and least understood aspects of modern science involves the elements that lead to paradigm–shifting discoveries. What are some of these essential elements for such discoveries?

program listings

Planetarium Courses

Choosing and Using a Telescope

Saturdays, Nov. 6, 13, 20, 10 a.m.–4 p.m.

Cost: $95. Program Code: HP4.

An introduction to choosing and using telescopes for amateur astronomy, this course covers the basic optics of telescopes, equatorial and alt-azimuth 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 needed. This course is useful both for people who might purchase a telescope and for those who have one but aren't sure how to use it.

Town and Country Star Gazing

Tuesdays, Nov. 9, 16, 30, 6:30–8:10 p.m.

Cost: $35. Program Code: HP9.

Locate and identify the brightest stars, whether you are observing from the center of a large city or under dark country skies. Interesting star clusters, nebulae, and galaxies found among the constellations are described and illustrated. Myths and legends of cultures relating to the sky are told. Uses of binoculars, cameras, and telescopes to enhance your observing experiences will be discussed.

Stars in My Eyes

Sundays, Nov. 7, 14, 21, 28, 2–4:00 p.m.

Cost: $60. Program Code: HP16.

This course, for children ages 8 and 9, will introduce the young science enthusiast to the basic concepts of astronomy, including the planets, constellations, Moon, and the comets. Each class will include hands–on activities and a project to take home.

Journeys to Mars and Beyond

Wednesdays, November 10, 17, 24, December 1, 8, 15, 6:30-8:10 p.m.

Cost: $70. Program Code: HP19.

This course, as taught by a participating scientist on the *Mars Climate Orbiter* and other space flight missions, will present the latest developments in the ongoing exploration of Mars and other planets, as well as the considered prospects for eventual space pioneering by humans. Special topics will include the principles of orbital space flight, Mars weather and climate, outer planet reconnaissance, the prospects for extraterrestrial life, and space–borne resources.

Mars, photo by NASA

Portia Rollings, AMNH

Giant Squid

The world's best-preserved specimen of a giant squid, the largest living invertebrate on Earth, is now on display in the Hall of Biodiversity. The 25-foot-long male giant squid (*Architeuthis kirkii*) weighs 250 pounds and came to the Museum in 1998 from New Zealand's National Institute of Water and Atmospheric Research.

The squid's arrival in June 1998 attracted considerable attention because so little is known about these mysterious creatures. Giant squid live at least a mile below the ocean's surface, and they have never been seen alive.

museum spotlight

Volunteer Arnold Fleisher, AMNH

Bison in the Attic

The attic of the American Museum of Natural History is legendary for evoking a sense of mystery, curiosity, and—with its century old catwalks and hidden passageways—possibly a bit of adventure, too. Since anyone can remember, the Mammal Division has used the attic for the storage of its large ungulate bones, including bison, hippos, camels, llama, and wild sheep bones, among other things.

Over the course of the past year, Mammalogy staff and volunteers have ventured into the darkest corners of the attic on a mission to brighten things up. Attic renovations began with fresh paint and hundreds of new storage cabinets, but have now progressed to the more challenging stage of "curation," or the process during which curators carefully sort through the bones in an effort to clean and record each specimen.

The American bison collection was chosen as the first attic collection for curation." Most of the specimens were collected in the 1870s, when hundreds of sun-bleached skeletons could be simply picked up from the Great Plains of the American West in the wake of government bison extirpation programs. Those days are gone, as are most of the bison, but this is exactly why the collections are so valuable: they are physical evidence of a time now gone, a time when large herds of these animals roamed more freely.

One of the surprises uncovered was a small dusty box containing two very old bison teeth. What made the find remarkable was the fact that the teeth were collected in New York State, and with some detective work Museum staff were able to determine that they were found at a prehistoric Iroquois site in Jefferson County, New York, by a Mr. Alanson Skinner. Although it is generally known that wild bison herds historically ranged as far east as New York, the two teeth that they held in their hands are special because they represent the physical basis of this historical knowledge.

The overhaul of the American bison collection is nearly complete but the hippopotamus, camel, big horn sheep, and other collections remain to be curated. Interested volunteers are needed, but be warned, you never know what you may uncover in some last remaining dark corner.

DISCOVERY TOURS TRAVELERS PROVIDE FOR THE MUSEUM'S FUTURE AND FOR THEIR OWN RETIREMENT

Bob and Marie Bergh love to travel. Since their first trip with the Museum in the early 1980s, they have participated in eight Discovery Tours, to destinations as diverse as the British Isles, the Black Sea, Scandinavia, the Caribbean, India, and Southeast Asia.

Exploring the world on Discovery Tours, Bob and Marie have become convinced of the significance of the Museum's work. This is why they recently decided to provide for the Museum's future through a Charitable Gift Annuity.

A Gift Annuity is a way to support the Museum that provides a fixed income for life to one or two people. For more information, please call (800) 453-5734 or reply by mail to: Office of Planned Giving, American Museum of Natural History, Central Park West at 79th Street, New York, New York 10024.

Please send information on:
____ Gifts that provide lifetime income.
____ Bequests to the Museum in my will.
____ I have already included a provision for the Museum in my estate plans.

Name _____
Address _____
_____
Phone(Home)_____Office_____
My (our) birth date(s) is (are):_____,_____
Your reply is confidential and implies no obligation. 11/99

museum notes

Frederick Phineas Rose

It is with profound sorrow and a deep sense of loss that the American Museum of Natural History acknowledges the death of Trustee Frederick Phineas Rose, who died September 15, at the age of 75.

Few have given so unstintingly of themselves to make this city a more glorious place in which to live. The lives of all New Yorkers have been enriched by his extraordinary vision, integrity, and generosity. From the sciences and the humanities to the performing arts, Fred Rose's wide–ranging and enlightened philanthropy has made all our lives brighter, our institutions stronger, and our city more vibrant. He was a unique New Yorker, a treasure who will be sorely missed.

Fred joined the Museum's Board of Trustees in 1991, serving on numerous committees over the years, including Building and Grounds, Development, Education and Exhibition Policy, Executive Compensation, Investment, Library, Planning, Architectural Projects Task Force, Campaign Steering, and the Subcommittee on the Fourth Floor Project. Perhaps most memorably, Mr. Rose served as Chairman of the Planetarium Project Committee, later known as the Rose Center Committee.

But his greatest contribution to this institution will be the Frederick Phineas and Sandra Priest Rose Center for Earth and Space, due to open in early 2000. The Museum is especially saddened that his death has occurred on the eve of this extraordinary legacy.

The Museum extends its deepest sympathy to Mr. Rose's family: his devoted wife, Sandy; his children, Deborah, Jonathan, and Adam; and his brothers, Daniel and Elihu, and their families.

Members' Family Holiday Party

Saturday, December 11, 1:30–4:30 p.m.

You're invited to our second annual event! Bring the family for a holiday adventure "under the sea" in the Museum's Hall of Ocean Life. Children of all ages can sing and party to their heart's delight to the music of David Grover and the Big Bear Band, the PBS award-winning family/folk trio. Join in singing the group's much-loved songs celebrating Chanukah and Christmas.

Special workshops and new fun activities will add to a delightful afternoon. Children will have the opportunity to create a special holiday gift to take home.

The event is free and open to Family and Higher Level members only. (You must register through Central Reservations in order to attend.)

Program Code: MM12-9.

Museum Tours

Thematic tours of the Museum's collections. Tours begin at the entrance to the Akeley Hall of African Mammals, on the second floor.

In the Beginning

November 6; 11:45 a.m.

Creation stories from around the world.

Hall of Planet Earth

November 2, 9, 16, 30; 2:45 p.m.

Come and explore our newest hall.

Tales of Tails

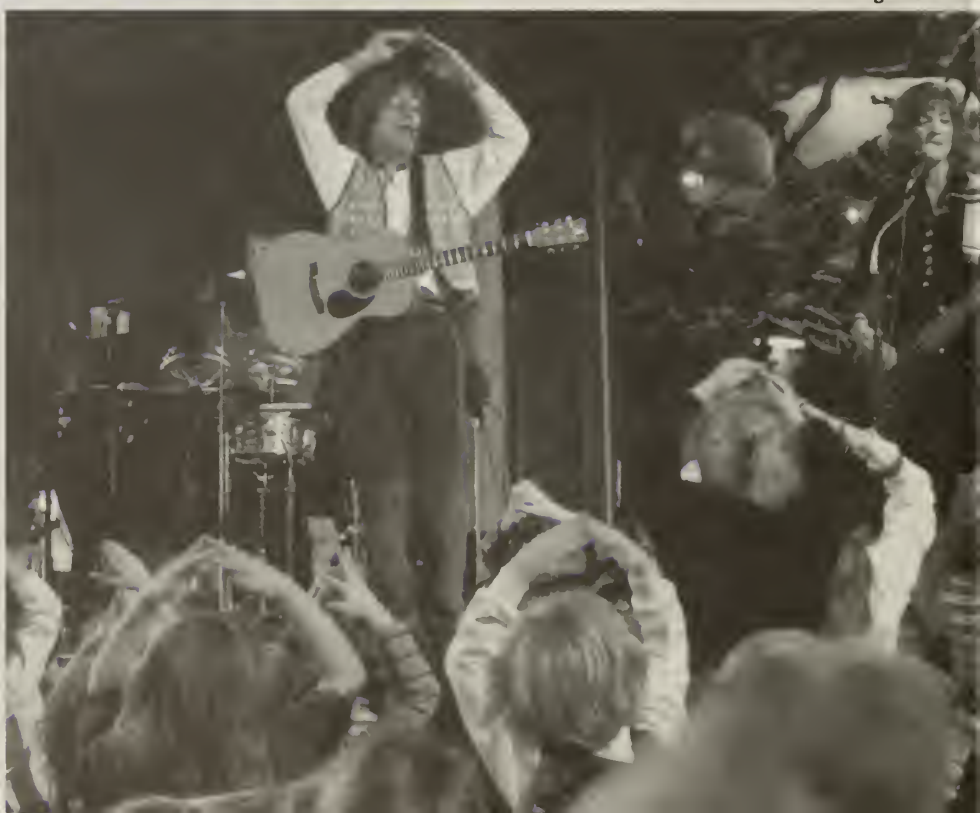
November 2, 9, 16, 30; 2:45 p.m.

Intriguing stories of tails—from comets to lions.

Dynamic Planet Earth

November 11; 12:45 p.m.

David Grover and the Big Bear Band



lovember 12, 26; 1:45 p.m.

Vhat causes ocean basins, mountains, nd even continents to form? Find out iore about the dynamic forces that hape planet Earth.

xtinction is Forever

'ovember 13; 12:45 p.m.

he causes of extinction, new echniques that attempt to halt it, and ie international cooperation needed preserve the "web of life" for future enerations.

ur Incredible Planet Earth

'ovember 20; 11:45 a.m.

n incredible adventure to unlock the ysteries of our 4–billion–year–old d rock from the sun: the birth of olcanoes, the creation of mountains id continents, the terror of rthquakes, the fearsome beauty of imate/weather, and the creation of a e–giving environment.

r. Maturin's Natural History

'ovember 20; 10:45 a.m.

tour based on the sea stories of atrick O'Brien.

he Original Lost World Tour

ovember 20; 1:45 p.m.

he fascinating animals of Sir Arthur nan Doyle's *The Lost World.*

larine Mammals

ovember 27; 12:45 p.m.

baby that gains ten pounds in an our, a female seal pregnant all its life, id the "Lord of the Arctic," who ught the natives how to hunt and uild their homes.

alendar: The Millennium our

ovember 28; 1:45 p.m.

's about time!

Exercise
your body

Educate
your mind

Explore
the world

Walk on the Wild Side
American Museum of Natural History

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 ($125) and above

December 1, 1999 (Kick-Off Event—Open to non-Members)
Walk on the Wild Side on Wednesdays
15 Sessions between December 1 and March 15

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 Debbie Downs at (212) 769-5588.
Use the Museum's main entrance on Central Park West @ 79th Street.
Come dressed to powerwalk and set your own pace.
Coat check available.

Give a Gift for All Seasons

A Membership in the American Museum of Natural History

Why not send a unique gift that lasts throughout the year?

Your friends and relatives can enjoy all the privileges of membership, including complimentary Museum admission, a year's subscription to *Natural History* magazine and *Rotunda* (our members' newsletter), invitations to members' previews, and much more.

Choose either the Individual $45, Dual $60, or Family $75 category, and we'll do the rest. As a special holiday bonus, we'll send AMNH's beautiful 2000 engagement calendar (a $13.95 value, pictured right), along with a personalized holiday card to announce your thoughtful gift.

Please send a one-year membership at the category indicated to the person(s) listed below:

[ ] Individual [ ] Dual [ ] Family

Recipient's Name

Street Address

City State Zip

[ ] Individual [ ] Dual [ ] Family

Recipient's Name

Street Address

City State Zip

Enclosed is my check for $_____ Please charge to my ____Visa ____ MC ____ Amex

Card no. _____ Expiration date _____

Signature_____

Your Name

Street Address Telephone

City State Zip

I understand that this special offer, which expires December 31, 1999, is not valid for renewing my own membership.

Please mail this form, with your payment, to: AMNH, Membership Department,
Central Park West @ 79th Street, New York, N.Y. 10024-5192. Phone: 212-769-5606.

Museum Hours

Exhibition Halls

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

The Museum Library

Tues. - Fri.	11:00 a.m. - 4:00 p.m.

Museum Dining

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.

Natural Science Center

There are many wild places in the New York area, and the Center features these habitats' 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.

The Museum Shop

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

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.

Central Reservations Cou

Rotunda
AM. MUS. NAT. HIST. LIBRARY
Received on: 11-05-99

Program Name/Date # Member

Total $

Mr./Mrs./Miss/Ms.

Address

City State Zip

Telephone (Day) (Evening)

Membership No.

❑ Check ❑ Am.Ex. ❑ Visa ❑ Master Card

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 above 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.

Entrances

During Museum hours, visitors can enter the building through the 77th Street entrance, or the first- and second-floor Roosevelt Memorial Hall entrances (79th Street and Central Park West). The subway entrance is temporarily closed for construction. 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.

American Museum of Natural History

Membership Department
Central Park West at 79th Street
New York, New York 10024-5192

Please join us for a Members' Preview Party of "Body Art: Marks of Identity," Friday, November 19th, from 5:30 to 8:30 p

rotunda

Vol. 24 No. 11 December 1999

the new zeiss projector
times capsule
members' programs

H70
U52N5
. 24
o. 11
ecember
999

AMERICAN MUSEUM OF NATURAL HISTORY

starry, starry days & nights

The first model designed to simulate the experience of viewing the night sky was a late-nineteenth-century 12-foot metal globe pierced with hundreds of holes meant to represent the fixed stars. Star buffs had to wait until the 1920s for the next invention, when the German optics company Carl Zeiss introduced the modern electro-optical planetarium, which allowed stars, moons, and planets to be projected and moved about a large, domed screen. Generations of visitors to the Museum's old Hayden Planetarium became acquainted with the universe thanks to just such a Zeiss system, which was in place when the original Hayden opened its doors to the public in October 1935.

Now, the new Hayden Planetarium, set to open in February 2000, will be the centerpiece of the spectacular Frederick Phineas and Sandra Priest Rose Center for Earth and Space. With its state-of-the-art star and planet projector, created by the Carl Zeiss Company specially for the Hayden Planetarium and made possible by a generous gift from Museum trustee, the late Joan Bull, visitors will see the starry sky in a whole new light.

Where before the old Hayden with its Zeiss' dumbbell-shaped projector—itself an object of fascination—created a model of the universe limited to depicting only the night sky from an Earth-centered perspective, the new Zeiss Universarium MkIX, three generations more advanced than its predecessor, creates its remarkably realistic version of the night sky using nine-thousand fiber-optically projected stars and 84 deep sky objects. The new Zeiss, in the form of a single "star ball" covered in individual projectors, is complemented by a row of eight box-like projectors that generate planetary images.

Director of Special Projects James Sweitzer and his skilled staff, along with Neil de Grasse Tyson, Frederick P. Rose Director of the Hayden Planetarium, worked closely with Zeiss engineers, scientists, and designers, who, through endless hours of research and development, came up with the final product—the Museum's own custom-designed Universarium MkIX.

The Universarium, which incorporates constellation drawings by local New York artist Scott Ewalt, is considered the most modern star and planet projector to date. The new projector can also be programmed to "follow" comets and provide sky displays from the perspective of any of our solar system's planets.

James Sweitzer and Neil de Grasse Tyson with the Hayden Edition Zeiss Universarium MkIX projector, generously supported by Joan Bull.

For views of the universe past our backyard, the new Hayden Planetarium will also utilize recent advances in technology—computers and software used to create Hollywood special effects that incorporate the latest astronomical images and discoveries—to create one-of-a-kind digital-dome space shows that will allow the viewer unprecedented access to the world beyond our solar system. These shows will dramatize the latest images and discoveries of planetary and space science, made available by such sources as NASA's Jet Propulsion Laboratories and Hubble Space Telescope.

With features such as a center projection platform, which can be lowered so that visitors are able to walk freely through space, and trackable sound, allowing sounds to be directed and controlled to enhance the moving images, the new Hayden Planetarium and its Zeiss Universarium will allow future generations of visitors and their imaginations to conceive of the vastly fascinating universe in startlingly original ways.

Support for the new Hayden Planetarium has been provided by a generous grant from the Charles Hayden Foundation.

Cover: Installation of the Universarium. Above: Computer rendering of the new Zeiss projector. Above right: Westinghouse time capsule, 1939.

the best of Times

A thousand years from now, what will people want to know about our world in the late twentieth century? The *New York Times* decided to try and answer this question by sponsoring an international competition to design a time capsule for the next millennium. Beginning December 4, the fruits of the competition will be on display in the exhibition "Capturing Time: The New York Times Capsule," at the Museum—where the Times Capsule will be installed, to remain unopened until the year 3000.

This is not the first time that a collection of an era's cultural and intellectual keepsakes will be installed on Museum grounds: back in 1874, a time capsule was included in the Museum's cornerstone, laid by President Ulysses S. Grant.

Today, the *Times* asked participants to stretch the concept of a time capsule in new directions, while at the same time devising a viable means of preserving the information held within until 3000 A.D. Nearly fifty designers submitted designs. The exhibition will include a number of notable proposals along with the Museum's own time-related artifacts.

Assuming that our culture's most obvious artistic, intellectual, and technological triumphs will be preserved by libraries and universities, the Times Capsule tried instead to include everyday objects that would tell people of the future who we were and how we lived—something about us they might not already know from the officially-sanctioned artifacts.

To accomplish this, *Times* reporters were sent to the demographically representative American town of Fountain, Colorado, to ask residents what they thought should be included in the Capsule. Towns in Russia, France, India, Zimbabwe, and Brazil were similarly canvassed for their suggestions.

In addition, a Web site was created to allow cybervisitors to make their own content suggestions. (The Web site will be available as part of the exhibition, allowing visitors to offer their ideas.) And, on September 9, 1999, at 9:09 a.m., a hundred writers, photographers, and artists were sent out into New York City's five boroughs to document one minute in the City's history.

As a result of all these novel efforts, the contents of the Capsule, some of which will be on display in Gallery 77 until its installation, will cover everything from hair samples that can provide DNA profiles of their late-twentieth-century subjects to an *Encyclopedia of Lost Practices*, which present-day writers have compiled, listing behaviors they don't expect to last through the next millennium.

A sampling of the competition's notable entries, who were each selected by a panel of judges affiliated with the *Times*, include a design team from Cooper Union, Santiago Calatrava of Spain, and Japan's Kenji Ekuan of GK Design Group.

Considering the estimates that only one of every 1000 capsules buried is ever found, the decision to install the Times Capsule in the Museum seems as good a method as any to beat the odds.

rotunda

ISSN 0194-6110

Vol. 24, No. 11, December 1999

John Davey, Editor
Rosemary Caulk, Director of Membership
Ellen V. Futter, President
Anne Sidamon-Eristoff, Chairman

Rotunda is published monthly, except for a combined issue in July/August, by the Membership Office of the American Museum of Natural History, Central Park West @ 79th Street, New York, N.Y. 10024-5192. Telephone: (212) 769-5606. Web address: www.amnh.org. Museum membership of $45 per year and up includes a subscription to *Rotunda*.

© 1999 American Museum of Natural History.
Periodical postage paid at Rutherford, N.J., and at additional mailing offices. Postmaster: Please send address changes to *Rotunda*, Membership Office, AMNH, at the above address. Printed in the USA.

Statement of ownership, management, and circulation: Title of Publication: Rotunda (ISSN 0194-6110). Date of filing: Sept. 27, 1999. Frequency of Issue: Monthly except for July/August issue. Number of issues published annually: 11. Annual subscription price: $45 a year or higher Membership. Complete mailing address of known office of publication: Central Park West at 79th Street, New York, NY 10024-5192. Complete mailing address of the headquarters or general business offices of the publisher: Same. Publisher: American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192. Managing editor: John Davey. Owner: American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192. Known bondholders, mortgages, and other security holders: None. The purpose, function and nonprofit status of this organization and the exempt status for Federal income tax purposes has not changed during the preceding 12 months. Extent and nature of circulation: (A) signifies average number of copies of each issue during during preceding 12 months, and (B) signifies average number of copies of single issue published nearest to filing date. Total number of copies: (A) 43,000, (B) 37,699. Paid circulation through Dealers and Carriers, Street Vendors, Counter Sales, and Other Non-USPS Paid Distribution: (A) and (B) None. Mail Subscription: (A) 37,699 (B) 37,699. Total Paid circulation: (A) 37,699 (B) 37,699. Free Distribution by Mail: None. Free distribution outside of mail: (A) 1,500 (B) 1,500. Total Distribution: (A) 39,199 (B) 39,199. Copies not distributed: (A) 3,801 (B) 3,801. Return from news agents: None. Percent paid and or Requested Circulation: 96%. I certify that the statements made by me above are correct and complete, (signed) John Davey.

Printed by Data Communique International, Carlstadt, New Jersey

events & exhibitions

Senses of Home: Dialogue within Communities

The neighborhoods of New York City are in a constant state of flux with a fluid intermixing of cultures. The search for common ground within these communities is also a reflection of current global issues. Each weekend in December, this program highlights a New York City borough and explores the many ways different communities, individuals, and organizations negotiate the issues, such as displacement, economic distress, gentrification, and the environment, that concern them.

Weekend Family Programs

Leonhardt People Center. Programs are free with Museum admission.

Saturday & Sunday, December 4 & 5

Communities of Manhattan

Saturday, December 4

Tompkins Square Park: Operation Class War on the Lower East Side

Paper Tiger Television, 1992. Video, 45 min.

1:00 p.m.

This video looks at Tompkins Square Park, on Manhattan's Lower East Side, the homeless problem of the neighborhood and the Riot of '88, and events leading to the closing of the park. The video includes local radio coverage, news clips, and comments by community activists. Housing activist Fran Luck will participate in a post-viewing discussion.

Harlem, a Community in Transition

2:00 & 3:30 p.m.

Darren Walker, Chief Operating Officer of Abyssinian Development Corporation (ADC), will share insights into Harlem's transition and the risks associated with its transformation. After the Harlem Renaissance of extraordinary cultural and artistic achievements, a gradual decay set in and, by the 1970s, Harlem had become a metaphor for the problems of urban America. Today riding on the coattails of a fast-growing economy and benefiting from public and private investment initiatives, Harlem is thriving again.

The Living Room Project in the East Village

2:30 & 4:00 p.m.

Yoshiko Chuma and the School of Hard Knocks perform modern dance pieces.

The Living Room Project, directed by Yoshiko Chuma and developed in part with the Danspace Project, has helped

Yoshiko Chuma and the School of Hard Knocks.

forge close connections between performers and community residents through the sharing of food and conversation. This project aims to heighten awareness of the Danspace Project at St. Mark's Church as a neighborhood center for the performing arts and to further develo relationships between artists, the community, and the theater.

Sunday, December 5

The Double Life of Ernesto Gomez

Catherine Ryan and Gary Weimberg. 1999. Video, 54 min.

1:00 p.m.

What happens to the parents, brothers, sisters, sons, and daughters of those willing to sacrifice everythin for their beliefs? This film tells the singular story of the son of Puerto Rican revolutionaries—his mother in prison, his father in exile—sent as a baby to Mexico to be raised in safety and anonymity. The mother, Dylcia Pagan, is a native New Yorker and o of the prisoners recently granted executive clemency by President Clinton.

Thirty Years of Arts-Led Activism in El Barrio, East Harlem

2:00 & 3:30 pm

The Taller Boricua is a founding force of artist living/work spaces in East Harlem, the Museo del Barrio, and th Julia de Burgos Latino Cultural Center. Miguel Angel Baltierra, an urban designer, will discuss the Cultural Corridor Project, a cultural

Indian Independence Day Parade

Photo by Corky Lee

aster plan that links the different rts institutions serving the ommunity with options for evitalization in collaboration with olumbia University.

aturday & Sunday December 11 & 12

ommunities of Queens

e #7 Train

ye Jung Park and J. T. Takagi, 1999. ideo, 29 min.

:00 p.m.

ach day, 500,000 people from 117 ifferent countries ride a red subway at runs to Times Square through ueens, the most ethnically diverse ea in the United States. The ocumentary follows four immigrant assengers: a Korean who works in arlem, two Otavalen street vendors ear Chinatown, and a gay Pakistani ri salesman on Fifth Avenue. ilmmakers Hye Jung Park and J.T. akagi will be available for discussion llowing the screening.

nerging Asian Communities: Immigration d Community Formation

00 & 3:30 p.m.

adhulika S. Khandelwal, who is rrently documenting the South sian immigrant communities of New rk City, presents slides depicting e cultural diversity of various ueens neighborhoods that have come home to immigrants from merous countries. She discusses rious activities of Asian immigrants, cusing on their efforts to maintain eir traditions while also rticipating in local life.

Greek Demotic & Rebetica Songs & Dance
2:30 & 4:00 p.m.

For twenty-five years, the Greek Cultural Center, Inc., based in Astoria, Queens, has offered New Yorkers of Greek descent the opportunity to study and celebrate their culture and retain their roots. The Center's folk dancers, accompanied by live music, perform a diverse range of dances, from the mountains of the mainland to the shores and the islands.

Saturday & Sunday, December 18 & 19

Communities of Staten Island

Speaking their Minds: Staten Islanders on CTV
Staten Island Community Television, 1999, Video, 15 min.

1:15 p.m.

A montage of public-access programs demonstrates the wide range of topics and issues that are part of the community dialogue created by local individuals at Staten Island Community Television.

Twenty-Five Years of Green
2:00 & 3:30 p.m.

Dick Buegler and Ellen Pratt, President and Recording Secretary of Protectors of Pine Oak Woods, will speak about protecting park lands from inappropriate use and saving woodlands, wetlands, and open spaces.

Staten Island Folk Stories
2:30 & 4:00 p.m.

Renowned storyteller Ben Jacobs performs five short stories based on social and historical accounts of Staten Island. The stories, which promote the unique character of this New York City borough, illustrate several historical incidents and local legends.

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.

Please see also the Museum Web site at www.amnh.org for program information.

The American Museum of Natural History wishes to thank the May and Samuel Rudin Family Foundation, Inc., and The Leonhardt Foundation for their support of these programs.

Museum Marks Holidays

It wouldn't be the holidays at the Museum without the Origami Holiday Tree, located in the first floor Theodore Roosevelt Hall. Adults and children alike can marvel at the tree and its decoration of Museum-themed orgami created especially for the tree by OrigamiUSA, a not-for-profit arts organization headquartered in the Museum.

And, following a new tradition begun just last year, the Origami Tree is joined by two merrymaking dinosaurs. Lit in festive colors, the Holiday Dinos, located outside of the Museum's main entrance, help put visitors and passers-by in the holiday spirit.

members' programs

Members' Tour

Art of the Diorama

Wednesday, January 12, 6:30 p.m.

Looking beyond the mounted animals in our world-famous habitat groups, we find some of the Museum's greatest assets. Almost completely unknown, and certainly underappreciated, the diorama background paintings are spectacular examples of landscape and wildlife art. Some were done by painters who spent their careers practicing this exacting and specialized art form, while others were done by artists like Francis Lee Jaques, Carl Rungius, and William R. Leigh, who are much better known for other artistic pursuits.

Join Richard Ellis, well-known painter and author of numerous books on marine subjects, for a fascinating evening exploring the halls and these amazing works of art. He will discuss this little-known art history aspect of the Museum, which is often overlooked because viewers do not realize what a treasure the paintings are. Ellis began his distinguished career in the Exhibitions Department at the Museum by painting a diorama background himself. Limited to 30 participants.

Cost: $30–Members only. Code:MM1-1.

Workshop

Geology Models

Wednesday, January 19, 6:30–8:30 p.m.

Learn many of the principles of geology in this special two-hour workshop with Sidney Horenstein, geologist and coordinator of the Museum's Environmental Programs. Participants will construct models of volcanoes and other geological features that explain the Earth's folding, faulting, plate tectonics, and landscape development.

Using paper, clay, and other materials that will be provided, you will have a great time creating your own models and interacting with other participants. Please bring your own scissors.

Room 319. Cost: $32 Members; $37 Non-Members. Code:MM1-2.

Members' Parent-Child Workshop

Building Space Ships

Saturday, January 15 and Sunday, January 16, 10:30 a.m.–12:00 p.m. or 1:30–3:00 p.m.

With the launching of the Museum's new Rose Center for Earth and Space in early 2000, we are sending out the first call to all intergenerational wanna-be starship captains. Begin planning your journey to the final frontier by joining June Myles to create your own unique model spacecraft.

The mission is to build a model futuristic spacecraft. No computerized engineering plans or instruction manuals will be provided; however, a wealth of recyclable materials will be supplied to inspire the inventor/designer in all participants. This adult-child workshop is suitable for children ages 7 and up. Of course, all spaceships will be beamed home.

Cost: $38 per couple (adult & child) –Members only. Code:MM1-3 and MM1-4.

Previously Listed Lectures

A Dickens of a Scrooge

Saturday, December 11, 6:30 p.m.

All your favorite characters will come alive via Robert Campanile's vivid reading of Charles Dickens' *A Christmas Carol*. Projections of 19th century woodcut engravings

will complement the experience. Join us and remember the real reason we celebrate the holidays.

Location: Kaufmann Theater. FREE. Members Only. Program Code: MM12-7.

A Nest of Dinosaurs: The Story of Oviraptors

A Family Lecture

Sunday, December 12, 2:00 p.m.

Based on the new childrens' book, *A Nest of Dinosaurs: The Story of Oviraptors*, Paleontologist Mark Norell recounts the 1993 expedition to Mongolia's Gobi Desert and its two astounding discoveries—a mature dinosaur embryo in its shell and the bones of a dinosaur perched on a nest of eggs.

Norell will discuss the area of Ukaa Tolgod in Mongolia, explaining why it has proved to be such a treasure-trove for oviraptor fossils. He will also talk about their most recent discovery in comparison to the original finds, and the evolutionary process as a whole.

A Nest of Dinosaurs: The Story of Oviraptors (Doubleday, October 1999), authored by Norell and Lowell Dingus, will be available for purchase and signing following the talk.

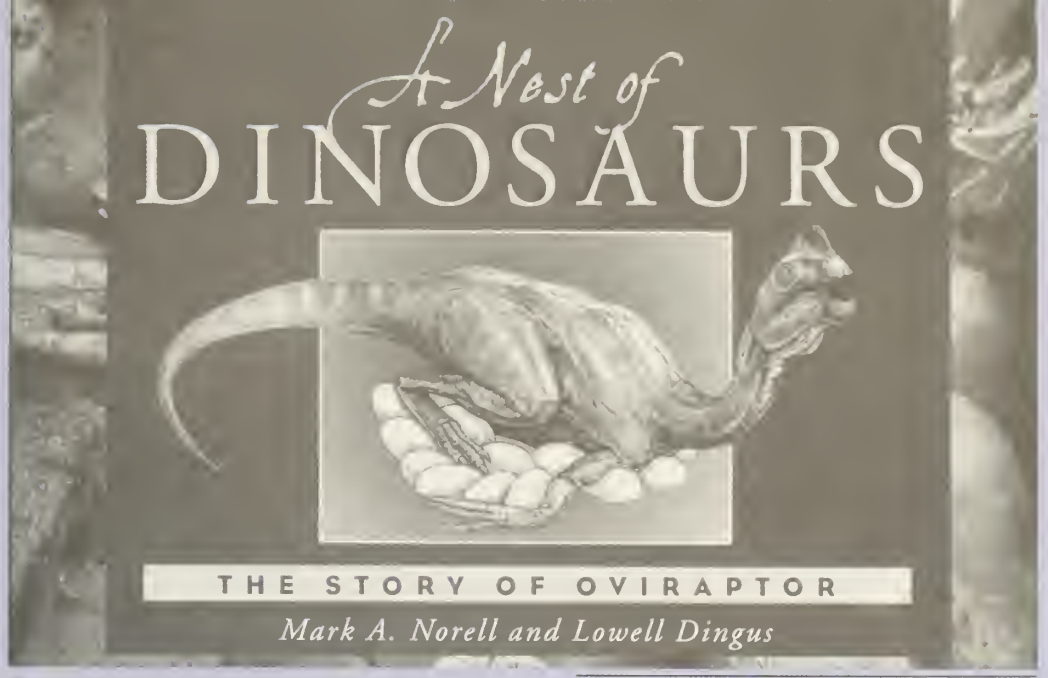
Location: Kaufmann Theater. Cost: Members: $10 adults; $5 children. Non-members: $12 adults; $6.50 children. Program Code: MM12-1.

Anticipations...Visions of a New Millennium

Guest Lecturers: Jules Verne and H. G. Wells (portrayed by Robert Campanile)

Friday, December 17, 6:30 p.m.

In 1863, Jules Verne wrote a novel that was considered too unbelievable to be published. It was lost for more than 100 years until his great grandson found it in a safe.



In 1899, standing on the cusp of the 20th Century, H. G. Wells also gazed into the future, reporting his projections in his book *Anticipations of the Reaction of Mechanical and Scientific Progress Upon Human Life and Thought.*

Robert Campanile will moderate the debate between the two great visionaries and even offer some humble speculations of his own.

Location: Kaufmann Theater. Cost: Members: $5. Non-members: $7. Program Code: MM12–6.

Workshop

Make Your Own Gingerbread House

Saturday, December 18, 10:00 a.m. & 2:00 p.m.; and Sunday, December 19, 10:00 a.m. & 2:00 p.m.

Come build a house of sweets for the holidays and create memories for years to come. Although your own house will be of your design, consultant June Myles will be on hand to help you create your no-bake gingerbread fantasy. Members often erect new—and improved—versions each year.

For children ages 5-10. Location: Room 319. Cost: $42 for one child and accompanying adult. Members only. Code: December 18 morning, MM12-2, afternoon, MM12-3; December 19, morning, MM12-4, afternoon, MM12-5.

Members' Expeditions

All expeditions, unless otherwise noted, include round-trip transportation (via charter bus from the Museum) lectures, and all admission fees. A detailed itinerary, along with specific instructions, will be sent to all registered participants approximately two weeks prior to the program date.

Hidden New York

Sunday, December 5, 9:00 a.m. to 5:00 p.m.

Join Sidney Horenstein, coordinator of the Museum's environmental programs, for a day exploring some of the more unusual places in New York City. In addition to learning how geology played a role in community development, we will see how local people and local government have reused and redeveloped the neighborhoods.

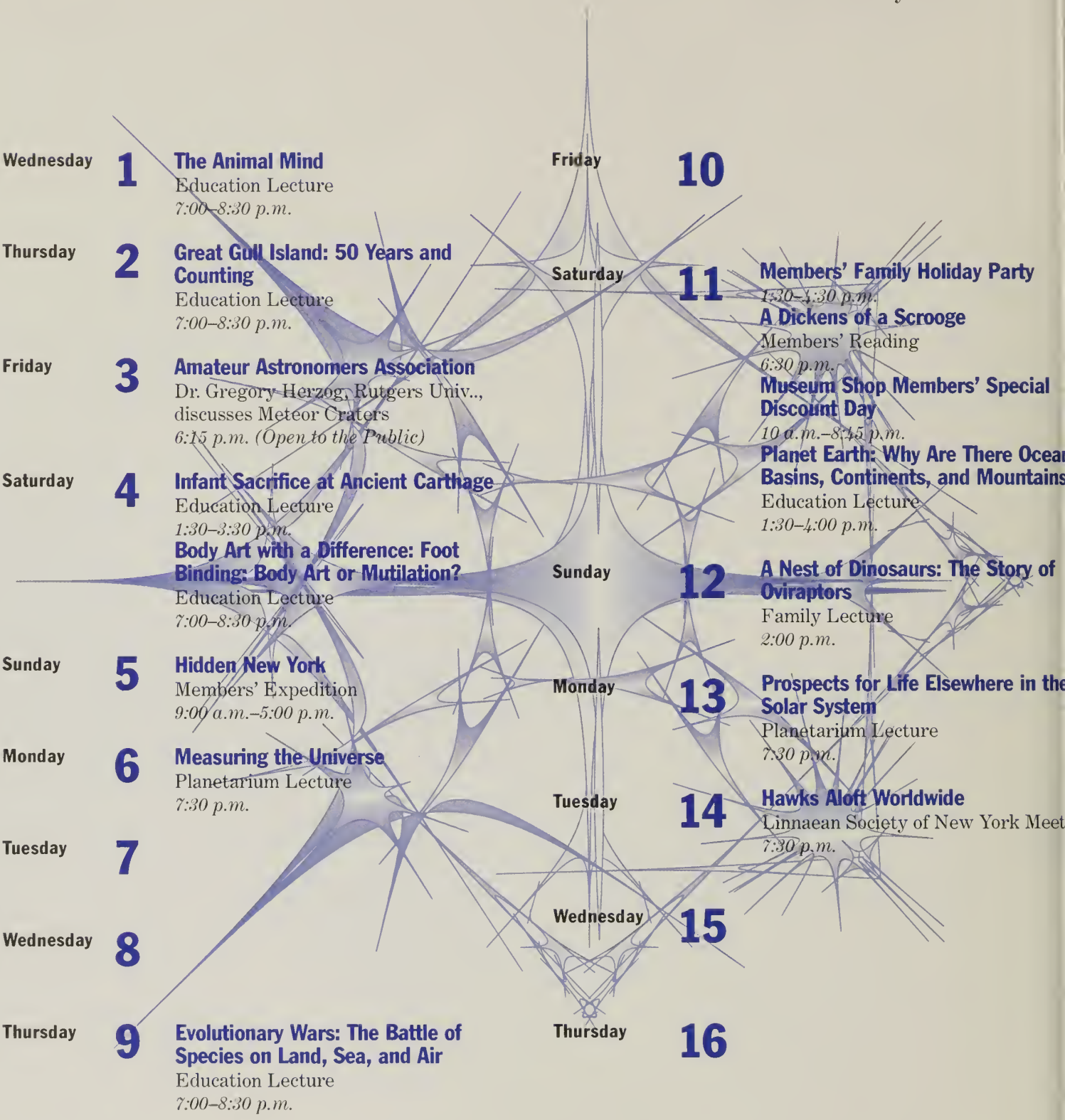
Explore a former summer beach colony that has been renovated and converted. The old structures unofficially have become permanent residences, necessitating the creation of their own volunteer fire department. Learn how the oldest bridge in New York, the Highbridge, built in 1842, was altered in 1923 and its arch stone used to make a major retaining wall along a Bronx avenue. As we travel through Manhattan, the Bronx, and Queens, we will see unusual views of the city from the lesser visited places.

Cost: $50 members; $60 non-members. Program Code: MM12-8.

december

Current Exhibits

The Butterfly Conservatory
October 9–February 27
Body Art Marks of Identity
November 20–May 29



Wednesday 1
The Animal Mind
Education Lecture
7:00–8:30 p.m.

Thursday 2
Great Gull Island: 50 Years and Counting
Education Lecture
7:00–8:30 p.m.

Friday 3
Amateur Astronomers Association
Dr. Gregory Herzog, Rutgers Univ.., discusses Meteor Craters
6:15 p.m. (Open to the Public)

Saturday 4
Infant Sacrifice at Ancient Carthage
Education Lecture
1:30–3:30 p.m.
Body Art with a Difference: Foot Binding: Body Art or Mutilation?
Education Lecture
7:00–8:30 p.m.

Sunday 5
Hidden New York
Members' Expedition
9:00 a.m.–5:00 p.m.

Monday 6
Measuring the Universe
Planetarium Lecture
7:30 p.m.

Tuesday 7

Wednesday 8

Thursday 9
Evolutionary Wars: The Battle of Species on Land, Sea, and Air
Education Lecture
7:00–8:30 p.m.

Friday 10

Saturday 11
Members' Family Holiday Party
1:30–4:30 p.m.
A Dickens of a Scrooge
Members' Reading
6:30 p.m.
Museum Shop Members' Special Discount Day
10 a.m.–8:45 p.m.
Planet Earth: Why Are There Ocean Basins, Continents, and Mountains
Education Lecture
1:30–4:00 p.m.

Sunday 12
A Nest of Dinosaurs: The Story of Oviraptors
Family Lecture
2:00 p.m.

Monday 13
Prospects for Life Elsewhere in the Solar System
Planetarium Lecture
7:30 p.m.

Tuesday 14
Hawks Aloft Worldwide
Linnaean Society of New York Meet
7:30 p.m.

Wednesday 15

Thursday 16

riday

aturday

unday

onday

iesday

ednesday

iursday

iday

17 **Anticipations...Visions of a New Millennium**
Lecture
6:30 p.m.

18 **Make Your Own Gingerbread House**
Members' Workshop
10:00 a.m. & 2:00 p.m.

19 **Make Your Own Gingerbread House**
Members' Workshop
10:00 a.m. & 2:00 p.m.

20

21

22

23

24

Saturday **25**

Sunday **26**

Monday **27**

Tuesday **28**

Wednesday **29**

Thursday **30**

Friday **31**

Phone Numbers at Your Fingertips

Museum Information . . . . . (212) 769-5100
Membership Office . . . . . (212) 769-5606
Planetarium Information . . (212) 769-5900
Members' Birthday Parties (212) 769-5154
Education Department . . . . (212) 769-5304
Planned Giving Office . . . . . (212) 769-5119
Discovery Tours . . . . . (212) 769-5700
*toll-free . . . . . (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
Website . . . . . http://www.amnh.org

For program reservations, please call (212) 769-5200

program listings

Department of Education Lectures

The Animal Mind

Wednesday, December 1, 7:00–8:30 p.m. Fee: $12 ($10 Members). Program Code: ED99230L.

James Gould, a noted ethnologist and professor of ecology and evolutionary biology at Princeton University, will discuss the animal mind, looking for signs of humanlike capacities in perception, thought, and language. Gould is the co-author, together with his wife, Carol Grant Gould, of the fully updated *The Animal Mind*. The book will be available at the lecture for purchase and signing.

Great Gull Island: 50 Years and Counting

Thursday, December 2, 7:00–8:30 p.m. Fee: $12 ($10 Members). Program Code: ED99231L.

In 1969, Helen Hays, a member of the Museum's Department of Ornithology, started the Great Gull Island Research Project. Today, the island is home to the largest common tern colony in the world and the largest colony of the endangered roseate tern in the Western Hemisphere. Helen Hays and project assistant Joseph DiCostanzo present the history of the island and the results of their team's tern research, including recent work on the bird's wintering areas in South America.

Infant Sacrifice at Ancient Carthage? The Texts Say "Yes," The Bones Say "No!"

Saturday, December 4, 1:30–3:00 p.m. Fee: $12 ($10 Members). Program Code: ED99232L.

In the late 1970s, as part of a worldwide effort to save ancient Carthage, an area of the city was excavated, yielding urns crammed with the cremated remains of animal and human infants. Archaeologists and epigraphists read the inscriptions on grave markers as telling of the practice of infant sacrifice, which Greek and Roman travelers had spoken of in graphic detail.

Jeffrey H. Schwartz, professor of physical anthropology at the University of Pittsburgh and research associate at the American Museum of Natural History, was in charge of the recovery of the bones from over 450 urns found during the excavations (and featured on the Discovery Channel), and has been analyzing this unique find for nearly 20 years. His work leads to a totally different conclusion: a large number of human remains were fetuses when cremated. In this fascinating lecture, Schwartz presents his new ideas on what may really have happened at ancient Carthage.

Body Art with a Difference: Foot Binding: Body Art or Mutilation?

Saturday, December 4, 7:00–8:30 p.m. Fee: $12 ($10 Members). Program Code: ED99236L.

Dorothy Ko, professor of Chinese history and women's studies at Rutgers University.

Evolutionary Wars: The Battle of Species on Land, Sea, and Air

Thursday, December 9, 7:00–8:30 p.m. Fee: $12 ($10 Members). Program Code: ED99233L.

In his new book *Evolutionary Wars*, Charles Kingsley Levy presents a guide to nature's most ingenious means of attack and defense. In this talk about the three-billion-year arm race in the Darwinian war of natural selection, Levy will discuss the early warning systems, stealth technologie and chemical agents that are central survival and success for individuals and groups. Charles K. Levy is professor of Biology at Boston University and research professor at Boston University Medical School. *Evolutionary Wars* will be available for purchase and signing.

Planet Earth: Why Are Ther Ocean Basins, Continents, and Mountains?

Saturday, December 11, 1:30–4:00 p.m. Fee: $12 ($10 Members). Program Code: ED99234L.

Bruce D. Marsh, Johns Hopkins University.

AMERICAN MUSEUM ö NATURAL HISTORY

VISIT OUR NEW MUSEUM SHOP · OPENING LATE NOVEMBER!

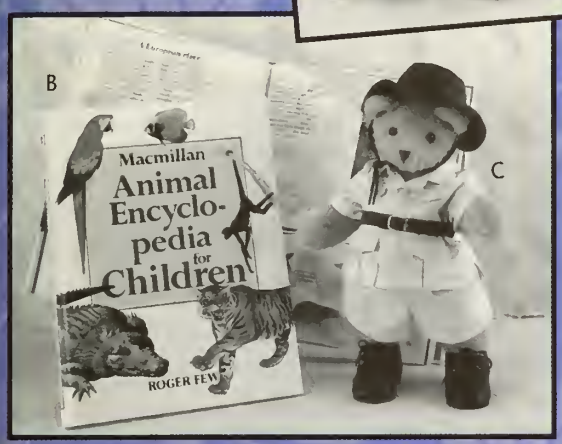
CHOOSE FROM THOUSANDS OF GIFTS INSPIRED BY THE MUSEUM S COLLECTION

AUTHENTIC REPRODUCTIONS, JEWELRY, PLUSH ANIMALS AND MORE...

A. A.M.N.H. Wildlife Collection: Kangeroo, chimpanzee, giraffe, rhinoceros, white tiger, African lion, black panther, African elephant, polar bear, leopard. $8.95ea

B. *Animal Encyclopedia for Children*: $19.95

C. Adventure Bear: Our exclusive Adventure Bear based on actual field photographs of such scientists as Roy Chapman Andrews. $25.00



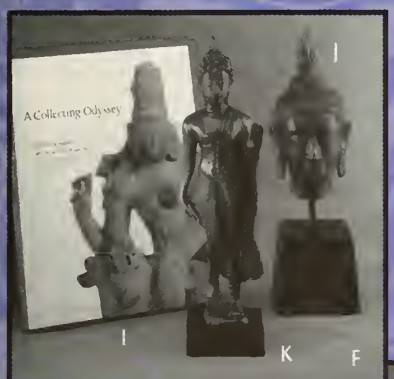
D. Mineral Inlaid Globes: Lapis set with jasper, quartz, adventurine, carnelian and more; with 24K gold-plated longitude and latitude lines. 3 1/2"D, $115.00

E. Mineral Pens: Ball-point pen, with 20K gold-plated trim. Lapis lazuli, azurite/malachite, blanco. Uses standard Cross refills. $49.00

F. Leather Journal: Gold-edged pages. $29.95

G. Desktop Ship's Chronometer: Uses one AA battery (not included). 4 3/4" x 5 1/4"H, $100.00

H. Globe Ties: Ties inspired by 1660, *Atlas Coelestis seu Harmonica Macrocosmica* by Andreas Cellarius, found in the Rare Book and Special Collections Library of the Museum. Navy or Stone. $28.00



I. *A Collecting Odyssey:* By Pratapaditya Pal with 752 illustrations. $70.00

J. 16th century Thai Buddha Head. Bonded bronze reproduction on black lacquer base. 4" X 4" X 1/2"H, $89.00

K. 14th Century Thai Walking Buddha. Bonded bronze on a black lacquer base. 3 1/2" X 3 1/2" X 14"H, $89.00

L. Calligraphy Silk Sachets: Silk sachets filled with potpourri. $18.00

M. Chinese Phoenix Jewelry: Hand-enameled and 24K gold-plated, featuring black onyx beads. Earrings $16.00, Cufflinks $18.00, Necklace $45.00

P. Crystal Pins: 24K gold-plated pin is hand enameled and set with Austrian crystal; based on 18th and 19th century illustrations in the Rare Book Collection of the Museum Library. Swallowtail butterfly, $58.00; Hummingbird, $44.00; Dragonfly, $38.00

Q. Butterfly Paperweights: Monarch, halacona, or glaucus. Up to $29.00ea

R. Butterfly specimens: Designed by Marshall Hill. Blue Morpho, 7" X 7" X 2 3/4" $49.00, leilus, 4" X 4" X 4"H, $25.00

S. Butterflies 2000 Calendar: With the drawings of Maria Sybilla Merian from her *Metamorphosis insectorium surinamensium (1705)* in the Rare Book Collection of the Museum Library. $11.95

N. Japanese Dragon Pin: 24K gold-plated, $16.00

O. Chinese "Good Luck" Frame: Holds 3" X 3" photograph. $19.00

T. Butterfly scarf: Hand-painted from illustrations by Edward Donovan, an 18th century English artist and naturalist; designed expressly for the Museum by ECHO. 100% silk, 36"- available in cream, navy and black (not shown) $58.00

U. Butterfly Address Book: 40 beautifully detailed prints from our Rare Book Collection of the Museum Library. $19.95

New main shop located at Central Park West at 79th Street • visit us at www.amnh.org

AMERICAN MUSEUM ö NATURAL HISTORY

New main shop Hours: Sun.-Thur. 10am-5:45pm, Fri. & Sat. 10am-8:45pm

Shop by phone (212) 769-5150 • shipping charges will apply

program listings

Hayden Planetarium Lectures

Measuring the Universe, Kitty Ferguson.
December 6, 7:30 p.m. Cost: $7 members; $8 non-members. Code: HP113L.

Measuring the Universe is an eloquent narrative about the men and women—from Aristarchus to Cassini, Sir Isaac Newton, Henrietta Leavitt, and Stephen Hawking—who have unlocked the mysteries of "how far" and in so doing have changed our ideas about the size and nature of the universe and our place in it. By explaining the science behind the inventions and discoveries of these innovators, Ferguson's lecture will reveal that their methods were as inventive as their results.

Prospects for Life Elsewhere in the Solar System, Chris Chyba.
December 13, 7:30 p.m. Cost: $7 members; $8 non-members. Code: HP103L.

The past decade has seen a rebirth in the study of exobiology. Solar system exploration is now focused on the search for life elsewhere and on a deeper understanding of the origins of life on Earth. We have learned that at least the inner planets of our solar system may not have been biologically isolated. As we have explored Earth's own subsurface biosphere, hopes for life on worlds such as the planet Mars have increased.

There are hints that underground oceans may be a standard component of the large icy satellites in the outer solar system. If so, Titan—the big moon of Saturn—is especially intriguing. The next ten years will see the beginning of intensive exploration of all these worlds. In this lecture, Chyba will explore this fascinating topic.

Hayden Planetarium Courses

Introduction to Astronomy

Eight weekly sessions

Thursdays, Jan 6, 13, 20, 27, Feb. 3, 10, 17, 24, 1999. Francine Jackson. 6:30–8:40 p.m. Fee: $95. Program Code: HP2.

This course introduces the universe to people with no background in astronomy, mathematics, or physics. It serves as a foundation for intermediate-level courses. Topics include Earth as a planet, the Moon, the solar system, stars, the Milky Way, galaxies, quasars, and black holes. Lectures explain planet motions, the rising and setting of the Sun and Moon, and other common phenomena.

Town and Country Star Gazing

Thursdays, Jan. 13, 20, 27. Steven Beyer. 6:30–8:10 p.m. Fee: $35. Program Code: HP10.

Locate and identify the brightest stars, whether you are observing from the center of a large city or under dark country skies. Interesting star clusters, nebulae, and galaxies found among the constellations are described and illustrated. Myths and legends of cultures relating to the sky are told. Use of binoculars, cameras, and telescopes to enhance your observing experiences will also be discussed.

Grand Tour of the Universe

Wed Jan. 5, 12, 19, 26, Feb. 2, 9. William Dorsey. 6:30–8:40. Fee: $70. Program Code: HP20.

This course is a grand tour from our solar system to the farthest reaches of the observable universe. Examined with the latest slide-illustrations and images are major insights and discoveries of the Hubble Space Telescope, Mars Pathfinder and Surveyor, Jupiter and Galileo, Saturn and Cassini explorations.

Life Beyond the Earth: The Search for Life in the Cosmos

Saturdays, Jan. 15, 22. Samuel Storch. 10 a.m.–4 p.m. Fee: $95. Program Code: HP22.

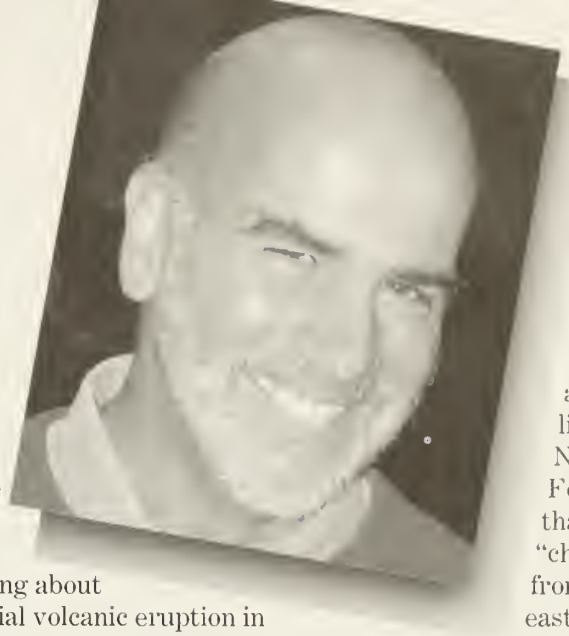
This course explains why a large number of scientists believe that life is possible elsewhere in the universe. Topics include stellar evolution, theories of planet formation and development, origin of life, intelligence, problems of communication, and current investigations.

Weather Analysis and Prediction

Six Mondays, *Jan. 10, 24, 31, Feb. 7, 14, 28. Barry Grossman. 6:30–8:40 p.m. Fee: $70. Program Code: HP28.*

In this hands-on course, participants learn how to analyze the different types of air masses, fronts, and circulations represented on TV and in newspaper 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 math is needed.

museum spotlight



Behind the Bulletins

Sitting in Smokey Forester's office, one might have trouble guessing what he does at the Museum. There are few clues: a small conference table, a phone and laptop computer, two chairs, one clock and a bookshelf, empty but for the eight or so bottles of salsa that line its shelves. That's it!

Is he the Museum's efficiency expert? Its Director of Simplicity? Or is he working with the Museum's Molecular Laboratory to engineer the tastiest and most delicious spicy condiment north of the Rio Grande?

Enough suspense. Smokey Forester is the director of the science bulletins project at the Museum. If you've visited the Museum during the past year or so and walked through the Hall of Biodiversity or the Gottesman Hall of Planet Earth, then you've seen his work. Both the BioBulletins and the Earth Event Wall and Earth Bulletins were produced by Forester. A documentary television and film producer by trade, Forester has been with the Museum since 1998.

Originally the brainchild of Museum President Ellen Futter, the science bulletins are designed to keep Museum halls current with the most recent scientific discoveries. This is done by utilizing the latest technological advances to highlight the Museum's science. The Hall of Biodiversity and the Hall of Planet Earth both use the science bulletin format to introduce visitors to material covered in the exhibits. But, more importantly, the bulletins present museum patrons with in-depth interactive information concerning exhibition material. Both breaking and feature stories are produced for these video walls. But that's just the beginning. After spending a few minutes at, for example, the Earth Event Wall, watching footage from the recent earthquake in Turkey or learning about a recent subglacial volcanic eruption in Iceland, you can step over to the EarthBulletin kiosk where a touch-sensitive computer screen allows you to interact with more information.

Forester and his staff of eight produce all of the material generated for the science bulletins and event walls. All of the visuals are generated by HDTV, the cutting edge in video technology. Each day Forester produces updates for the event walls, as well as longer feature pieces that highlight the work of Museum scientists.

Forester is clearly thrilled to be part of the Museum. Producing the science bulletins are his way of "adding value" to the Museum's already treasured collections. His latest project is the Astro Event Wall and AstroBulletin, coming soon with the opening of the new Dorothy and Lewis B. Cullman Hall of the Universe and Hayden Planetarium. The wall will feature stories about the Hubble Telescope and missions to Mars, and will provide an image of that night's sky updated daily.

Forester's distinguished career began over 30 years ago during his days as a student at Trinity College in Hartford, Connecticut. While in school, Forester took a part-time job at Connecticut Public Television. He stayed on for a few years after graduation, and eventually left for jobs with public television in New Jersey and later in Nebraska. For Nebraska Public Television, Forester produced and directed a 16 1/2 hour series on the history and culture of Japan. When asked what it was like living in Nebraska, Forester replies that it was a "change of pace" from his life on the east coast. It was, he adds with a smile, "conveniently located mid-way between both coasts."

Recently, Forester spent several months field producing a two-hour documentary about animal life in the Sahara for public television that will air early next year. He has also worked as a producer on the PBS documentary series "The American Revolution," and as both a producer and a director on several Bill Moyers projects. Forester's work has been recognized for excellence by his peers. He won an Emmy for his work on the PBS Special "In the Fiddler's House"—a look at klezmer music in Krakow, Poland—and won a prestigious Peabody Award for his work on "American Masters: Paul Simon."

Forester has traveled far and wide during his career, but there's no trace of restlessness in him. He's clearly at home in the Museum. He moves quickly through the Museum's hallowed halls, shaking hands or saying hello to nearly all Museum personnel he comes across. After sitting with Forester for a few hours, it's hard not to be impressed by his intensity and commitment to his work. It is the power of ideas and the accumulation and sharing of knowledge that drive him. With that, who needs extra office furniture, stacks of paper, and a stapler?

—Michael Yudell, AMNH

Visit the Museum's Science Bulletins at http://earthbulletin.amnh.org and http://biobulletin.amnh.org.

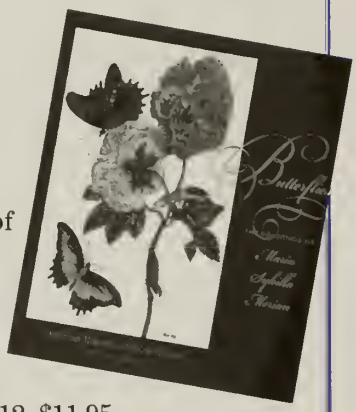
museum notes

Into the New Century with Museum Calendars

The Museum is celebrating the new century with three wall calendars, each capturing the beauty and spectacle of one aspect of our world. The calendars are available in the Museum shop.

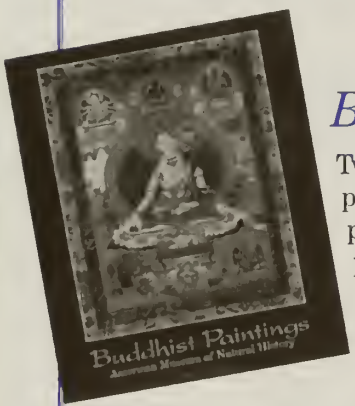
Planet 2000

To commemorate the new Hall of Planet Earth, each month in *Planet 2000* opens to a dramatic view of dynamic Earth and the forces that shape it. Go into the field with Museum photographers, who took many of the photographs while on expeditions for the Hall of Planet Earth. See the pulsing tides of the Mediterranean from on high and the intensity of flowing lava from a crater's edge. The brilliant colors and shapes of our home planet are brought into focus as month by month another natural phenomenon is revealed in stunning photographs that bring us an eye-opening view of our world. 12 x 12, $10.95.



Butterflies

In 1699, when she was 52 years old, Maria Sybilla Merian sailed to South America to study the insects of the New World. Butterflies presents a selection of beautifully detailed plates from her books on the insects of Surinam, her best-known works, in the Rare Book Collection of the Museum library. Merian's work joins meticulous illustration and acute observation to create exceptional naturalist art. 12 x 12, $11.95.



Buddhist Paintings

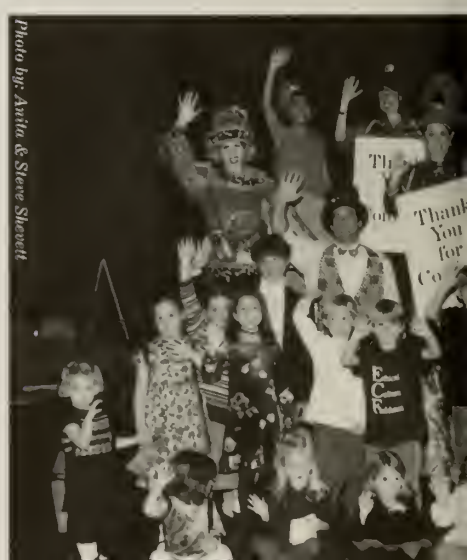
Twelve richly detailed *tangkas*, or religious scroll paintings, illustrate *Buddhist Paintings*. These paintings, tightly shaped by Tibetan Buddhist tradition, portray the complex iconography of this tradition and serve as spiritual aids as well as splendid works of art. 12 x 13, $12.95.

Sixth Annual Family Party: A Museum Benefit

On October 20, 1999, the Museum was filled with children and their parents as they participated in the Sixth Annual Family Party, a festival-style event that used the entire Museum as its backdrop. This exciting evening featured arts & crafts, science experiments, live reptiles and insects, stilt walkers and jugglers, a dinosaur photo op, and visits to the Butterfly Conservatory and Gobi Fossil dig. Guests were entertained by music from around the world—from banjos to steel drums. Parents and children enjoyed the many snack stations found throughout the Museum, as well as the supper buffet complete with Reggae band, located beneath the Blue Whale.

Pre-teen guests (4th–8th grades) partied in their own area, Middle School Madness, which included such highlights as Cosmic Twister, edible plants, microscopes and videoscopes, germ model-making, the IMAX film *Great Migrations*, and a DJ.

All in all, the evening was a huge success, raising more than $300,000 for the Museum's educational programs and providing a thrilling evening for all in attendance.



Members' Family Holiday Party

Saturday, December 11, 1:30–4:30 p.m. Program Code: MM12-9.

You're invited to our second annual event! Bring the family for a holiday adventure "under the sea" in the Museum's Hall of Ocean Life. Children of all ages can sing and party to their heart's delight to the music of David Grover and the Big Bear Band, the PBS award-winning family/folk trio. Join in singing the group's much-loved songs celebrating Chanukah and Christmas.

Enjoy a very special reading of Jeff Moss' *Bones Poems*, featuring the Museum's very own dinosaurs.

New fun activities and a special workshop with the Friends of Origami USA will add to a delightful afternoon. Children will have the opportunity to create a special holiday gift to take home.

The event is free and open to Family and Higher Level members only. (You must register through Central Reservations in order to attend.)

useum Shop Members' pecial Discount Day

n Saturday, December 11, from 10 n. to 8:45 p.m., the Museum shops ll offer an additional 10% off their rmal 10% members' discount, giving iseum members a perfect portunity to stock up on fun, scinating, and fanciful holiday gifts.

elebrate the Artistry and vention of Body Art

turday, December 4, and Sunday, December 5, 11 a.m. to 1 p.m. and 2 to 4 p.m., in room 319.

Demonstrations by Body Art professionals, children's art activities, and visits to the exhibition.

All Ages are welcome.

Give a Gift for All Seasons

A Membership in the American Museum of Natural History

Why not send a unique gift that lasts throughout the year? Your friends and relatives can enjoy all the privileges of membership, including complimentary Museum admission, a year's subscription to *Natural History* magazine and *Rotunda* (our members' newsletter), invitations to members' previews, and much more.

Choose either the Individual $45, Dual $60, or Family $75 category, and we'll do the rest. As a special holiday bonus, we'll send AMNH's beautiful 2000 engagement calendar (a $13.95 value, pictured right), along with a personalized holiday card to announce your thoughtful gift.

Please send a one-year membership at the category indicated to the person(s) listed below:

[ ] Individual [ ] Dual [ ] Family

Recipient's Name

Street Address

City State Zip

[ ] Individual [ ] Dual [ ] Family

Recipient's Name

Street Address

City State Zip

Enclosed is my check for $_____ Please charge to my _____Visa _____ MC _____ Amex

Card no. _____ Expiration date _____

Signature_____

Your Name

Street Address Telephone

City State Zip

I understand that this special offer, which expires December 31, 1999, is not valid for renewing my own membership.

Please mail this form, with your payment, to: AMNH, Membership Department, Central Park West @ 79th Street, New York, N.Y. 10024-5192

Museum Hours

Exhibition Halls

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

The Museum Library

Tues. - Fri.	11:00 a.m. - 4:00 p.m.

Museum Dining

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.

Natural Science Center

There are many wild places in the New York area, and the Center features these habitats' 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.

The Museum Shop

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

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.

Central Reservations Cou

Rotunda
AM. MUS. NAT. HIST. LIBRARY
Received on: 12-01-99

Program Name/Date # Members

_____

_____

_____

_____

Mr./Mrs./Miss/Ms.

Address

City State Zip

Telephone (Day) (Evening)

Membership No.

❑ Check ❑ Am.Ex. ❑ Visa ❑ Master Card

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 above 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.

Entrances

During Museum hours, visitors can enter the building through the 77th Street entrance, or the first- and second-floor Roosevelt Memorial Hall entrances (79th Street and Central Park West). The subway entrance is temporarily closed for construction. 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.

American Museum of Natural History

Membership Department
Central Park West at 79th Street
New York, New York 10024-5192
www.amnh.org

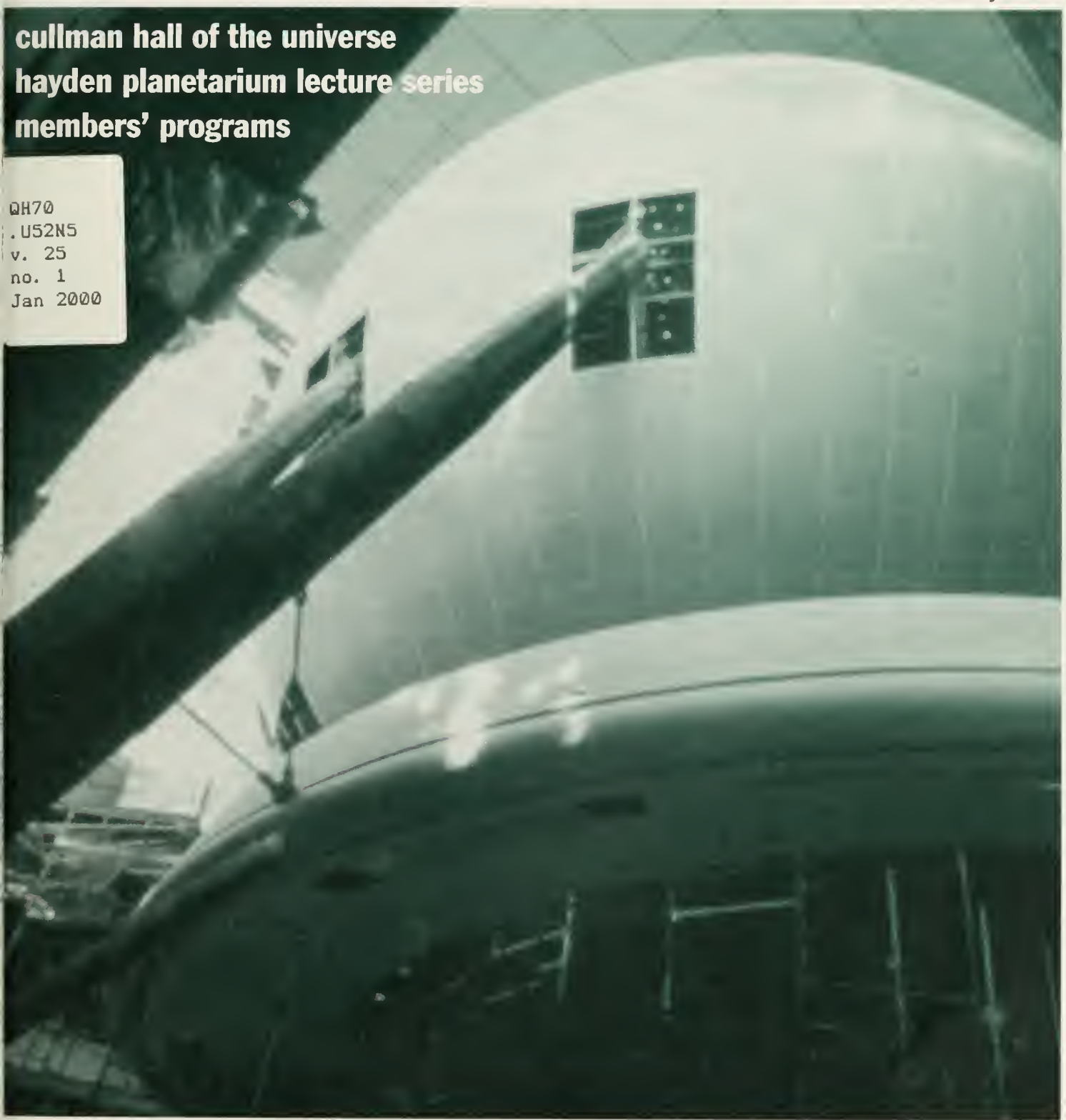
Please join us for the Members' Family Holiday Party, Saturday, December 11, 1:30–4:30 p.m.

rotunda

Vol. 25 No. 1 January 2000

cullman hall of the universe
hayden planetarium lecture series
members' programs

QH70
.U52N5
v. 25
no. 1
Jan 2000



AMERICAN MUSEUM OF NATURAL HISTORY

universal fascination

With the world—in the form of the Hayden Planetarium sphere—on its shoulders, the Dorothy and Lewis B. Cullman Hall of the Universe more than holds its own in the Frederick Phineas and Sandra Priest Rose Center for Earth and Space, set to open in February 2000.

Using hands-on interactive exhibits, kinetic sculptures, computer visualizations and dramatic projected images, the Hall will explore questions at the forefront of the fascinating world of modern astrophysics—everything from how the universe evolved to what cosmic events created the very atoms from which we are made. In short, the areas of inquiry that lie at the outer limits of the human imagination and at the core of our quest to understand our context in the cosmos.

To answer such questions, the Cullman Hall is divided into four zones, each illuminating the basic structural levels in the field of astronomy: universe, galaxies, stars, and planets.

The Universe Zone, featuring a thematic cluster on the most distant objects in the universe and a swirling kinetic sculpture of a black hole, takes the visitor to the outer limits of our powers of observation. The subject of black holes, and the extreme forces of gravity and the warping of space and time found near them, will be further explored in a video shown in an adjacent mini-theater.

Next is the Galaxies Zone, which has at its centerpiece a video sequence of two colliding galaxies, appearing to hang in space. This zone probes the forces, distortions, and transformations that occur when galaxies, in their massive swarms of stars and gasses, collide.

The Stars Zone follows, featuring the rare cosmic event of a star exploding in supernova. Images six feet across will convey the astounding beauty of the by-products of these explosions, bubbles and tendrils of gas, while at the same time the zone will consider the ways in which they have been observed throughout history.

Finally, the Planet Zone, featuring the the fifteen-and-one-half-ton Willamette Meteorite, focuses on planets and their place in the universe. In addition to allowing visitors to touch a piece of cosmic debris, the Willamette (mounted in the center of a zone dedicated to Impacts and Cratering) helps tell the ongoing story of asteroid and comet impacts on Earth, both those that have already taken place and those to come.

The most recent astronomy news, information, and scientific discoveries, plus a log of the current space missions, will be displayed on large, high definition screens in the electronic AstroBulletin. (As an added feature, the Astrobulletin will be available on computer stations throughout the Hall, as well a on the Museum's Web site, www.amnh.org.)

Another of the Hall's highlights is the Ecosphere, a glass-enclosed, self-sustaining habitat. Exploring both where life could exist in the universe and the ways in which it might manifest itself, the Ecosphere is a featured section of the Hall dedicated to the search for intelligent life in the universe.

With the inspired guidance and visior of Chief Curator Neil de Grasse Tyso Frederick P. Rose Director of of the Hayden Planetarium, and Co-Curato and Museum Astrophysicists Frank Summers and Steven Soter, the New Cullman Hall of the Universe has managed the nearly miraculous feat c fitting the entire universe into 7,000- square feet.

The Cullman Hall of the Universe is made possible by a major gift from Dorothy an Lewis B. Cullman, and a major grant fro the National Aeronautics and Space Administration (NASA).

Cover: Photo of the new Hayden Planetarium and the Dorothy and Lewis B. Cullman Hall of the Universe under construction. Above: Computer rendering of the Cullman Hall of the Universe. Right: Hubble Telescope First Servicing Mission, NASA. Back Cover: Rose Center under Construction.

ife, the universe, and everything

he Hayden Planetarium
ecture Series, in existence since the id-1980s, continues to attract an ıcreasing number of regular llowers. Over the years, the popular cture series has featured numerous siting research astronomers and has vered a variety of topics from stellar volution to supernovae, the Moon to eteor showers, the big bang and eyond to the search for xtraterrestrial life. With topics such s these, the series has become a rum for bringing advanced stronomical research to the general ublic.

wo years ago, with a growing number distinguished authors writing est-sellers on the subject of stronomy that did not fit directly into ıe research category, it became clear ıat the lecture series would have to e modified. As a result, it was split to two distinct series: Frontiers in strophysics and Distinguished Authors in Astronomy, both falling under the banner of the Hayden Planetarium Lecture Series.

In this way, the Frontiers in Astrophysics series could continue to be used as a forum to discuss current topics of astronomical research. Scientists from top U.S. academic institutions have shared their findings with their spellbound audiences at these regular monthly sessions. While the aim of the lectures, delivered at a level that can be understood by all, is to bring the cosmic world of astronomy to the general public, the lectures are sufficiently advanced to satisfy scientifically inclined minds, as well. In addition, as an added highlight, there is ample opportunity to question the lecturer at the end of his or her talk.

The Distinguished Authors in Astronomy series has featured numerous notable authors discussing their most current works. As an example of the series' popularity, a lecture given earlier in the year by Brian Green on the subject of The Elegant Universe: Superstrings, Hidden Dimensions and the Quest for the Ultimate Theory nearly filled the IMAX Auditorium, a theater that can accommodate nine hundred people. A recent lecture featuring Dava Sobel, author of the best-selling books *Galileo's Daughter* and *Longitude*, attracted a large crowd interested in Sobel's insights into her fascinating book about Galileo, as seen through a series of letters written by his daughter.

As an additional feature of the Distinguished Authors in Astronomy series, the audience is able to personally meet the author and purchase a signed copy of his or her book.

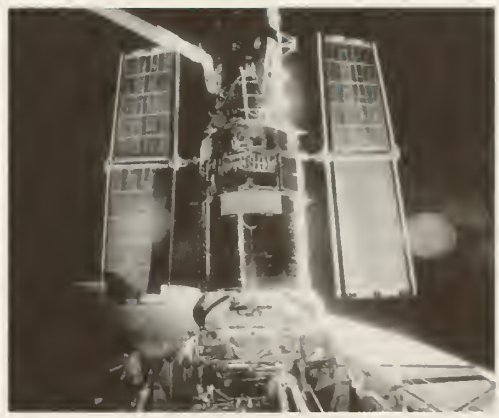
Occasionally, special programs are added to the lecture series to discuss the very latest advancements in astronomy. Earlier this year, a panel of experts including David Levy, Michael A'Hearn, Alan Stern, Brian Marsden, Jane Luu and the director of the Hayden Planetarium, Neil de Grasse Tyson, discussed the status of Pluto as a planet.

Louis Friedman, the Executive Director of the Planetary Society, presented The Search for Extraterrestrial Life and the Planetary Society's new program, called SETI@home, which was launched in May 1999, enabling home computer users everywhere the opportunity to participate directly in the search for extraterrestrial intelligence.

The lecture series is an ongoing program, with two lectures every month, one from the Distinguished Authors in Astronomy series and one from the Frontiers in Astrophysics series. The 1999/2000 Fall Series runs through January 2000 (See page 12), and the 2000 Spring Series runs February through May 2000.

—Anita Gajdecki, Dept. of Astrophysics

Lectures are usually held in the Kaufmann Theater, on Monday evenings, starting at 7:30 p.m. Tickets for either series can be purchased in advance by calling Central Reservations at 212-769-5200.



rotunda

ISSN 0194-6110

Vol. 25, No. 1, January 2000

John Davey, Editor
Rosemary Caulk, Director of Membership
Ellen V. Futter, President
Anne Sidamon-Eristoff, Chairman

Rotunda is published monthly, except for a combined issue in July/August, by the Membership Office of the American Museum of Natural History, Central Park West @ 79th Street, New York, N.Y. 10024-5192. Telephone: (212) 769-5606. Web address: www.amnh.org. Museum membership of $45 per year and up includes a subscription to *Rotunda*.

© 1999 American Museum of Natural History.
Periodical postage paid at Rutherford, N.J., and at additional mailing offices. Postmaster: Please send address changes to *Rotunda*, Membership Office, AMNH, at the above address. Printed in the USA.

events & exhibitions

Body Politic in Body Art

Panel: Sunday, January 9, 1:00–3:30 p.m., Kaufmann Theater, first floor.

What are culturally appropriate uses of "body art" today? Three panelists, who are creative artists, as well as social critics, will respond to this question and present their own views about the role of body politics in body art. The panelists are: Charlene Teters, a member of the Spokane Nation and founding board member of the National Coalition on Racism in Sports and Media; Vernon Reid, award-winning producer and a founding member of the African American music group "Living Color;" and Michelle Valladares, South Asian writer and former film producer for projects in the U.S. and Latin America. The panel will be moderated by Beverly Singer, Native American Coordinator at the AMNH.

Prior to the panel discussion, the award-winning film *In Whose Honor?* directed by Jay Rosenstein will be shown. The film documents the struggle of Charlene Teters, in 1988, to raise awareness about the negative traditions at the University of Illinois, where an "Indian Chief" serves as their mascot. The issue grew into a national movement led by Teters to eliminate negative portrayals of Native Americans.

This program is in conjunction with the Museum's exhibition "Body Art: Mark's of Identity."

Still from *In Who's Honor?*

Senses of Home: Dialogue Within Communities

Weekend Family Programs

1:00–5:00 p.m.

This month's programs highlight the boroughs of Brooklyn and the Bronx and explore the many ways different communities, individuals, and organizations negotiate the issues, such as displacement, economic distress, gentrification, and the environment, that concern them. January also features an exhibit by REPOhistory, a collaborative workgroup for creating public art/public history projects.

Saturday & Sunday, January 8 & 9

Communities of Brooklyn

Film: *The Dodgers Sym-phony*
Pegi Vail, Director / Producer, 1998, 28 min.

1:15 p.m.

This documentary tells the story of a legendary band that played for one of baseball's most mythic teams, the Brooklyn Dodgers. In 1939, broadcaster Red Barber dubbed the group the "Dodgers Sym-phony" because they weren't "real" musicians (thus, the "phony").

Saturday, January 8

Sunset Park, Brooklyn: From Finntown to Chinatown

2:00 & 3:30 p.m.

Tarry Hum, a Sunset Park native, explores the multi-ethnic density of this neighborhood. Once a Scandinavian enclave, Sunset Park has undergone a dramatic demographic transformation over the past two decades.

Saturday & Sunday, January 8 & 9

A Kuna Grows in Brooklyn
2:30 p.m. & 4:00 p.m.

Gloria Miguel, a founding member of NYC-based Spiderwoman Theater, weaves together monologues, stories, and songs of her childhood. She draws on her experiences growing up in an Italian neighborhood in Brooklyn, the daughter of a Kuna father from the San Blas Islands in Central America and a Native American mother.

Sunday, January 9

Twenty-Six Year as a Food Cooperative
2:00 p.m. & 3:30 p.m.

Allen Zimmerman, the coop's genera coordinator, speaks about the history of the Park Slope Food Coop, how it works, and how it functions as a community unto itself and as part of the larger community.

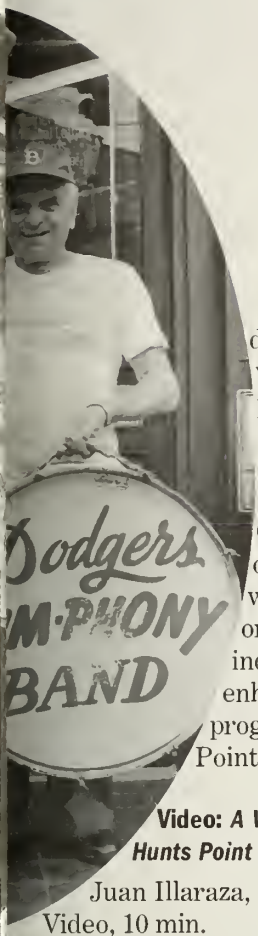
Saturday & Sunday, January 15 & 1

Communities of the Bronx
This weekend is produced in collaboration with The Point Community Development Corporation, an emerging communit based organization dedicated to the economic, cultural, and environment restoration of the Hunts Point sectio of the South Bronx.

Video: *On Point*
Pam Sporn, Producer / Filmmaker, 1999, 15 min.

1:00 p.m.

Bronx-based filmmaker Pam Sporn



documents various programs at The Point Community Development Center, focusing on relationships with other organizations and individuals that enhance the programs at the Point.

Video: *A Walk Through Hunts Point*

Juan Illaraza, Producer, 1999. Video, 10 min.

uan Illaraza, a filmmaker trained in he Point's Video Production rogram, explores the waste issues in Iunts Point and the beauty and otential of the Hunts Point peninsula.

heater and Poetry: South Bronx Style

:30 p.m. & 3:15 p.m.

he fledgling Hunts Point Street heater Troupe, a multi-generational roup under the direction of Brielle pstein and Marilyn Matias, will erform "Death of a Waterfront," a kit designed to educate residents bout environmental issues affecting iem.

ance and Music in Hunts Point

:15 p.m. & 4:00 p.m.

our Hunts Point youth groups howcase their professional training in ie arts: Afro-Caribbean drumming d by international percussionist ngel Rodriguez; Full Circle, a hip-op/break-dancing company; Typical heater, led by artistic director rthur Aviles; and youth ballet resented by world-touring ballerina epper.

Saturday & Sunday, January 22 & 23
Communities of New York City
Saturday, January 22

This video program is produced by Paper Tiger, a nonprofit volunteer collective that has been pioneering media criticism through video since 1981.

Video: *Subverting Media: A Guide to Low Tech Information Activism*
Paper Tiger Television

1:00 p.m.

The program explores the potential everyone has to create their own media, examines the process of creating the message, and encourages, through demonstration, further use of these communication methods. Paper Tiger Collective will conduct a workshop on how to create a zine.

Sunday, January 23

Video: *Breathless*
Paper Tiger Television

1:00 p.m.

In 1992, New York City announced its plan to build seven garbage incinerators as a way to solve the city's growing waste problem. This video examines the economic, social, and political aspects of this issue and makes a strong case for alternative plans for incineration.

Saturday & Sunday, January 22 & 23

The Struggle for Space: Preserving Community Gardens
2:00 p.m.

Members of Green Guerrillas discuss New York City's community gardens, most of which are located in neighborhoods with few safe, usable open spaces.

Mural Magic: Building Youth Leadership in Community Gardens

3:30 p.m.

Members of Green Guerillas will lead a discussion with muralists about the challenges and rewards of the Youth Mural Project, in which neighborhood leaders envision, design, and paint murals representing the distinct voices and visions of those involved.

AlieNation
2:30 p.m. & 4:00 p.m.

Tessa Martin, of the Immigrants' Theater Project, Inc., performs an original one-person show, brilliantly transforming herself into 15 different characters.

All programs are free with suggested Museum admission, and neither tickets nor reservations are required.

The American Museum of Natural History wishes to thank the May and Samuel Rudin Family Foundation, Inc., and The Leonhardt Foundation for their support of these programs.

members' programs

Lectures

Tropic of Cladistics: Everything You Thought You Knew About Evolution is Wrong

Tuesday, January 25, 7:00 p.m.

Questions about evolution imply a story in which one can reliably link causes with effects. However, if deep time—scales of time incomprehensible to the human mind, which is accustomed to thinking in terms of days and weeks, not millions of years—implies intervals so vast as to be incomprehensible, how can any story of evolution be told as if it were a narrative that is comprehensible in human terms? When we wake up to the fact that deep time is too unwieldy as a medium for human-centered stories of evolution, we suddenly find something very disturbing: evolutionary storytelling tells us more about our current prejudices than what really happened. The solution is cladistics—a way of looking at the world in terms of the pattern that evolution has created, rather than as the unknowable evolutionary process that created the pattern.

This lecture, presented by *Nature* senior editor Henry Gee, will use cladistics to see evolution in an entirely new light.

Gee is the author of *Before The Backbone: Views on the Origin of the Vertebrates* (Chapman and Hall, 1996) and *In Search of Deep Time: Beyond The Fossil Record to a New History of Life* (Free Press 1999/ Fourth Estate 2000).

Kaufmann Theater. Code: MM1-5. Cost: $10 members; $12 non-members. MM1-5.

The Sky is not the Limit: The Adventures of an Urban Astrophysicist

Tuesday, February 15, 7:00 pm

Enjoy a rare chance to hear the captivating story of a boy from the Bronx who overcame adversity to become one of America's most prominent astrophysicists.

Join AMNH's own Neil de Grasse Tyson for an hour of reflections on a distinguished life bringing the universe down to earth. His personal reminiscences will include an account of his first professional astronomy lecture at age 14, stories from his formative years at the Bronx High School of Science and at Harvard, amusing anecdotes from his many network television appearances, and a first-hand account of the making of AMNH's Rose Center for Earth and Space.

Neil de Grasse Tyson is the Frederick P. Rose Director of the Hayden Planetarium and author of two recent books. His Memoir: *The Sky is not the Limit*, upon which this evening's talk is based, and the handsome companion volume to the opening of the Rose Center, *One Universe, At Home in the Cosmos*, co-written with Charles Liu and Robert Irion, will be available for purchase and signing after the lecture.

Kaufmann Theater. Code: MM2-4. Cost: Free—members only.

Geology of the Planets

Wednesday, February 16, 7:00 p.m.

Join Sidney Horenstein as he takes us

Neil de Grasse Tyson

out into the solar system to study the make-up of the planets. It has been three decades since we first explored the moon and subsequently some of the rest of the solar system. During this same period, revolutionary ideas about how the Earth works, called plate tectonics, have taken hold. Combining the two fields of study ha lead to a greater understanding of th solar system, which in turn has had a impact on the way we view the Earth As the flood of new data continues, o ideas on the origin of the planets, the make-up of their atmospheres and their internal structures continue to evolve, as well. This slide illustrated lecture brings you up-to-date on thes ideas and the latest figures on the remarkable expanding inventory of planetary bodies, moons, centaurs, a the uncountable meteoroids and comets that are part of our solar system.

Kaufmann Theater. Code: MM2-5. Cost: $10 members; $12 non-member

Parent/Child Workshop

Creating Valentines

Saturday, February 5 and Sunday, February 6, 10:30 a.m. and 2:00 p.m.

In an age of e-valentines, a paper one can have a special value—especially one you make yourself. With scissors

aper, and imagination, you can make one-of-a-kind valentine greeting for our friends and family. During the orkshop, June Myles will show you me amazingly simple techniques for aking cards that pop-up, fold, move, id some that are just plain puzzling. 'e'll supply the papers, plain and ncy, and you supply the imagination create wonderful valentine epsakes.

ll children must be assisted by an lult.

oom 319. Code: MM2-1 (Sat.) and M2-2 (Sun.). Cost: $24 per lult/child pair; members-only.

amily Lecture

he Animals of Puerto Rico

inday, February 6, 2:00 p.m.

enowned Cuban biologist and notographer Alfonso Silva Lee will esent a slide-illustrated talk about e fascinating fauna of the beautiful opical island of Puerto Rico. scover 37 species of indigenous land imals, including the Mona rock uana, the blind snake, giant llipedes, the tailless whip scorpion d the coqui. Travel from the forests the sea to learn about marine eatures such as octopus and French gelfish.

The author of ten books on natural history topics of the tropic regions, Silva Lee has served as a biologist with the Cuban National Museum of Natural History, Academy of Sciences and Institute of Oceanology. His latest book, *Coqui and His Friends*, is written especially for children ages 8 to 12 and will be the focus of his talk.

Kaufmann Theater. Code: MM2-3. Cost: $10 adult, $5 child for members $12 adult; $6 child for non-members.

Previously Listed

Members' Parent-Child Workshop

Building Space Ships

Saturday, January 15 and Sunday, January 16, 10:30 a.m.–12:00 p.m. or 1:30–3:00 p.m.

Begin planning your journey to the final frontier by joining June Myles to create your own unique model spacecraft. A wealth of recyclable materials will be supplied to inspire the inventor/designer in all participants. This adult-child workshop is suitable for children ages 7 and up.

Cost: $38 per couple (adult & child) –Members only. Code:MM1-3 and MM1-4.

Workshop

Geology Models

Wednesday, January 19, 6:30–8:30 p.m.

Learn many of the principles of geology in this special two-hour workshop with Sidney Horenstein, geologist and coordinator of the Museum's Environmental Programs. Use paper, clay, and other materials supplied to create your own models. Room 319. Cost: $32 members; $37 Non-Members. Code:MM1-2.

january

Current Exhibits

The Butterfly Conservatory
October 9–February 27
Body Art Marks of Identity
November 20–May 29
The New York Times Capsule
December 4–March 26

Saturday 1

Sunday 2

Monday 3
Creation of the Universe: An Astrophysicist's Perspective
Lecture
7:30 p.m.

Tuesday 4

Wednesday 5

Thursday 6

Friday 7

Saturday 8
Senses of Home: Dialogue Within Communities Series
1–5 p.m.

Sunday 9
Body Politic in Art
Film/Panel Discussion
1:00–3:30 p.m.
Senses of Home: Dialogue Within Communities Series
1–5 p.m.

Monday 10

Tuesday 11

Wednesday 12
Art of the Diorama
Museum Tour
6:30 p.m.

Thursday 13

Friday 14

Saturday 15
Building Space Ships
Parent/Child Workshop
10:30 a.m.–12:00 p.m. & 1:30–3:00
Senses of Home: Dialogue Withi Communities Series
1–5 p.m.

Sunday 16
Building Space Ships
Parent/Child Workshop
10:30 a.m.–12:00 p.m. & 1:30–3:00
Senses of Home: Dialogue Withi Communities Series
1–5 p.m.

Monday 17
Martin Luter King Day

Tuesday 18

Wednesday 19
Geology Models
Workshop
6:30–8:30 p.m.

Thursday **20**

Friday **21**

Saturday **22** **Senses of Home: Dialogue Within Communities Series**
1–5 p.m.

Sunday **23** **Senses of Home: Dialogue Within Communities Series**
1–5 p.m.

Monday **24** **Astronomy with the Next Generation Telescope**
Lecture
7:30 p.m.

Tuesday **25** **Tropic of Cladistics**
Lecture
7:00 p.m.

Wednesday **26**

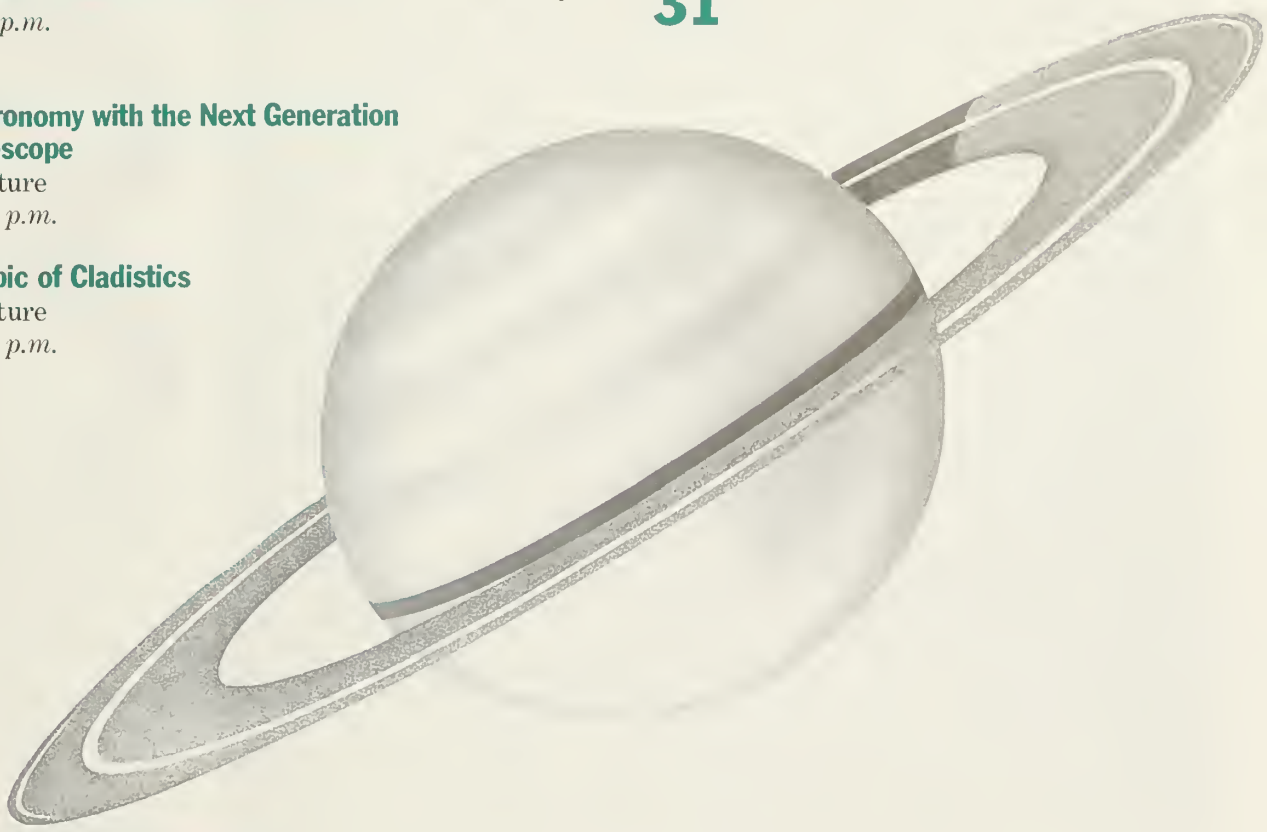
Thursday **27**

Friday **28**

Saturday **29** **Discovery Room**
12–4:30 p.m.

Sunday **30** **Discovery Room**
12–4:30 p.m.
Museum Magic: "Lure of the Deep"

Monday **31**



Phone Numbers at Your Fingertips

Museum Information	(212) 769-5100
Membership Office	(212) 769-5606
Planetarium Information	(212) 769-5900
Members' Birthday Parties	(212) 769-5154
Education Department	(212) 769-5304
Planned Giving Office	(212) 769-5119
Discovery Tours	(212) 769-5700
*toll-free	(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
Website	http://www.amnh.org

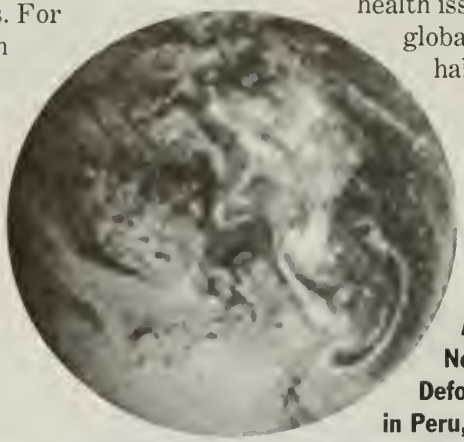
For program reservations, please call (212) 769-5200

program listings

Planet Earth

Three Saturdays, once each month in January, February, and March, 1:30–4:00 p.m. Fee: $12 each ($10 members, students, senior citizens).

In this series, geologists and climate specialists examine some of the big questions posed in the new Gottesman Hall of Planet Earth. Each monthly talks will address a different question. Programs last two and a half hours and include a short break and light snack for participants. For additional information and program details, call 212-769-5176. Program Code: ED99234L.



February 5
What Causes Climate and Climate Change?

Charles F. Keller Jr., Los Alamos National Laboratory

March 11 Why Is the Earth Habitable?

Edmond A. Mathez, Department of Earth and Planetary Sciences, American Museum of Natural History

Body Art and Youth Cultures

Saturday, February 26, 7:00–8:30 p.m.

Fee: $12 ($10 members, students, senior citizens) Daniel Wojcik, associate professor of English and folklore studies, University of Oregon. Program Code: ED99236L.

Climate Change and Public Health

Tuesdays, February 1 and 8 7:00–8:30 p.m.

Fee: $20 ($18 members, students, senior citizens); $12 each ($10 members, students, senior citizens). Program Code: ED20202L.

In this two-part series, Jonathan A. Patz, assistant professor and director of the program on the health effects of global environmental change, Department of Environmental Health Sciences of the Johns Hopkins School of Public Health, and Gregory Gurri-Glass, associate professor in the Department of Molecular Microbiology and Immunology and the program's director, examine some of the public health issues surrounding global climate change and habitat destruction.

Feb. 1 Global Warming, El Niño, and Human Health: How Large Are the Risks?

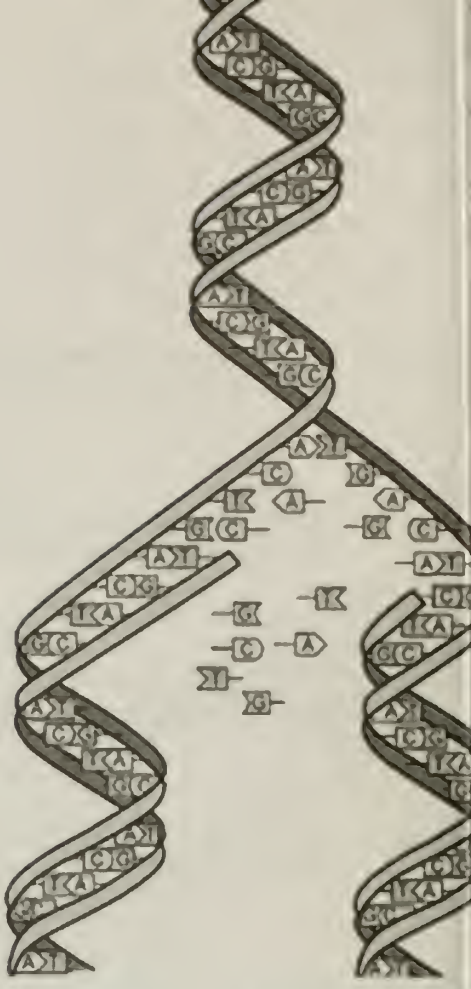
Feb. 8 Land Use and Abuse Affecting Health: New Findings on Deforestation and malaria in Peru, and how local US agricultural practices may be affecting seafood and water safety.

The Great Auk

Tuesday, February 8, 7:00–8:30 p.m.

Fee: $12 ($10 members, students, senior citizens). Program Code: ED20203L.

The great auk was last spotted in 1844. In this illustrated lecture based on his new book, painter and writer Errol Fuller explores the hold that this extinct, flightless bird exerts over our imaginations. Fuller will discuss the great auk's natural history, its appearances in art and literature, and the story of the bird's tragic disappearance. The book *The Great Auk* will be available for purchase and signing.



GENOME: The Autobiography of a Species in 23 Chapters

Tuesday, February 15, 7:00–8:30 p.m.

Fee: $12 ($10 members, students, senior citizens). Program Code: ED20204L.

In February 2000, the Human Genome Project will unveil unprecedented findings that will have an enormous impact on biology, technology, and medicine. This international, fifteen-year, $200 billion-a-year project encompasses the scientific effort to trace, map, and sequence the twenty-three pairs of chromosomes in our bodies. The first draft will be one billion three-letter words that use the four-letter alphabet code of DNA—nothing less than an autobiography of our species. According to Matt Ridley who will discuss the project, being able to read the genome will tell us more about our origins, our evolution, our nature, and our minds than all the efforts of science to date. Matt Ridley is a science writer whose most recent book, *GENOME: The Autobiography of a Species in 23 Chapters*, will be available for purchase and signing.

Faster

Thursday, February 17, 7:00–8:30 p.m.

Fee: $12 ($10 members, students, senior citizens). Program Code: CD20205L.

One metaphor for our modern, technocratic age is acceleration. In his lecture, James Gleick, author of the award-winning book *Chaos: Making a New Science*, examines the phenomenon that characterizes the end of the twentieth century, tracing our history and obsession with time. We fill our lives with time-saving devices and strategies. Entertainment media, which uses the quick-cut editing style of MTV videos, telephone redial buttons, the concept of multitasking, and dozens of other offshoots of our fascination with compressing time are part of the discussion.

Gleick's most recent book, *Faster: The Acceleration of Just About Everything*, will be available for purchase and signing.

Mother Nature

Thursday, February 24, 7:00–8:30 p.m.

Fee: $12 ($10 members, students, senior citizens). Program Code: CD20206L.

In her new book, *Mother Nature: A History of Mothers*, Infants, and Natural Selection, Sarah B. Hrdy examines the motivations behind some of our most primal and hotly contested behavioral patterns. Using this work as a basis, Hrdy discusses gender roles, mate choice, sex, reproduction, and parenting, as well as touching on the ideas and institutions that have grown up around them.

The book will be available for purchase and signing.

Tigers in the Snow

PETER MATTHIESSEN

MEMBER EVENT

Tigers in the Snow

Tuesday, February 22, 7:00 p.m.

No more than a few thousand tigers survive in pockets of Asia, a continent where they once roamed far and wide. The largest of them, the Siberian tiger, is today almost entirely confined to the Russian Far East, in the Sikhote-Alin Mountains, a region that may offer the species' best hope for survival. But the implosion of the former Soviet Union has intensified poaching and habitat depredation, prompting a group of Russian researchers and U. S. wildlife biologists, led by Maurice Hornocker, one of the world's foremost authorities on the great cats, to join forces to stave off extinction by founding the Siberian Tiger Project.

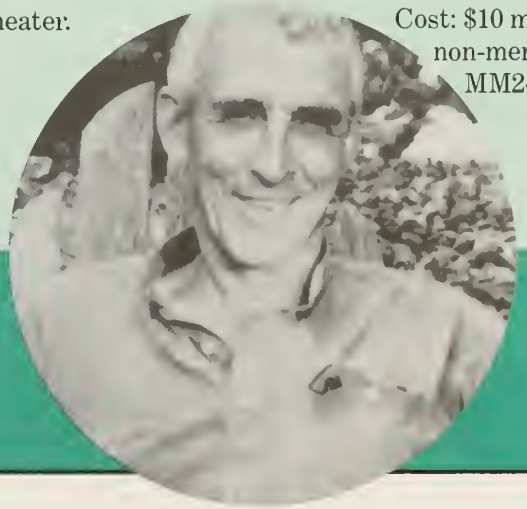
Peter Matthiessen, well-known author of *The Snow Leopard* and numerous other works of fiction and nonfiction on natural history topics, accompanied researchers into the field. In his new book, *Tigers in the Snow*, Matthiessen recounts these fascinating expeditions and allows us to vicariously participate in the battle for the future of one of the world's most awesome creatures.

Matthiessen will tell us the dramatic story of the tiger's dilemma—underscored by Maurice Hornocker's spectacular one-of-a-kind photographs—which powerfully convey what a loss to our collective imagination the disappearance of these great cats would be.

The newly released *Tigers in the Snow* will be available for purchase and signing following the program.

Kaufmann Theater.

Cost: $10 members; $12 non-members. Code: MM2-6.



program listings

Distinguished Authors in Astronomy

Creation of the Universe: An Astrophysicist's Perspective

Joe Silk, January 3, 7:30pm, Kaufmann Theater

Cosmology is the study of the universe: its structure, its beginning, its fate. This lecture will describe how the big bang theory addresses such concrete issues as the vast size of the universe and its evolution on a grand scale, from the genesis of matter to the birth of entire galaxies of stars. The most youthful galaxies are far away, and their light has travelled through space for tens of billions of years. Space is a time machine that gives us, via very large telescopes, a view of the past. Simulations of galaxy formation on supercomputers provide a means of comparing theory with observation. The formation of the observed large-scale structure in the universe requires primeval density fluctuations to have been present. The recent discovery of fluctuations in the cosmic microwave background is a vital link in relating the infinitesimal inhomogeneities present at the beginning of time to the observed structures in the Universe.

Frontiers in Astrophysics

Astronomy with the Next Generation Space Telescope

Steven Beckwith, January 24, 7:30pm, Kaufmann Theater

When Galileo turned the first telescope to the heavens in the 17th century, he quickly discovered that Earth was not at the center of the solar system but only one of several planets orbiting the Sun, overturning centuries of doctrine to the contrary. As telescopes became more powerful, they revealed an enormous universe populated by stars, nebulae, galaxies, quasars, and exotic objects unimaginable before their discovery. Our most powerful instrument, the Hubble Space Telescope, has now seen back to the time when the universe was less than 20 percent of its age, and it continues to produce remarkable images of the heavens that captivate our imaginations. The next generation space telescope will be extend our vision beyond the Hubble Space Telescope by as much as Galileo's telescope extended the human eye. Its ultimate goal is to see the "edge of light," reaching back in time to when there were no stars and galaxies. In the process of searching for the "edge," it is likely to discover even more of the secrets of the universe that have previously been hidden.

Hayden Planetarium Courses

Choosing and Using a Telescope

Mondays, Feb. 28, March 6, 13, 20, 27, April 3, 10, 17, 6:30–8:40 p.m.

Fee $95. Program Code: HP8.

An introduction to choosing and using telescopes for amateur astronomy, this course covers the basic optics of telescopes, equatorial and alt-azimuth 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 needed.

Stars in My Eyes

Sundays, Feb. 27, March 5, 12, 19, 2–4:00 p.m.

Fee $60. Program Code: HP17.

This course for children ages 8 and 9 will introduce the young science enthusiast to the basic concepts of astronomy including planets, constellations, the Moon, and comets. Each class will include hands-on activities and a project to take home.

Seminar in Cosmology

Wednesdays, Feb. 16, 23, March 1, 8, 15, 22, 29, April 5, 6:30–8:40 p.m.

Fee: $95. Program Code: HP21.

Cosmology is the study of the large-scale structure and evolution of the universe. This seminar examines the principles, methods, and subject matter of modern cosmology as a philosophically based science that seeks answers to such questions as: Did the big bang really happen? What is space-time? What is relativity? How relative is relativity? Discussions are encouraged during each session.

From Copernicus to Einstein

Thursdays, Feb. 3, 10, 17, 24, March 2, 9, 16, 23, 6:30–8:40 p.m.

Fee: $95. Program Code: HP23.

his course is a survey of four of the
eat ideas that have brought about
volutionary change in astronomy
d physics. Sessions explore
pernicus's astronomy, Galileo's
ysics and astronomy, Newton's
ysics, and Einstein's relativity of
ne and space, examining historical
d schematic presentations of each
eory for an understanding of how
ese profound ideas have affected our
rsuit of reality.

thnoastronomy: An nthropological View of the ky

x Tuesdays, Feb. 15, 22, 29, March 7,
, 21, 6:30–8:00 p.m.

ee: $70. Program Code: HP25.

scover the role of astronomy in
fferent cultures. This course
amines the various symbolic aspects
the heavens. The cosmologies of
fferent cultures and the symbolism
sociated with them will be
scussed.

epartment of Education

ainted Love

t. & Sun., February 12 & 13, 11
n.–1 p.m. and 2–4 p.m. Room 319,
ar the Hall of Reptiles.

**dy Art is used to look beautiful. It is
o used to attract a possible mate.**

in us Valentine's Day weekend
d explore the world of adornment
a free workshop: Body Art:
actices and Stories.

arn more about contemporary
dy art practices as our artists
orate you with either a
nporary tattoo, painted design, or
ditional henna.

Explore the world with the American Museum of Natural History Discovery Tours

Discovery Tours at the American Museum of Natural History offers 60 educational trips a year to destinations around the globe. Since 1953, over 16,000 Museum travelers have participate in Discovery Tours. Now you too, can explore the world's greatest wildlife areas, archaeological sites, and cultural centers with Museum scientists and expert lecturers. Discovery Tours also offers unique family trips for explorers of all ages.

Discovery Tours

Central Park West at 79th St.,
New York, NY 10024
(800) 462-8687 or (212) 769-5700
Call for a free catalogue of all our tours

AMERICAN MUSEUM ō NATURAL HISTORY

A Hindu bride's Henna-covered hands.

Photo by Pravina Shukla, AMNH

museum notes

Time Passages

The exhibition "Capturing Time: The New York Times Capsule," a new exhibition at the Museum that explores concepts of time and the history of time capsules, features the actual Times Capsule (pictured below), a 5' x 5' x 5' sculpture of welded stainless steel designed by Santiago Calatrava, renowned architect-engineer from Valencia, Spain. Calatrava has described the capsule as a flower, and others have mentioned its resemblance to a three-dimensional mandala, a symbol of universal wholeness.

The capsule is made of polished stainless steel and is designed to be divided horizontally, forming two halves, and then into quarters, each of which is hollow. The resulting eight sections can hold up to 50 cubic feet of materials, which will be sealed in insulation used by the space industry.

The exhibition will be on view through March 26, 2000, after which the Times Capsule will be given a permanent home at the Museum.

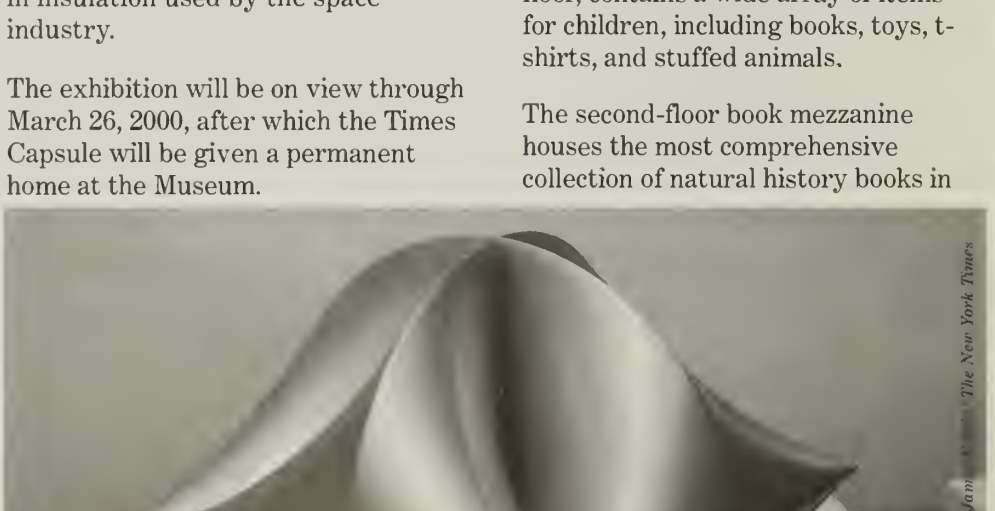
The Evolution of Shopping

Featuring a 34-foot-high rock wall from an actual cast made at a site in eastern Washington state, a striking glass stair railing shaped like a stegosaur's backbone, and six fossil casts of pterosaurs soaring overhead, the Museum's spectacular new main shop is now open on the first floor, just off the Theodore Roosevelt Memorial Hall, and on the second floor, just off the Theodore Roosevelt Rotunda..

The first level, on the Museum's first floor, contains a wide array of items for children, including books, toys, t-shirts, and stuffed animals.

The second-floor book mezzanine houses the most comprehensive collection of natural history books in Ne York City, along with large selection of videotapes and CD-ROMs.

The second level features a broad selection of merchandise with themes related to human cultures, the natural world, and the universe. Some of the highlights include a wide assortment o ethnic crafts from around the world—Africa and Mexico, in particular—and reproductions of objects in the Museum's collections. Included among this latter group are a line of scarves, ties, glassware, and jewelry based on the Museum's Rare Book Collection th are either exclusive to the Museum or produced under license for limited distribution; an outstanding selection o objects tied to the Museum's mineral and fossil collections; a line of "adventure wear" clothing for travelers an extended line of jewelry based on Museum pieces; and CDs of both the sounds of the natural world and music spanning the globe.



Spring is coming early this year!

Celebrate the opening of our new main Museum shop with the colorful splendo of spring botanicals (pictured above). Inspired by the art of 17th and 18th-century naturalists from our rare book collection, these drawings are offered t you on handcrafted European crystal from 5th Avenue Crystal ($16-$38), 100% silk scarves designed by Echo Design Group ($54), and crystal jewelr from Margot Townsend ($38-$44).

The American Museum of Natural History
is pleased to invite you to attend a
Members' Preview
of the spectacular new
Frederick Phineas and Sandra Priest Rose Center for Earth and Space
on February 12, 13, 14, 15, 17 and 18, 2000

Family and Higher Level members may reserve four complimentary tickets.
Individual and Dual members may reserve two complimentary tickets.

Due to the limited capacity of the Rose Center's Space Theater in the Hayden Planetarium, you must have advance reservations to attend the preview in order to insure seating in the Space Show.

Your tickets for the Members' Preview will be mailed to you by February 4.

RESERVATION FORM

Please choose the dates and times you prefer to attend, complete this form and mail it to the Membership Office, Members' Preview, American Museum of Natural History, CPW at 79th Street, New York, NY 10024. **No telephone reservations can be accepted.**

Reservations are available for the Hayden Planetarium's Space Shows on:
February 12 and 13 between the hours of 10:00 a.m. and 5:30 p.m.*
February 14, 15, 17 and 18 between the hours of 12:00 and 5:30 p.m.*

*Shows are ticketed for each half hour.

PLEASE PRINT

	DATE	TIME	#TICKETS
1st Choice			
2nd Choice			
3rd Choice			

Please check the mailing label on the reverse side of this form to make sure that we have your correct address.
Your name _____ Daytime telephone_____

For information only about the Members' Preview of the Rose Center, please call the Membership Office at (212) 769-5606 during business hours.

Museum Hours

Exhibition Halls

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

The Museum Library

Tues. - Fri.	11:00 a.m. - 4:00 p.m.

Museum Dining

Cafe on 4

Sun. - Thurs.	11:00 a.m. - 4:45 p.m.
Fri. - Sat.	11:00 a.m. - 7:45 p.m.

Ocean Life Cafe

Sun. - Thurs.	11:00 a.m. - 4:45 p.m.
Fri. - Sat.	11:00 a.m. - 7:45 p.m.

77th Street Snack Bar

Sun. - Thurs.	11:00 a.m. - 4:30 p.m.
Fri. - Sat.	11:00 a.m. - 4:30 p.m.

Natural Science Center

There are many wild places in the New York area, and the Center features these habitats' 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.

The Museum Shop

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

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.

Central Reservations Coup

Program Name/Date # Members

_____

_____

_____

Total $ _____

Mr./Mrs./Miss/Ms. _____

Address _____

City _____ State _____ Zip _____

Telephone (Day) _____ (Evening) _____

Membership No. _____

❑ Check ❑ Am.Ex. ❑ Visa ❑ Master Card

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 above 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.

Rotunda
AM. MUS. NAT. HIST. LIBRARY
Received on: 03-15-2000

Entrances

During Museum hours, visitors can enter the building through the 77th Street entrance, or the first- and second-floor Roosevelt Memorial Hall entrances (79th Street and Central Park West). The subway entrance is temporarily closed for construction. 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.

AMERICAN MUSEUM of NATURAL HISTORY

Membership Department
Central Park West at 79th Street
New York, New York 10024-5192
www.amnh.org

Members' Previews—Rose Center for Earth and Space, February 12–15 and 17, 18, 2000

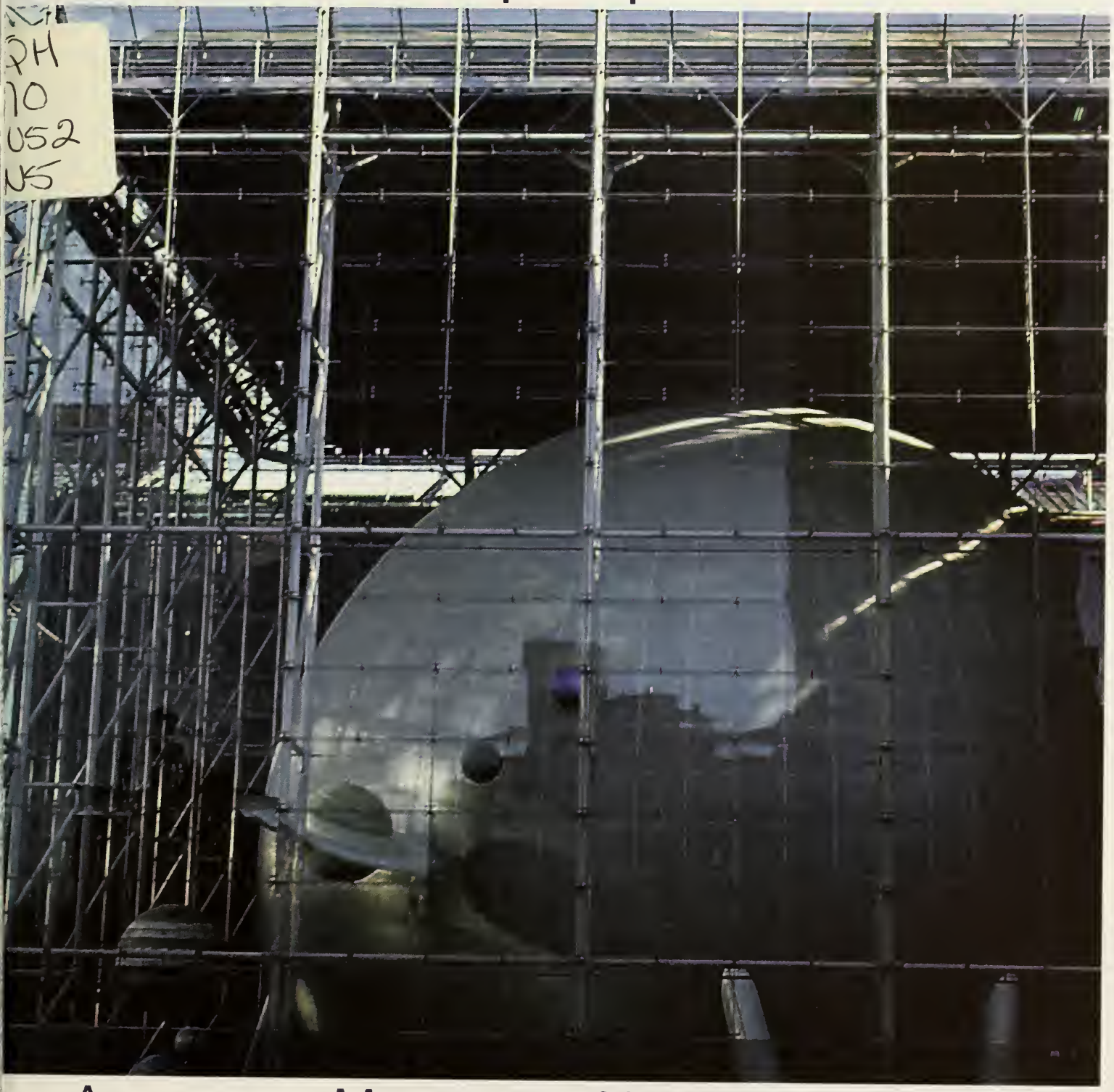
rotunda

Vol. 25, No. 2 February 2000

Members' Newsletter

Rose Center for Earth and Space Opens

QH
10
U52
N5



American Museum of Natural History

countdown to the cosmos

On February 19, the Museum will open the most spectacular addition in its 130-year history–the Frederick Phineas and Sandra Priest Rose Center for Earth and Space. Throughout the Center, cutting-edge exhibition techniques will create a thrilling journey for Museum visitors, taking them from the outer reaches of the universe to the inner workings of the Earth.

Already receiving universal praise as an architectural icon for the new millennium, the $210 million Frederick Phineas and Sandra Priest Rose Center for Earth and Space uses the most sophisticated technology available to translate the complex ideas of astronomy and astrophysics, the nearly unimaginable magnitude of the universe and our place in it, into easily accessible concepts.

Appearing miraculously to levitate in a 120-foot glass cube, the 87-foot Hayden Planetarium sphere serves as the conceptual and functional centerpiece of the Rose Center.

Situated within the top half of the sphere and accommodating 429 viewers, the state-of-the-art Space Theater provides visitors with a passport to the universe. Combining the Zeiss Mark IX projector–the most advanced projector of its kind, capable of projecting more than nine thousand stars with remarkable clarity–with three-dimensional images generated by a high-powered Digital Universe computer loaded with astronomical data from observatories on Earth and in space, the visitor is taken on a planet-hopping journey to the edge of the solar system and beyond.

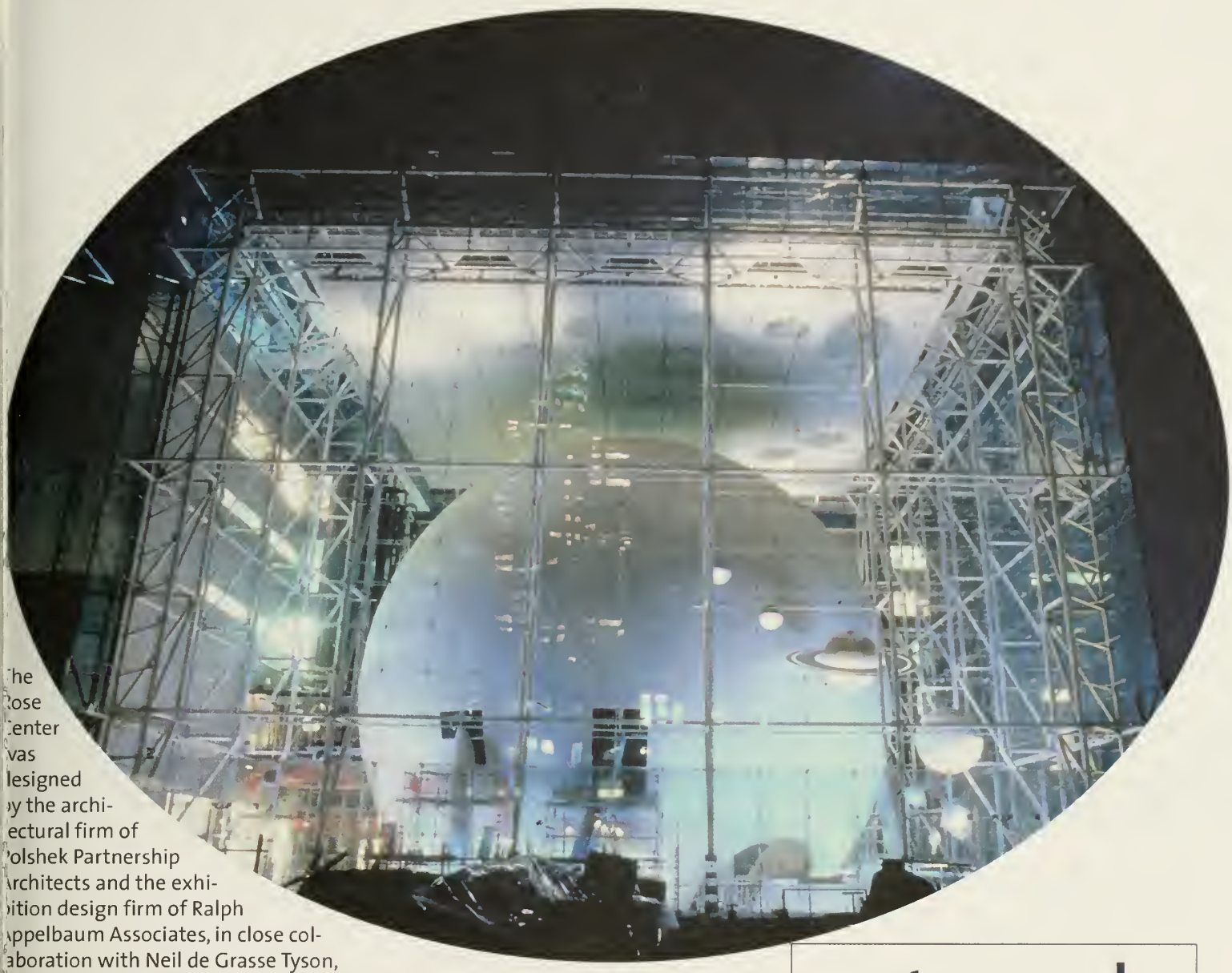
As if that weren't enough sensory overload, found directly beneath the Space Theater, in the sphere's lower half, the Big Bang Theater further pushes the imagination as the visitor witnesses a recreation of the universe's tumultuous first three minutes. All of the universe's energy and what was to become each and every one of its atoms, from stardust to the components of our own cells, was created in this flash–replicated in its mind-numbing intensity and magnitude.

Having survived the explosive beginnings of space and time, the journey of discovery continues down the Harriet and Robert Heilbrunn Cosmic Pathway–a walkway representing 13 billion years of cosmic evolution in three hundred feet, or three million six hundred thousand years per inch.

Sitting beneath it all, the Dorothy and Lewis B. Cullman Hall of the Universe not only provides breathtaking views of the sphere above but uses interactive technology to explain and illuminate the remarkable discoveries of modern astrophysics–from examining how the universe evolved into its component parts (galaxies, stars, and planets) to understanding how atoms, our very ow building blocks, were created by cosmic events. Since more has been learned about astronomy in the last twenty years than that learned in all history preceding 1980, an electronic science bulletin called the AstroBulletin, locate in the Cullman Hall of the Universe, wi combine the latest news and images o cosmic events with scientific explanation.

Next, containing 168 dramatic rock sam ples from around the globe, along with 11 full-scale models of classic outcroppings from over two dozen countries, the David S. and Ruth L. Gottesman Ha of Planet Earth (opened in June of 1999 explores both how the Earth works and the circumstances required to make ou planet habitable. At the hall's center, a eight-foot hemispherical globe re-creates the Earth's rotation, complete wit projections of clouds and oceans forming and receding. Like the Cullman Hal AstroBulletin, the Gottesman Hall features a seven-by-twelve-foot digital video, the Earth Event Wall, which continually offers updated explanations o events such as earthquakes, volcanoes, and major storms as they take place around the world.

Cover: the new Rose Center for Earth and Space, photo by Denis Finnin, AMNH. Left computer rendering of the Rose Center. Above Right: the Rose Center at night, photo by Denis Finnin, AMNH.



The Rose Center was designed by the architectural firm of Polshek Partnership Architects and the exhibition design firm of Ralph Appelbaum Associates, in close collaboration with Neil de Grasse Tyson, Frederick P. Rose Director of the Hayden Planetarium, James A. Schmidt, Executive Director of the Rose Center for Earth and Space Project, and Director of Special Projects James S. Sweitzer–all under the expert stewardship of Museum President Ellen V. Futter.

Realizing a mind-stirring design while seamlessly integrating the Center's exhibits into the Museum's overall comprehensive telling of the story of life, the Rose Center for Earth and Space helps us to better understand the pale blue dot we call home and its place in the nearly limitless universe. Mapping the grand structure of this universe, making one aware of the vastness of space and time, the Rose Center succeeds at stretching even the imagination's boundaries. As such, it will undoubtedly serve as a guiding star of scientific inquiry for years to come.

Major individual gifts to the Rose Center have been provided by Frederick P. and Sandra P. Rose, Mr. and Mrs. Richard Gilder, Dorothy and Lewis B. Cullman, David S. and Ruth L. Gottesman, Robert R. and Elizabeth S. Barker, Joan Bull, Harriet and Robert Heilbrunn, and the Arthur Ross Foundation. Support for the Hayden Planetarium has been provided by a generous grant from the Charles Hayden Foundation.

Major support from Eastman Kodak Company.

Public support of the Rose Center has been provided by the State of New York, the City of New York, Office of the Mayor, the Speaker and the Council of the City of New York, and the Office of the Manhattan Borough President. Programming and educational support have been provided by the National Aeronautics and Space Administration (NASA).

rotunda

ISSN 0194-6110
Vol. 25, No. 2, February 2000

John Davey, Editor
Rosemary Caulk, Director of Membership
Lynn DeBow, Vice President for Development and Membership
Ellen V. Futter, President
Anne Sidamon-Eristoff, Chairman

Rotunda is published monthly, except for a combined issue in July/August, by the Membership Office of the American Museum of Natural History, Central Park West @ 79th Street, New York, N.Y. 10024-5192. Telephone: (212) 769-5606. Web address: www.amnh.org. Museum membership of $45 per year and up includes a subscription to *Rotunda*. ©2000 American Museum of Natural History. Periodical postage paid at Rutherford, N.J., and at additional mailing offices. Postmaster: Please send address changes to *Rotunda*, Membership Office, AMNH, at the above address. Printed in the USA.

program listings

DEPARTMENT OF EDUCATION

BODY ART IN ASIAN THEATER

Performers and artists from Japan and China demonstrate, explain, and contextualize the different body and facial arts of Kabuki Theater, in February, and Kunju Opera, in March. The performers transform their bodies and faces into historical, mythological, and other characters of the theater with accompanying expressions and movement.

Kabuki Theater by Iemoto Yoshie Tachibana

Friday, February 25, 6:00 to 8:00 p.m.; Saturday, Feb. 26, 2:00 to 4:00 p.m. & 6:00 to 8:00 p.m.; and Sunday., Feb. 27, 2:00 to 4:00 p.m. Linder Theater, first floor.

Having its origins in the 16th century, Kabuki Theater dramas reveal much of the traditional culture and history of Japan. The classical dance, or Nihon Buyo schools, preserve many of Kabuki's dances and techniques. Tachibana, considered one of today's foremost leaders of Japan's classical dance, demonstrates and explains the various methods and techniques of Kabuki's unique theatrical make-up. While applying the make-up, Tachibana transforms into two characters–the female nyobo, or married woman of the Edo Period, and the strong young male character Goro. Following the make-up demonstration, Tachibana explains the characters and performs excerpted dances specific to the characters. Iemoto Yoshie Tachibana is director and master of the Tachibana Dance School in Tokyo and has received numerous awards for her innovative choreography and expertise of the dance.

HAYDEN PLANETARIUM

DISTINGUISHED AUTHORS IN ASTRONOMY:

Magnificent Universe

Ken Croswell

7:30 p.m., February 14. Kaufmann Theater.

Ken Croswell is an astronomer at Berkeley, California, who received his Ph.D. from Harvard University for studying the Milky Way Galaxy. Croswell will lecture from his latest publication, *Magnificent Universe*, which features over a hundred full-page, full-color portraits and is one of the most beautiful astronomy book ever published. It is a lavish celebration of the cosmos, with contributions from the Hubble Space Telescope, an armada of interplanetary spacecraft, and outstanding observatories and astrophotographers on six continents.

FRONTIERS IN ASTROPHYSICS:

Europa: Jupiter's Enigmatic Moon

Clark Chapman

7:30 p.m., February 28. Kaufmann Theater.

Clark Chapman takes us to the ice-covered world called Europa, which has been examined for the last four years by cameras aboard the Galileo spacecraft. Criss-crossed by double ridges, its surface also sports "ice rafts" floating in a once-again frozen sea. So lightly scarred by comet impact craters, Europa's surface must be geologically young, constantly renewing itself. The best interpretation is that Europa has a thick, briny ocean beneath a thin ice crust. But it may take future Europa-intensive spacecraft missions to prove that there is a potentially inhabitable (or inhabited) environment beneath the ice.

Beauty in Physics and Cosmology

Mario Livio

March 6, 7:30 p.m. Kaufmann Theater.

When does a physicist feel that a theory of the universe is beautiful? Do aesthetic principles play a role in choosing the correct theory for the origin and evolution of the universe? These questions will be discussed in the context of the most recent astronomical findings.

Still from *Dolphins*, MacGillivray Freeman Films

New astronomical data suggest that far from slowing down, the expansion of our universe is accelerating! This new information will, in itself, influence future cosmological research in innumerable ways. But on a deeper, more philosophical level, it turns out that the accelerated expansion poses a serious challenge to the idea of a beautiful theory of the universe."

IMAX

Dolphins

Imagine floating in the crystalline, turquoise waters of the Bahamas. Sunlight dances off the rippled, white sandbanks. Swimming alongside you are some of the most graceful and extraordinary creatures on earth, wild dolphins. While few of us will ever have the chance to encounter a dolphin in the wild, audiences will feel like they are swimming alongside these playful creatures when they view *Dolphins*, a large-format Great Adventure Film from MacGillivray Freeman Films, producers of the box-office hit *Everest*.

From the dazzling coral reefs of the Bahamas to the wind-swept seas of Patagonia, *Dolphins* takes audiences on an underwater adventure with inquisitive Atlantic spotted dolphins, acrobatic dusky dolphins, and the familiar bottlenose dolphin. Viewers will meet a young woman scientist, Dr. Kathleen Dudzinski, and her two colleagues, as they lead us on an exploration into their fascinating world.

While most of what we know about dolphins comes from studying them in captivity, Dudzinski and her colleagues conduct their research with dolphins in the wild, a far more strenuous, time-consuming, even dangerous endeavor. Employing innovative scientific methods and technology, Kathleen and her colleagues set out to learn more about how dolphins communicate and their foraging and social behaviors. Audiences may be surprised to witness first-hand how scientific progress is made in inches and not miles, and how the slow accumulation of scientific data is passed on, and expanded upon, from one generation of scientists to the next.

Featuring a soundtrack with music from Grammy Award–winning singer and songwriter Sting, *Dolphins* will capture the imagination of audiences worldwide who will gain newfound respect for the ocean.

Members' Preview, March 10th, 7:00 p.m., IMAX Theater. Be our guest for a Members' Preview of the new IMAX film *Dolphins*. Tim Cahill, co-writer of the the screenplay and author of the National Geographic Book, *Dolphins*, will be on hand to introduce the screening and to autograph copies of his book, which will be available in the book department of the Museum's main shop. Tickets are free, but reservations must be made through Central Reservations at (212) 769-5200.

member's programs

David Hurst Thomas

LECTURES

The Sixth Extinction

Wednesday, March 8, 7:00 p.m.

Join AMNH Curator and Paleontologist Niles Eldredge as he explains that we are living amid a sixth extinction event, one in which scientists predict we are losing 30,000 species a year. During the past half-billion years, there have been five global mass-extinction events (including the comet impact that was probably the cause of the dinosaurs' demise 65 million years ago). At our current rate, the vast majority of the earth's current 10 million species will be gone by the time the planet reaches the next millennium.

Discussing such topics as overharvesting, habitat destruction, invading species, and global warming, Eldredge, the author of *Life in the Balance: Humanity and the Biodiversity Crisis*, will take us through the process in which we have engaged in the radical, systematic transformation of the world's ecosystems–replacing grasslands and woodlands with arable fields, cities, suburbs, malls, and roadways. We have exploited dwindling stands of timber and fisheries; we have fouled the earth, the atmosphere and much of the oceans; and we have introduced alien species around the world–in short, we bear a striking resemblance to those dinosaur-destroying comets. Yet all is not lost. Eldredge will demonstrate that there is a way out: by confronting what we are doing to the species and ecosystems of our planet, we can still change our consumption patterns and preserve what remains of our species.

There will be a book signing after the lecture.

Kaufmann Theater. Code: MM3-1 . Cost: $10 members; $12 non-members.

Niles Eldredge

Photo: Denis Finnin, AMNH

Skull Wars: Kennewick Man, Archaeology, and the Battle for Native American Identity

Wednesday, March 29th, 7:00 p.m.

Based on his book of the same title, AMNH Curator of Anthropology David Hurst Thomas will take us through the centuries of conflict between American Indians and the non-Indians who want to study them, known as the Great American Skull Wars.

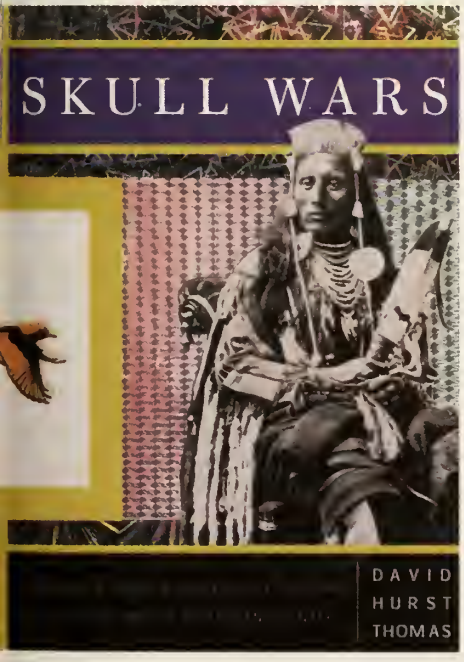
He will explore the multiple American Indian histories evident today–the larger national narrative that glorifies Indian assimilation into the American melting pot; an academic discourse written by anthropologists and historians who view Indians as subjects of scholarly inquiry; and an indigenous "insider's" perspective long maintained in the oral traditions of Indian people themselves. Although sometimes overlapping, these distinct histories often paint quite different visions of America past and present.

Nineteenth-century anthropology promoted the doctrine of racial determinism and in the hands of the physical anthropologist, the human skull provided a way of scientifically defining the races. So viewed, Indians became natural history specimens deserving close scientific study. As a result, nineteenth-century anthropologists routinely collected Native American skulls from graveyards and battlefield–ignoring the protests of Indian people.

ne conflict came to a head when a early complete 9,400-year-old skele- n washed out of a Washington river- ank in 1996. Archaeologists called him ennewick Man"–after the nearby wn of Kennewick, Washington–and anned extensive scientific study. But e Umatilla tribe claimed the bones as eir own, prohibiting scientific study nd demanding that the bones be re- uried. They also insisted that the skele- n be called "The Ancient One" ecause, from the Indian perspective, e bones were theirs to name and con- ol. Since then, the bones have been cked up in years of legal wrangling.

he bizarre case of Kennewick Man mbolizes the deep rupture between dian and non-Indian perspectives on merica's past. This lecture looks at the eep roots of that controversy and ar- ues that science needs to reinvent a nore sensitive, more inclusive archaeol- gy for the 21st century. Books will be vailable for purchase and signing at he lecture.

aufmann Theater. Code: MM3-2 .Cost: 10 members; $12 non-members.



PREVIOUSLY LISTED

Geology of the Planets

Wednesday, February 16, 7:00 p.m.

Join Sidney Horenstein as he takes us out into the solar system to study the make-up of the planets. Kaufmann Theater. Code: MM2-5. Cost: $10 members; $12 non-members.

PARENT/CHILD WORKSHOP

Creating Valentines

Saturday, February 5 and Sunday, February 6, 10:30 a.m. and 2:00 p.m.

In an age of e-valentines, a paper one can have a special value—especially one you make yourself. With scissors, paper, and imagination, you can make a one-of-a-kind valentine greeting for your friends and family.

Room 319. Code: MM2-1 (Sat.) and MM2-2 (Sun.). Cost: $24 per adult/child pair; members-only.

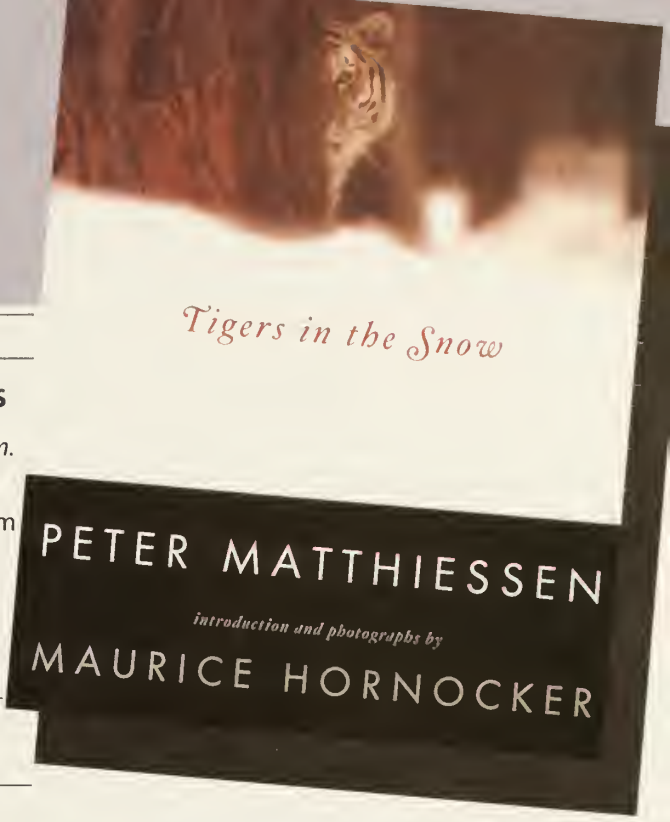
FAMILY LECTURE

The Animals of Puerto Rico

Sunday, February 6, 2:00 p.m.

Renowned Cuban biologist and photographer Alfonso Silva Lee will present a slide-illustrated talk about the fascinating fauna of the beautiful tropical island of Puerto Rico. Discover 37 species of indigenous land animals, including the Mona rock iguana, the blind snake, giant millipedes, the tailless whip scorpion and the coqui. Travel from the forests to the sea to learn about marine creatures such as octopus and French angelfish.

Kaufmann Theater. Code: MM2-3. Cost: $10 adult, $5 child for members $12 adult; $6 child for non-members.



MEMBER EVENT

Tigers in the Snow

Tuesday, February 22, 7:00 p.m.

No more than a few thousand tigers survive in pockets of Asia, a continent where they once roamed far and wide. The largest of them, the Siberian tiger, is today almost entirely confined to the Russian Far East. Peter Matthiessen, well-known author of *The Snow Leopard* and numerous other works of fiction and nonfiction on natural history topics, accompanied researchers into the field. In his new book, *Tigers in the Snow*, Matthiessen recounts these fascinating expeditions and allows us to vicariously participate in the battle for the future of one of the world's most awesome creatures. Underscored by Maurice Hornocker's spectacular one-of-a-kind photographs, Matthiessen conveys what a loss to our collective imagination the disappearance of these great cats would be.

The newly released *Tigers in the Snow* will be available for purchase and signing following the program.

Cost: $10 members; $12 non-members. Code: MM2-6.

february

Current Exhibits

The Butterfly Conservatory
October 9–March 26
Body Art Marks of Identity
November 20–May 29
The New York Times Capsule
December 4–March 26

Tuesday 1
Climate Change and Public Health
Education Course
7:00–8:30 p.m.

Wednesday 2

Thursday 3
From Copernicus to Einstein
Planetarium Course
6:30 –8:40 p.m.

Friday 4

Saturday 5
Creating Valentines
Members' Program
10:30 a.m. & 2:00 p.m.
African Diaspora Celebration
Multicultural Programs
1:00–5:00 p.m.

Sunday 6
Creating Valentines
Members' Program
10:30 a.m. & 2:00 p.m.
The Animals of Puerto Rico
Members' Lecture
2:00 p.m.
African Diaspora Celebration
Multicultural Programs
1:00–5:00 p.m.

Monday 7

Tuesday 8
Climate Change and Public Health
Education Course
7:00–8:30 p.m.

Wednesday 9

Thursday 10
The Great Auk
Education Program
7:00–8:30 p.m.
From Copernicus to Einstein
Planetarium Course
6:30 –8:40 p.m.

Friday 11

Saturday 12
Rose Center for Earth and Spa
Members' Previews

African Diaspora Celebration
Multicultural Programs
1:00–5:00 p.m.

Sunday 13
Rose Center for Earth and Spa
Members' Previews

African Diaspora Celebration
Multicultural Programs
1:00–5:00 p.m.

Monday 14
Rose Center for Earth and Spa
Members' Previews

Magnificent Universe
Distinguished Authors in Astronom
Lecture
7:30 p.m.

Tuesday 15
Rose Center for Earth and Spa
Members' Previews

The Sky is not the Limit: The A
ventures of an Astrophysicist
Members' Lecture
7:00 p.m.
GENOME: The Autobiography
Species in 23Chapters
7:00–8:30 p.m.

ednesday **16** Geology of the Planets
Members' Lecture
7:00 p.m.
Seminar in Cosmology
Planetarium Course
6:30–8:40 p.m.

iursday **17** Rose Center for Earth and Space
Members' Previews

From Copernicus to Einstein
Planetarium Course
6:30–8:40 p.m.

iday **18** Rose Center for Earth and Space
Members' Previews

turday **19** Rose Center for Earth and Space
Opens

African Diaspora Celebration
Multicultural Programs
1:00–5:00 p.m.

nday **20** African Diaspora Celebration
Multicultural Programs
1:00–5:00 p.m.

onday **21**

uesday **22** Tigers in the Snow
Members' Lecture
7:00 p.m.

ednesday **23** Seminar in Cosmology
Education Course
6:30–8:40 p.m.

Thursday **24** Mother Nature
Education Lecture
7:00–8:30 p.m.
From Copernicus to Einstein
Planetarium Course
6:30–8:40 p.m.

Friday **25** Kabuki Theater
Education Program
6:00–8:00 p.m.

Saturday **26** Kabuki Theater
Education Program
2:00–4:00 p.m. & 6:00–8:00 p.m.
Body Art and Youth Cultures
Education Lecture
7:00–8:30 p.m.

Sunday **27** Kabuki Theater
Education Program
2:00–4:00 p.m.
Stars in my Eyes
Planetarium Course
2:00–4:00 p.m.

Monday **28** Europa: Jupiter's Enigmatic Moon
Frontiers in Astrophysics Lecture
7:30 p.m.

Tuesday **29**

Phone Numbers at Your Fingertips

Museum Information	(212) 769-5100
Membership Office	(212) 769-5606
Planetarium Information	(212) 769-5900
Members' Birthday Parties	(212) 769-5154
Education Department	(212) 769-5304
Planned Giving Office	(212) 769-5119
Discovery Tours	(212) 769-5700
*toll-free	(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
Website	http://www.amnh.org

For program reservations, please call (212) 769-5200

MEMBERS' LECTURE

The Sky is not the Limit: The Adventures of an Urban Astrophysicist

Tuesday, February 15, 7:00 p.m.

Enjoy a rare chance to hear the captivating story of a boy from the Bronx who overcame adversity to become one of America's most prominent astrophysicists.

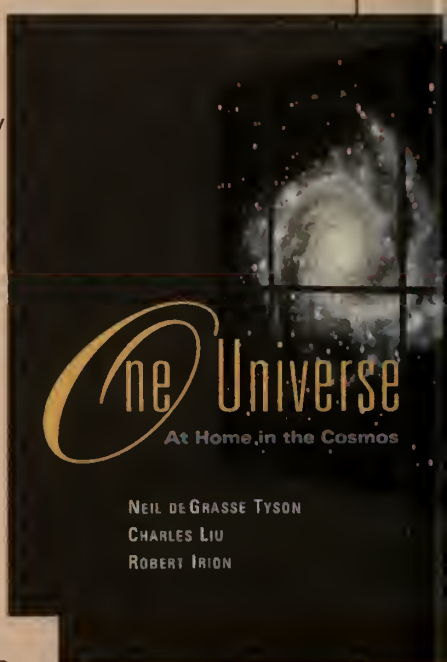
Join AMNH's own Neil de Grasse Tyson for an hour of reflections on a distinguished life bringing the universe down to earth.

Neil de Grasse Tyson is the Frederick P. Rose Director of the Hayden Planetarium and author of two recent books. His memoir: *The Sky is not the Limit*, upon which this evening's talk is based, and the handsome companion volume to the opening of the Rose Center, *One Universe: At Home in the Cosmos* (see below), co-written with Charles Liu and Robert Irion, will be available for purchase and signing after the lecture.

Kaufmann Theater. Code: MM2-4. Free—members only.

OPEN A WINDOW ON THE UNIVERSE–AND THE 21ST CENTURY

Celebrate the opening of the 21st century and the Rose Center with *One Universe: At Home in the Cosmos* by Neil de Grasse Tyson, Charles Liu, and Robert Irion, the book that captures the science and the spirit of the Center.



Outside our windows the sky is bright with stars, planets, the sun and moon, and an occasional comet or shooting star–wondrous objects light-years away in a universe moving according to its own principles.

Physically and intellectually, these celestial bodies seem unreachable. But recent discoveries in astronomy and physics reveal that the principles that govern our everyday life and the workings of the cosmos are the one and the same. The force of gravity that finally lands a home-run ball in the bleachers keeps the moon in orbit; the crystal in the window that breaks light into sparkling colors is just another version of the crystal scientists use to understand light from galaxies billions of miles from Earth, *In One Universe: At Home in the Cosmos* (Joseph Henry Press) Neil de Grasse Tyson, Frederick P. Rose Director of the Hayden Planetarium at the American Museum of Natural History, Charles Liu, an astrophysicist at the Museum, and Robert Irion, a contributing editor and correspondent to *Astronomy* and *Science*, reveal that what happens in our kitchens and backyards is an Earth-bound version of cosmic processes.

The book is being published in conjunction with the opening of the new $200 million Rose Center for Earth and Space at the American Museum of Natural History. Available in all our bookstores, $36.00 Special Members' Price.

saac Asimov Memorial Fund

omehow, Isaac Asimov found time in between working on his 400-plus books to develop a love for the AMNH's old Hayden Planetarium. It was a love which his second wife, Dr. Janet Jeppson Asimov, still shares.

"Isaac used to participate in symposiums at the planetarium," Janet said during a recent visit to the Museum and the new Frederick Phineas & Sandra Priest Rose Center for Earth and Space. "And, of course, growing up in Westchester, I've loved it since I was a child."

Janet, like Isaac, started writing at the age of eleven. "He thought he could never make a living from his writing," she recounted, "so he did other things, as well. He published his first story at the age of 18, then combined teaching with writing for another eight years before he realized he could manage it. I, on the other hand, just went to medical school."

Janet finished medical school and became a working psychoanalyst. As soon as her studies were completed, she resumed her writing.

"In 1966, I had my first story published in a mystery magazine. At that time, I had been in full-time private practice for ten years, which I continued for another 30 years until Isaac became ill–all without a major vacation."

Janet has had 20 books published, some co-authored with Isaac, including the well-loved children's series about Norby, the robot. Though she actually wrote them, "Isaac always read the final draft in case I had made any scientific mistakes."

"For many years, Isaac had been writing a weekly science column for the L.A. Times Syndicate. When Isaac became ill in 1991, Janet began to write the column for him, hoping he'd get better and return to writing it.

"When he grew worse, I called them, telling them he was going to die and that I'd been writing the column, at which point they decided to put both of our names on it. When he did die, I called, telling them I expected the column to end, but they suggested that I continue writing it myself–which I am doing to this day. So I've been a science writer for eight years. It keeps the cerebral cortex in fine fettle."

During these years, while working on the column, Janet has often called scientists here at the Museum with a question. "It was difficult for me. I had to research and confirm everything, but it was easy for Isaac. Everything came naturally to him. That's the advantage to being a genius."

"We wrote an article for the *Washington Post* called "The Tyrannosaurus Prescription," in answer to the question: What do you like about New York City? Basically, it's theme was that whenever the world is too much with us, we can come up and look at the Tyrannosaurus, which returns everything to its proper perspective." The story went on to become the title of one of Isaac's essay collections.

The acquisition of the giant squid specimen by the Museum prompted Janet to write a column about this extraordinary creature, and her recent piece on butterflies was partially inspired by the Museum's Butterfly Conservatory.

Janet's connection with the Museum is not restricted to New York City. She has traveled on numerous Museum-sponsored trips, including a whale-watching expedition and a trans-Canadian railroad journey. "All the trips were wonderful," she said.

"I'm absolutely crazy about this museum," she said in closing. "I wanted to do something in Isaac's memory. Other groups have set-up lectures in his name, but I wanted to do something special."

In this spirit, Dr. Janet Jeppson Asimov has established the Isaac Asimov Memorial Fund, which will provide ongoing funding for a yearly lecture or panel series to be held in Isaac's memory in the new Rose Center for Earth and Space.

Proceeds from the lecture's ticket sales will support education programming in the Rose Center. This fund is a fitting tribute to one man's love for the Museum and its dedication to the mind-expanding task of exploring the universe–the very boundaries of which we visit, in imagination, as we read his writings.

Dr. Janet Jeppson Asimov at the new Rose Center for Earth and Space

Photo: Denis Finnin, AMNH

program listings

HAYDEN PLANETARIUM COURSES

Stars in my Eyes

Sunday, February 27, March 5, 12, 19, 2–4:00 p.m.

Instructor: Francine Jackson.

Program Code; HP17. Fee $60.

This course for children ages 8 and 9 will introduce the young science enthusiast to the basic concepts of astronomy including the planets, constellations, the Moon, and the comets. Each class will include hands-on activities and a project to take home.

Seminar in Cosmology

Wednesdays, February 16, 23, March 1, 8, 15, 22, 29, April 5, 6:30 –-8:40 p.m.

Instructor: William Dorsey.

Program Code: HP21. Fee: $95.

Cosmology is the study of the large-scale structure and evolution of the universe. This seminar examines the principles, methods, and subject matters of modern cosmology as a philosophically based science that seeks answers to such questions as: Did the Big Bang really happen? What is space-time? What is relativity? How relative is relativity? What is the universe made of and does it look the same in every direction? Where did galaxies come from? Is the universe expanding? How will the universe end? Discussions are encouraged during each session.

From Copernicus to Einstein

Thursdays, February 3, 10, 17, 24, March 2, 9, 16, 23, 6:30–8:40 p.m.

Instructor: William Dorsey.

Program Code; HP23. Fee: $95

A survey of four of the great ideas that have brought about revolutionary change in astronomy and physics. Sessions explore Copernicus's astronomy, Galileo's physics and astronomy, Newton's physics, and Einstein's relativity of time and space, examining historical and schematic presentations of each theory for an understanding of how these profound ideas have affected our

pursuit of reality. No formal training in physics or math is needed.

The New Solar System

Thursdays, March 30, April 6, 13, 27, May 4, 11, 18, 25, 6:30 - 8:40 p.m.

Instructor: Francine Jackson.

Program Code; HP24. Fee: $95.

Information supplied by spacecraft in the past decades brings new excitement to scientific study of the planets. This course investigates planets as parts of the solar system and as individual, unique bodies. Topics include the structure, composition, weather, ring and satellite systems. Images from t many planetary spacecraft complement the lectures and discussions. Introduction to Astronomy is recommended as preparation but not required.

ETHNOASTRONOMY

An Anthropological View of the Sky

Six Tuesdays, February 15, 22 ,29, Marc 7, 14, 21, 6:30–8:00 p.m.

Instructor: John Beatty. Program Code; HP25. Fee: $70.

Discover the role of astronomy i different cultures. This course examines the various symbolic aspects of the heavens. The cos mologies of different cultures a the symbolism associated with them will be discussed, as will rel gion (including mythology) and its relationship to the skies in different societies.

DEPARTMENT OF EDUCATION

Planet Earth

Three Saturdays, once each month in January, February, and March, 1:30–4 p.m.

Fee: $12 each ($10 members, student senior citizens).

Climate Change and Publ Health

Tuesdays, February 1 and 8, 7:00–8:3 p.m.

Fee: $20 ($18 members, students, ser citizens); $12 each ($10 members, stu dents, senior citizens). Program Code ED20202L.

he Great Auk

ursday, February 10, 7:00–8:30 p.m.

e: $12 ($10 members, students, senior izens). Program Code: ED20203L.

ENOME: The Autobiography of a pecies in 23 Chapters

esday, February 15, 7:00–8:30 p.m.

e: $12 ($10 members, students, senior izens). Program Code: ED20204L.

aster

ursday, February 17, 7:00–8:30 p.m.

e: $12 ($10 members, students, senior izens). Program Code: ED20205L.

Nother Nature

ursday, February 24, 7:00–8:30 p.m.

e: $12 ($10 members, students, senior izens). Program Code: ED20206L.

ody Art and Youth Cultures

turday, February 26, 7:00–8:30 p.m.

e: $12 ($10 members, students, senior izens) Program Code: ED99236L.

FRICAN DIASPORA ELEBRATION

ebruary 2000

conjunction with the national obser-ance of Black History Month, the merican Museum of Natural History ill celebrate the cultures of Africa and he African Diaspora through music, ance, film and lectures. This year, a pecially curated program by Jacqueline Polanco, Ph.D., J.D., will feature the ulture and history of the Dominican epublic. In addition, two of the week-nd programs will celebrate the films of tanley Nelson, a major documentor of frican American life and history.

Weekend Family Programs, Leonhardt eople Center, 1:00 to 5:00 p.m.

SATURDAY & SUNDAY, FEBRUARY 5 & 6

Film: *The Americas: Mirrors of the Heart; Race and Identity*, 1:00 p.m.

"Subversive" African Influences in Dominican Culture, 2:00 & 3:30 p.m.. Ernesto Sagás, Ph.D.

African Dominican Music and Dance, 2:30 & 4:00 p.m., La 21 División

SATURDAY & SUNDAY, FEBRUARY 12 & 13

Film: *The Black Press: Soldiers Without Swords*, 1:00 p.m., Stanley Nelson, Director.

Message from the Masai, 2:00 & 3:30 p.m., Peter Ledama Ole Kanta.i

The Blues Duo, 2:30 & 4:00 p.m., Henry Afro Bradley & Jasper McGruder

SATURDAY & SUNDAY, FEBRUARY 19 & 20

Film: *Two Dollars and A Dream*, 1:00 p.m., Stanley Nelson, Director.

A Yoruba View of the New Millennium, 2:00 & 3:30 p.m., Dr. Akinsola Akiwowo.

Drum Beats: Archival Communication in the Museum, 2:30 & 4:00 p.m.

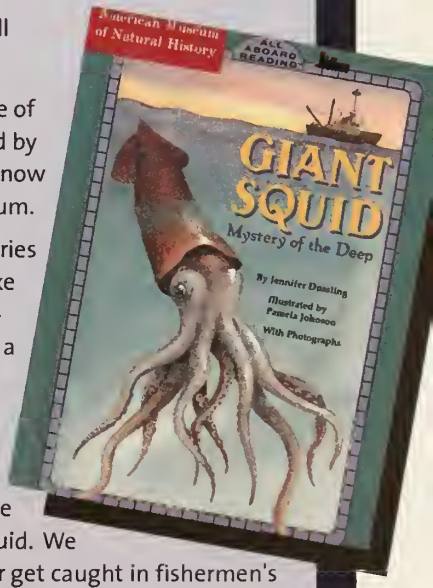
These programs are free with the suggested Museum admission, and do not require tickets or reservations. Please visit the Museum's Web site at www.amnh.org/education.

The American Museum of Natural History wishes to thank the May and Samuel Rudin Family Foundation, Inc., and The Leonhardt Foundation for their support of these programs.

Giant Squid: Mystery of the Deep

by Jennifer Dussling

Illustrated by Pamela Johnson, with Photographs. An "All Aboard Reading" book for Grades 1-3



This lively children's book recounts the adventurous tale of how the Museum's new giant squid specimen, procured by Dr. Neil Landman of the Invertebrates Department and now on display in the Hall of Biodiversity, came to the Museum.

The giant squid remains one of the world's great mysteries and is probably the basis for legendary sea-monsters like the kraken. Very little is known about this amazing torpedo-shaped creature with eyes the size of soccer balls, a body the length of two school buses, and a beak that could snap steel cable. No one has ever seen one alive. We don't know what it eats, whether it lives alone or in groups, if it can change colors, or whether it swims head up, head down, or sideways. In fact, we know more about extinct dinosaurs than we do about the giant squid. We know it exists only by remains that wash up on shore or get caught in fishermen's nets, such as our Museum specimen did in 1997, and whose body can now be studied by Museum scientists.

On sale in the Museum Shop: HC $13.89; PB $3.99.

museum notes

Members' Families Celebrate the Holidays

The second annual Members' Family Holiday Party (pictured above right) proved to be a smashing success. Kids big and small had the chance to participate in events such as face painting, origami, and planetary twister. With music provided by Museum favorites David Grover and the Big Bear Band and a very special reading of Jeff Moss' *Bone Poems* by Susan Sarandon and Annie Boylan, the more than 1200 in attendance enjoyed a wonderful afternoon at the Museum.

Jr. Shop and Planetarium Shops Opening Soon!

Visit the new Museum Shop, 77th Street Shop, Dinostore & More, and the Special Exhibition Shops, or visit us online at www.amnh.org.

NEW AMENITIES AT THE AMERICAN MUSEUM OF NATURAL HISTORY

Parking Garage

The new Museum Parking Garage will open in mid-February.

Some of the items available at the new Musuem Shops.

Restaurant Facilities

ALREADY OPEN:

Cafe 77 (Snack Bar) in West 77th Street Lobby. Every day, Sun.–Sat.: 11:00–4:45

Sandwiches, fruits, wraps and salads, pastries and desserts, juices, sodas and bottled beverages, coffees and snacks.

Cafe on 4 (Central Park West-side of Museum, on the fourth floor near the Dinosaur Halls). Sun.-Thurs.: 11:00–4:45 Fri.-Sat.: 11:00–7:45

Sandwiches, fruits, wraps and salads, pastries and desserts, juices, sodas and bottled beverages, coffees and snacks.

OPEN IN LATE FEBRUARY

Food Court. Sun.–Thurs.: 11:00–4:45 Fri.-Sat.: 11:00–7:45.

This sparkling new dining area for 450 people is located opposite what the MTA describes as "the greatest subway station in the city." (The 81st Subway Station, with entrance to the Museum, is under construction, but will open soon.) Visitors can access the Food Court directly from the new Rose Center for Earth and Space, from other areas within the Museum, and from the completely renovated subway station, which is filled with colorful wall tile reproductions of

M
seum
images. An eye-catching marquee allows visitors to check the elabo rate menu before entering the Food Court.

The Food Court offers comfortable din ing in a mix of seating choices, includ ing banquettes, booths, and high stoo at counters, that offer an opportunity observe the activity in cooking areas within the restaurant.

The lively Pizza Station serves a variety of pizza by the slice; Calzone; daily pasta al forno, in large portions or half portions; focaccia, and hero sandwiches; garlic bre stick; and sodas in big gulp, medium, and large sizes.

The Grill offers hamburgers, grilled chicken sandwiches, frankfurters, crisp corn tortilla nachos, jumbo pretzels, a french fries. There is a "Children's Valu Meal" with a choice of cheeseburger o frankfurter, with french fries and soda or milk.

The Pannini Grill will offer soups, pas tas, chilis, hot tramezzini, grilled sand wiches, and different hot dishes

The Bakery offers freshly baked cookie as well as cookies from Eli's Bakery.

There are fresh fruit pies, tarts and col blers, whole and by the portion; yogu soft serve; a wide variety of pastries; and an espresso coffee bar.

Note: With the opening of the new dining facilities, Members will enjoy a 15% Discount at the Museum Food Court and Cafes.

REMINDER:
The American Museum of Natural History
is pleased to invite you to attend a
Members Preview
of the spectacular new
Frederick Phineas and Sandra Priest Rose Center for Earth and Space
on February 12, 13, 14, 15, 17 and 18, 2000

Family and Higher Level members may reserve four complimentary tickets.
Individual and Dual members may reserve two complimentary tickets.

Due to the limited capacity of the Rose Center's Space Theater in the Hayden Planetarium, you must have advance reservations to attend the preview in order to insure seating in the Space Show.
Your tickets for the Members' Preview will be mailed to you.

RESERVATION FORM

Please choose the dates and times you prefer to attend, complete this form and mail it to the Membership Office, Members' Preview, American Museum of Natural History, CPW at 79th Street, New York, NY 10024. **No telephone reservations can be accepted.**

Reservations are available for the Hayden Planetarium's Space Shows on:
February 12 and 13 between the hours of 10:00 a.m. and 5:30 p.m.*
February 14, 15, 17 and 18 between the hours of 12:00 and 5:30 p.m.*

*Shows are ticketed for each half hour.

PLEASE PRINT

	DATE	TIME	#TICKETS
1st Choice			
2nd Choice			
3rd Choice			

Please check the mailing label on the reverse side of this form to make sure that we have your correct address.
Your name _____ Daytime telephone_____

For information only about the Members' Preview of the Rose Center, please call the Membership Office at (212) 769-5606 during business hours.

AM. MUS.NAT.HIST.LIBRARY

Museum Hours

Exhibition Halls

Mon.–Thurs.	10:00 a.m.–5:45 p.m.
Fri. & Sat.	10:00 a.m.–8:45 p.m.
Sun.	10:00 a.m.–5:45 p.m.

The Museum Library

Tues.–Fri.	11:00 a.m.–4:00 p.m.

Museum Dining

Cafe on 4

Sun.–Thurs.	11:00 a.m.–4:45 p.m.
Fri.–Sat.	11:00 a.m.–7:45 p.m.

Ocean Life Cafe

Sun.–Thurs.	11:00 a.m.–4:45 p.m.
Fri.–Sat.	11:00 a.m.–7:45 p.m.

77th Street Snack Bar

Sun.–Thurs.	11:00 a.m.–4:30 p.m.
Fri.–Sat.	11:00 a.m.–4:30 p.m.

Natural Science Center

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.

The Museum Shop

Mon.–Thurs.	10:00 a.m.–5:45 p.m.
Fri. & Sat.	10:00 a.m.–7:45 p.m.
Sun.	10:00 a.m.–5:45 p.m.

Parking

The visitor parking garage will open mid-February. For public transportation and local parking information, call (212) 769-5200. The Museum is well served by public transportation.

AMERICAN MUSEUM OF NATURAL HISTORY

M E M B E R

Membership Department,
Central Park West @ 79th Street
New York, New York 10024-5192
www.amnh.org

Central Reservation Coupon

Program Name/Date # Members

Total $

Mr./Mrs./Miss/Ms.

Address

City State Zip

Telephone (Day) (Evening)

Membership No.

❑ Check ❑ Am.Ex. ❑ Visa ❑ Master Card

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.

Received 02-03-00

Entrances

During Museum hours, visitors can enter the building through the 77th Street entrance, or the first- and second-floor Roosevelt Memorial Hall entrances (79th Street and Central Park West). The subway entrance is temporarily closed for construction.

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.

rotunda

L. 25 No. 3 March 2000

Members' Newsletter

RT OF THE DIORAMA

70
52N5
25
. 3
r 2000

American Museum of Natural History

reproducing the world

In most museums, paintings are framed and exhibited for all the world to see, celebrating an artist's vision of the world, and, in the process, the artist himself.

At the American Museum of Natural History, the artist's role, by design, is quite different. In fact, the casual museum-goer might be surprised to learn that over the years many supremely talented artists have worked to make the Museum's classic dioramas seem so fully-realized, transporting the visitor from his or her place on 79th Street and Central Park West to the farthest reaches of the globe and the imagination.

This effect is achieved only when the Museum's diorama artists leave little or no trace of themselves in their work, making it appear seamlessly real. When combined with taxidermied animals and realistic reproductions of indigenous flora, the effect is to make the three-dimensional model appear more vibrant and evocative than a photograph of the actual natural scene.

Having hidden behind their self-imposed anonymity long enough, it is time we push aside the curtain and look at some of the artists behind these overlooked works of art, artists such as Francis Lee Jacques, Matthew Kalmenoff, William R. Leigh, Carl Rungius, and James Perry Wilson.

"True art is to conceal art."

—J. Perry Wilson

Born in New Jersey in 1889, James Perry Wilson was not only one of the most accomplished of the Museum's diorama painters he also created one of the most effective systems of reproducing an image on a curved wall–a challenge unique to diorama painters, who had to avoid corners and the threat they posed to the panoramic illusion.

For Wilson, the first step of the process was to travel to the site, making full-color sketches and taking photos. Next, he would return to the Museum, where he would draw a grid on the wall, adjusting for its curvature. This grid corresponded exactly to a scaled version that he would then place over his photos. Continually refining his technique at the Museum from 1931 to 1957, Wilson painted some of the Museum's classic dioramas–each easily identified by their expression of everything from the scene's mood to its smallest detail.

William R. Leigh, who is responsible for one of the Museum's most beloved and realistic dioramas, the Mountain Gorilla, traveled to Africa with Carl Akeley, the Museum's skilled naturalist taxidermist and sculptor, to research the painting's setting. Akeley conceived the plan for the two-level Hall of African Mammals, developing many of its dioramas as they still appear today.

Concerned with the shrinking habitat and populations of many African wildlife species, Akeley decided to try a new approach to their exhibition, showing lifelike animals in their environmental contexts, hoping the newfound interest in the animals might help create interest in their preservation. Thanks to him, an area

Cover: Matthew Kalmenoff at work on the Oak and Hickory Group. Right: James Perry Wilson painting Western Pine Forest Group. Below: Mountain Gorilla, background painting by William R. Leigh. Below Right: Wilson in the field. Back Cover: Francis Lee Jacques painting background to the Moa Group.

the Kivu Mountains of Zaire was set ide to protect mountain gorillas, presenting the world's first official nimal sanctuary and the subject for e Mountain Gorilla diorama. Leigh rfectly captures the deep, lush lley with a varied palette of vibrant eens and uses soft pink accents to t off the three peaks of the cloud- rouded Kivu Range waiting in the stance (including the mountain here Akeley is buried).

ancis Lee Jacques, who painted the all of African Mammal's wonderful ongo diorama and many of the aintings in the Birds of the World all, had a flair for the deceptively ynamic, giving all his work an uncommon energy and excitement. And Matthew Kalmenoff's densely gorgeous work in the North American Forests Hall, among other Museum locations, gives the visitor the feeling that he or she is walking in the cool shadows of a deep forest.

Out of all the painters who worked on the Museum's dioramas, most of which were created in the first half of the 20th Century, only Carl Rungius, who is responsible for the sprawling, almost impressionistic background of the Alaska Moose diorama in the Hall of North American Mammals, had much of a reputation outside the Museum.

In a way, this seems appropriate, for if Wilson was right when he said "True art is to conceal art," then he and his fellow painters were indeed the truest of artists and we the beneficiaries of their vision.

future issues, we will take a closer look at ie role that artists have played behind the enes of the Museum, from its inception to ie present. Stay tuned...

rotunda

ISSN 0194-6110
Vol. 25, No. 3, March 2000

John Davey, Editor
Rosemary Caulk, Director of Membership
Lynn DeBow, Vice President for Development and Membership
Ellen V. Futter, President
Anne Sidamon-Eristoff, Chairman

Rotunda is published monthly, except for a combined issue in July/August, by the Membership Office of the American Museum of Natural History, Central Park West @ 79th Street, New York, N.Y. 10024-5192. Telephone: (212) 769-5606. Web address: www.amnh.org. Museum membership of $45 per year and up includes a subscription to *Rotunda*.

©2000 American Museum of Natural History.
Periodical postage paid at Rutherford, N.J., and at additional mailing offices. Postmaster: Please send address changes to *Rotunda*, Membership Office, AMNH, at the above address. Printed in the USA.

program listings

BIODIVERSITY EVENT

2000 Spring Symposium: Nature in Fragments: The Legacy of Urban Sprawl

Thursday, April 13, 9:00 a.m.–5:00 p.m. and Friday, April 14, 9:00 a.m.–4:00 p.m.

Our world is being transformed by poorly planned and managed urban development, known as "sprawl." Over the last 50 years, unplanned growth has resulted in air and water pollution, traffic congestion, loss of farmland and open spaces, and the destruction of communities. Sprawl also threatens our natural landscapes, with serious consequences for biodiversity.

Those interested in land-use planning, conservation, and the ways in which sprawl is affecting the natural world are encouraged to attend this symposium to explore in more detail how to integrate biodiversity conservation with all levels of our decision-making.

Nature in Fragments is co-sponsored by the American Museum of Natural History's Center for Biodiversity and Conservation and the Wildlife Conservation Society's Metropolitan Conservation Alliance, with support from Mr. and Mrs. Samuel C. Johnson.

Cost: Non-members $40, AMNH and WCS Members $35, Students $25

For reservations and information, call 212-769-5200, Monday - Friday, 8:00 a.m. - 6:00 p.m. EST; Saturday, 10:00 a.m. - 6:00 p.m. Please refer to program code SPRAWL2K.
Additional information on the symposium will be available at http://research.amnh.org/biodiversity/Sprawl/Symposium2k.html.

DEPARTMENT OF EDUCATION

Body Art in Asian Theater

In conjunction with the current exhibition, *Body Art: Marks of Identity*, performers and artists from China demonstrate, explain, and contextualize the different body and facial arts of Kunju Opera.

Friday, March 3, 11:00 a.m. to 1:00 p.m.; Saturday, March 4, 6:00 to 8:00 p.m.; and Sunday, March 5, 1:00 to 3:00 p.m.

Comprised of 55 scenes, *The Peony Pavilion* is considered an operatic masterpiece. Written in the 16th century by Tang Xianzu, the opera was revived after 400 years by director Chen Shi-Zheng and performed to critical acclaim for Lincoln Center Festival '99. Kunju Opera's leading actress and actor, Qian Yi and Wen Yu Hang, and wig/make-up artist Yang Gui Ying, give a performance and make-up demonstration of *The Peony Pavilion* characters Du Liniang (Beautiful Du) and Liu Mengmei (Willow Dream of Plum). This special event at the Museum is a rare opportunity to observe the operatic artistry of these gifted artists.

All programs are free with suggested Museum admission. For further information, call 212-769-5315, between 9:00 a.m. and 5:00 p.m. weekdays.

Kunju Opera.

WOMEN HONORING WOMEN

March Weekend Family Programs

1:00–5:00 p.m.

Saturday, March 4

Women in Colombian Traditional Music: Lucía co Fiesta de Tambores

1:00 p.m. & 4:00 p.m.

Fiesta de Tambores, a percussion and voice ensemble dedicated to the traditional music of Colombia, presents a variety of rhythms.

Video: *Yuri Kochiyama: Passion for Justice*

2:00 p.m.

Yuri Kochiyama is a women who lived i Harlem for more than 40 years, accum lating a long history of activism. This video chronicles her remarkable contribution to social change.

Women and Social Justice

3:00 p.m.

Madre, an International Human Rights Organization, provides resources, training, and support to enable women's groups to meet concrete needs in their communities.

Esther Cohen, Creative Director of the Bread and Roses Cultural Project in New York City, will discuss the history of the organization.

Sunday, March 12

Pearls of Wisdom

1:00 & 3:30 p.m.

These multicultural elderly storytellers were called "Pearls of Wisdom" for their extraordinary ability to spin original life stories into tales of courage and triumph.

Women of Substance

2:00 p.m.

Jule Mormando, Program Coordinator of JusticeWorks Community in Brooklyn, will discuss the growth of women in prisons.

Film: *My Name is Kahentiiosta*

3:00 p.m.

Profiles the self-determination of young Kanhnawake, a Mohawk woman who was arrested after the 78-day standoff between Mohawks and the Canadian federal government.

Saturday, March 18

Women's Voices: Hear Them Strong, Part I

1:00 p.m.

A rich tapestry of women's voices are shared through poetry and spoken word.

Film: *Girls Like Us*

2:00 p.m.

Filmed in South Philadelphia and following its subjects from the ages of 14 to 18, the film reveals the conflicts of growing up female.

Sunday, March 5

rtuliando/Hanging Out

; p.m. & 4:00 p.m.

ading and discussion of works that erged through the monthly meetings a groups of Dominican women and ends.

lms by and About Women

o p.m.

omen Make Movies was established in 72 to address the under representation d misrepresentation of women in the edia.

lm: *Home is Struggle*

o p.m.

is film explores the lives of women o have come to the United States m different Latin American countries.

ommunity Organizing: ominican Women's evelopment Center

5 p.m.

e Center, founded in 1988, was created ith the goal of contributing to the olistic growth of the Latin women of ashington Heights/Inwood.

turday, March 11

Vomen Tap 2000

o & 4:00 p.m.

n ensemble performance of nine omen tap dancers of varying ages and hnicities connected by their mutual assion for tap dance.

ilm: *The Desert is No Lady*

oo p.m.

his films documents the spirit of omen's creativity born from the landape of the Southwest.

Bread and Roses

oo p.m.

Classical Dance, Contemporary Politics

Women Workers Fight for Control Over Time

3:00 p.m.

Discussion of the devastating effects of the United States' sweatshop system.

Women In Steel

4:00 p.m.

Claudette Baptiste leads Women In Steel, an all-female steel band orchestra.

Sunday, March 19

Women's Voices: Hear Them Strong

1:00 p.m.

A rich tapestry of women's voices are shared through poetry and spoken word.

Video: *A Place Called Home*

2:00 p.m.

Persheng Sadegh Vaziri , who grew up in pre-revolutionary Tehran, returns to Iran after living in the U.S. for 19 years.

Empowered Writing

3:00 p.m.

Barbara Nimri Aziz speaks about empowering women through writing.

Classical Dance, Contemporary Politics

4:00 p.m.

Demonstration of the rhythmic and expressive elements of classical Indian dance.

All programs are free with suggested Museum admission. For further information, call 212-769-5315, between 9:00 a.m. and 5:00 p.m. weekdays., or go to www.amnh.org/education.

The American Museum of Natural History wishes to thank the May and Samuel Rudin Family Foundation, Inc., the Tolan Family and The Leonhardt Foundation for their support of these programs.

members' programs

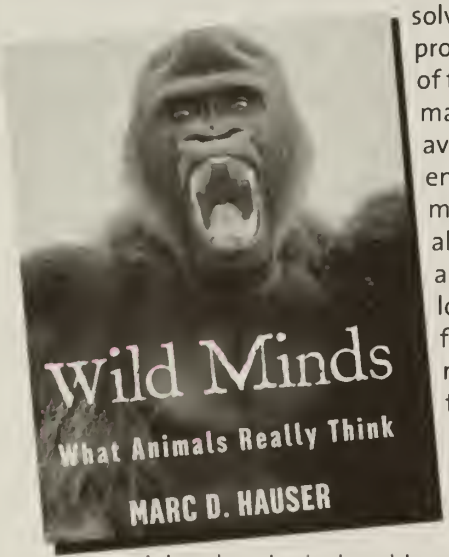
LECTURES

Wild Minds: What Animals Really Think

Tuesday, April 4, 7:00 p.m.

Do animals think? Do they have feelings? Marc Hauser, professor of psychology at Harvard and a preeminent authority on animal cognition, answers these questions and posits other, even more challenging ones. In his lecture, he will explain how insights from evolutionary theory and cognitive science have begun to revolutionize our understanding of animal minds.

Animals are not furry or feathered creatures with human thoughts and emotions. Neither are they mindless machines. Rather, as Marc Hauser argues, each species has evolved a uniquely specialized mind, designed to solve the problems of finding mates, avoiding enemies, making allies, and locating food. To meet the challenges that these social and ecological problems pose, animals are equipped with a set of mental tools. Some of the tools for thinking are universal, shared by insects, fish, reptiles, birds, and mammals, including humans. The universal tool kit provides animals with a basic capacity to recognize objects, count, and navigate. Divergence from the universal tool kit occurs when species confront unique ecological or social problems. Thus, some species have a sense of self, learn by imitation, and communicate with vocalizations that are similar to human words. Specializations do not make one species "smarter" than the other, but they do make each species wonderfully different from the others.



Hauser, an internationally recognized authority in this field, has spent half a lifetime studying animal behavior. His studies have included vervet monkeys living on the savanna in Kenya, chimpanzees in a Ugandan rainforest, crows on a golf course in Southern California, and rhesus monkeys on a tropical island off the coast of Puerto Rico. His new book, *Wild Minds: What Animals Really Think* (Henry Holt & Company), will be available for purchase and signing following the lecture.

Kaufmann Theater. Code: MM4-1. Cost: $10 members; $12 non-members.

From Bugs to Bison: a Grizzly's View of the Greater Yellowstone

Tuesday, April 25, 7:00 p.m.

The threatened grizzly bear has been the focus of extensive research in Yellowstone National Park for the past 25 years. David Mattson, one of North America's foremost experts on this imperiled species, has been involved in investigating grizzly behavior and habitat relationships for the past 17 years. Mattson, a staff member of the Biological Resource Division of the U. S. Geological Survey, will present a slide talk on recent scientific discoveries about this inventive, intelligent, and often surprising animal.

You will also learn more about the Sierra Club's Grizzly Bear Ecosystems Project, based in Boseman, Montana, which is working to ensure a sound future for recovery of the grizzly and the wild places it inhabits.

Kaufmann Theater. Code: MM4-2. Cos
$10 members; $12 non-members.

PERFORMANCE

The Story of Inanna–Quee of Heaven and Earth

Friday, April 28, 7:00 p.m.

Through voice, gesture, and song, renowned storyteller Diane Wolkstein brings to life the oldest known recorded story: the 4,000-year-old ep of Inanna, the Sumerian goddess of love and fertility. Deciphered from cuneiform tablets dating back to 190 BCE, this inspiring myth recounts the emergence of the goddess into womanhood, her courtship and marriage, her descent into the underworld, and her eventual rebirth. In the first half of the epic, which is passionate, ribald, humorous, and tender, Inanna confronts the god of wisdom and meets her husband. In the second half, Inanna travels through the seven gates to the underworld, encountering death, darkness, and compassion.

essed in white lace and wearing a own, Wolkstein appears like a goddess the night. Her powerful, expressive rformance, which she has given on e continents, weaves a magic spell, awing us into another world and aking us a part of that time and ace.

er accompanist Geoffrey Gordon, an traordinarily accomplished musician, eates an atmosphere of ancient times ith flute, drums, santur, harp, conch, nd stones.

aufmann Theater. Code: MM4-3. Cost: 5 members; $20 non-members.

VALKING TOURS

ossils and Geology of Wall treet

turday, March 25, 10:00 a.m.–12:00 on or 12:00 noon–2:00 p.m.

ake a trip through time looking at arth's historical record embedded in the stones of building facades and sidewalks. Some of them contain animals that lived over a millennium ago! Learn about geology in the context of the geological setting of lower Manhattan. Sidney Horenstein, geologist and the Museum's coordinator of environmental programs, leads this two-hour walking tour. Meet at Trinity Church, on the corner of Broadway and Wall Street.

Codes: MM3-3 (10:00 a.m.–noon) or MM3-4 (noon–2:00 p.m.). Cost: $16–members only.

Inanna–Queen of Heaven and Earth

Photo: Diane Wolkstein

Exploring the Palisades

Saturday, April 8, 10:00 a.m.–3:00 p.m.

Getting there is half of the fun! Our four-mile trek begins with a walk over the Hudson River via the George Washington Bridge. Study the features of the Palisades–its geology, origins, history, and relationship to the history of the Hudson River with Sidney Horenstein, geologist and coordinator of the Museum's environmental programs. During the course of the day, we will descend the "thousand" steps to the river level, visit the discovery site of the Museum's own phytosaur and take a side trip to the Fort Lee Historic Museum, which focuses on information about the Revolutionary War in the area. Meet in front of the bus terminal at 178th Street. For the not-so-ambitious, bus transportation is available for the return trip over the bridge.

Code: MM4-5. Cost: $32– members only.

ADULT WORKSHOP

Galactic Mosaics

Saturday, April 29, 1:30 to 4:30 p.m.

Taking their inspiration from the exciting new Rose Center for Earth and Space, participants will build their own mosaic panel with ceramic tile on a wood board. Choose a favorite astronomical image, such as the Milky Way, our solar system, the night sky configurations and constellations, or create your own fantasy of the universe for your design. At the end of the day, you will have your own 8" X 10" work of art to take home.

Pamela Popeson, artist and former director of the Museum's Fossil Reproduction Department, will teach this fascinating workshop.

Room 319. Code: MM4-6. Cost: $35–members only.

PREVIOUSLY LISTED LECTURES

The Sixth Extinction

Wednesday, March 8, 7:00 p.m.

Join AMNH Curator and Paleontologist Niles Eldredge as he explains that we are living amid a sixth extinction event.

Kaufmann Theater. Code: MM3-1 . Cost: $10 members; $12 non-members.

Skull Wars: Kennewick Man, Archaeology, and the Battle for Native American Identity

Wednesday, March 29th, 7:00 p.m.

Based on his book of the same title, AMNH Curator of Anthropology David Hurst Thomas will take us through the centuries of conflict between American Indians and the non-Indians who want to study them, known as the Great American Skull Wars.

Kaufmann Theater. Code: MM3-2 .Cost: $10 members; $12 non-members.

march

Current Exhibits

The Butterfly Conservatory
October 9–April 2
Body Art Marks of Identity
November 20–May 29
The New York Times Capsule
December 4–March 26

Wednesday 1

Thursday 2
Earthwatch at the Museum
Education Lecture
7:00–8:30 p.m.

Friday 3
Body Art in Asian Theater
11:00 a.m.–1:00 p.m.

Saturday 4
Body Art in Asian Theater
6:00–8:00 p.m.
Women Honoring Women Programs
1:00–5:00 p.m.

Sunday 5
Body Art in Asian Theater
1:00–3:00 p.m.
Women Honoring Women Programs
1:00–5:00 p.m.

Monday 6

Tuesday 7

Wednesday 8
The Sixth Extinction
Members' Lecture
7:00 p.m.

Thursday 9
Journey of the Pink Dolphins
Education Lecture
7:00–8:30 p.m.

Friday 10
Youth: Exploring Roots of Violence & Pathways to Peace
Education Program
7:00 p.m.

Saturday 11
Women Honoring Women Pro
1:00–5:00 p.m.
Youth: Exploring Roots of Violence & Pathways to Pea
Education Program
11:00 a.m.–8:30 p.m.

Sunday 12
Women Honoring Women Pro
1:00–5:00 p.m.
What's New in Geology
Education Lecture
7:00–8:30 p.m.
Youth: Exploring Roots of Violence & Pathways to Pea
Education Program
11:00 a.m.–8:00 p.m.

Monday 13

Tuesday 14

Wednesday 15

Thursday 16
New York Microscopical Soc
7:00–10:00 p.m.

Friday 17

Saturday 18
The Changing World of Tatt
Education Panel Discussion
10:30 a.m.–4:00 p.m.

unday **19**

londay **20**

uesday **21**

Vednesday **22** What's New in Geology
Education Lecture
7:00–8:30 p.m.

hursday **23** New York Microscopical Society
7:00–10:00 p.m.

riday **24**

Saturday **25** Fossils and Geology of Wall Street
Members' Walking Tour
10:00 a.m.–noon or noon–2:00 p.m.
Discovery Room
12–4:30 p.m.
Youth: Exploring Roots of Violence & Pathways to Peace
Education Program
10:30 a.m.–8:30 p.m.

Sunday **26** Discovery Room
12–4:30 p.m.
Museum Magic: The Faces We Make
Youth: Exploring Roots of Violence & Pathways to Peace
Education Program
11:00 a.m.–6:00 p.m.

Monday **27**

Tuesday **28** Orangutan Odyssey
Education Lecture
7:00–8:30 p.m.

Wednesday **29** Skull Wars: Kennewick Man, Archaeology, and the Battle for Native American Identity
Members' Lecture
7:00 p.m.

Thursday **30** Earthwatch at the Museum
Education Lecture
7:00–8:30 p.m.

Friday **31**

Phone Numbers at Your Fingertips

Museum Information	(212) 769-5100
Membership Office	(212) 769-5606
Planetarium Information	(212) 769-5900
Members' Birthday Parties	(212) 769-5154
Education Department	(212) 769-5304
Planned Giving Office	(212) 769-5119
Discovery Tours	(212) 769-5700
*toll-free	(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
Website	http://www.amnh.org

FOR PROGRAM RESERVATIONS, PLEASE CALL (212) 769-5200

program listings

DEPARTMENT OF EDUCATION

Earthwatch at the Museum

Five lectures, starting Thursday, March 2, 7:00–8:30 p.m.

Code: ED20207L. Fee: $40 for series ($36 students, senior citizens, and Museum and Earthwatch members); $12 each ($10 students, senior citizens, and Museum and Earthwatch members).

This series is co-sponsored by Earthwatch Institute, an international nonprofit organization that promotes sustainable conservation of our natural resources and cultural heritage by creating partnerships among scientists, educators, and the public. Through public participation in worldwide research expeditions, the Earthwatch Institute funds and supports scientists, gathers data, and communicates the results, with the goal of facilitating local solutions and inspiring global citizenship. Earthwatch scientists will present their research using slides and occasionally video clips. For additional information, call 212-769-5176.

March 2 Ghana's Coastal Kingdoms: Unearthing the Historic Role of West African Coastal Peoples in Cross-Cultural Trade

March 30 Moose and Wolves of Isle Royale: The Role of Predators in Controlling Prey Populations

April 13 Religion in the Ancient Roman World: The Cult of Isis

May 11 Wings in the Mist: Protecting Cloud Forest Birds in Ecuador

June 8 Stand Vigilant-Whooping Cranes Return to Florida

Journey of the Pink Dolphins

Thursday, March 9, 7:00–8:30 p.m.

Code: ED20208L. Fee: $12 ($10 members, students, and senior citizens).

In this slide-illustrated talk, Sy Montgomery discusses her search for the enigmatic, little-studied species of freshwater pink dolphins found in the Amazon River and its tributaries. Her book *Journey of the Pink Dolphins: An Amazon Quest* will be available for sale and signing.

Wetland Flora and Biodiversity

Four Thursdays (Code: ED20209L), March 9 to March 30, 7:00–8:30 p.m. or four Mondays (Code: ED20210L), March 13 to April 3, 2:30-4:00 p.m.

Fee: $30 for series ($27members, students, and senior citizens); $12 each ($10 members, students, and senior citizens).

The full value of wetlands is just beginning to be appreciated as exciting new discoveries increase our understanding of the intricate interrelationships within these areas and of their global impact. This slide-illustrated series of lectures focusing on eastern North America will explore the nature of the vegetational diversity of lakeshores, floodplains, bogs, marshes, and seaside's, and the wetlands' key role in sustaining the web of life. William Schiller, lecturer in Botany in the department of Education, presents this series.

What's New In Geology

Two Wednesdays, March 15 and 22, 7:00-8:30 p.m.

Code: ED20211L. $20 series ($18 members, students, senior citizens); $12 each ($10 members, students, senior citizens).

Exciting major advances in geology, both theoretical and descriptive, are occurring at a rapid pace, supported, part by technology that permits geo gists to gather great amounts of dat task that was impossible just a few years ago. This slide illustrated lectu series focusses on advances in our u derstanding of plate movements, ea quakes, paleontology, mountain building, and the regional dynamics the Mediterranean, western United States and metropolitan New York. Sidney S. Horenstein, coordinator of environmental programs at the Museum, presents this series.

rangutan Odyssey

esday, March 28, 7:00 -8:30 p.m.

ode: ED20212L. Fee: $12 ($10 members, udents, and senior citizens).

enowned primatologist Birut Galdikas d primate communication specialist ancy Erickson Briggs present their search and talk about the challenges studying and rescuing orangutans in disappearing habitat. Their new book, *rangutan Odyssey*, will be available for rchase and signing.

FREE PROGRAMS

The Changing World of Tattoo: A Panel Discussion

Saturday, March 18 , 10:30 a.m.–4:00 p.m.

Kaufmann Theater

Panelists in this daylong symposium will discuss the ways in which tattooing–in terms of both artists and customers–has changed in the U. S. during the past thirty years. Who is getting tattooed and why? How has the industry itself changed and how do the backgrounds of tattooists starting out today differ from those of earlier practitioners? What cultural and social factors are creating these changes? The panelists will examine pioneers influential in the past, present, and future of tattooing.

For additional information and a program, call the Department of Education at 212-769-5176.

Youth: Exploring Roots of Violence & Pathways to Peace

Two weekends: March 11–12 & March 25–26

While recent tragedies have focused a spotlight on the national problem of youth violence, New York and other cities have been battling its effects for decades. Over two weekends, Fountain for Youth and The Interfaith Center of New York join with the American Museum of Natural History to examine the roots of youth violence and to look at strategies for creating a culture of peace. This program brings new perspectives to the current dialogue and celebrates successful efforts by young people to find alternate means of transforming their lives. Each weekend includes presentations and panel discussions that address the interrelated issues of youth, violence, culture, and spirituality. Workshops, films, and performances by storytellers, and youth and arts groups offer different visions and approaches for collaboration, conflict resolution, and action.

For additional information, please contact the Department of Education at 212-769-5176.

WALKING TOURS AND WORKSHOPS

For further information and to register, call 212-769-5200.

ANIMAL DRAWING

Eight Tuesdays, March 7–April 25, 7:00–9:00 p.m.

Code: ED20304X.Fee: $135 (materials not included). Natural Science Center. Limited to 25 persons.

Join Museum artist Stephen C. Quinn and sketch subjects such as gazelles on the African plains or timber wolves in the snow. After Museum hours, students draw from the famed dioramas, as well as from mounted skeletons, in the Halls of African Mammals, North American Mammals, North American Birds, and Ocean Life, and in the fossil mammal halls.

SPRING BIRD WALKS IN CENTRAL PARK

Nine Tuesdays (Code: ED20305X), March 28–May 23, 7:00–9:00 a.m.; or Nine Wednesdays (Code ED20306X), March 29–May 24, 7:00–9:00 a.m.; or Nine Thursdays (Code: ED20307X), March 30–May 25, 9:00–11:00 a.m.

Fee: $60. Limited to 25 persons per series.

program listings

FRONTIERS IN ASTROPHYSICS

Beauty in Physics and Cosmology

Mario Livio

March 6, 7:30 p.m., Kaufmann Theater.

When does a physicist feel that a theory of the universe is beautiful? Do aesthetic principles play a role in choosing the correct theory for the origin and evolution of the universe? These questions will be discussed in the context of the most recent astronomical findings. New data suggest that the expansion of our universe, far from slowing down, is actually accelerating! This new information in itself will influence future cosmological research in innumerable ways. But on a deeper, more philosophical level, it turns out that accelerated expansion poses a serious challenge to a "beautiful" theory of the universe.

DISTINGUISHED AUTHORS IN ASTRONOMY

The Deep Hot Biosphere

Thomas Gold

March 27, 7:30 p.m., Kaufmann Theater.

What if it is we creatures who live on Earth's surface who experience its most extreme conditions? What if most life thrives miles below the crust of Earth, under high pressure and heat? Could it be possible, for example, that petroleum originates in Earth's depths and not from compressed biological matter? For 50 years, Cornell professor emeritus Gold has been a rabble-rousing theorist. He's not always right, but he is credited with the developing the theory of a steady-state universe with being the first to understand the mechanisms of the ear. In *The Deep Hot Biosphere*, he reveals evidence supporting a subterranean biosphere and speculates on how energy might be produced in a region void of photosynthesis, discussing the ramifications of his concepts on predicting earthquakes, deciphering Earth's origins, and finding extraterrestrial life.

DEPARTMENT OF EDUCATI CHILDREN'S WORKSHOPS

Undersea Neighbors

Sunday, April 9, 10:30 a.m.–11:30 p.m

Using specimens in an interactive s children will learn about various ma animals. Age 6 –7. Cost: $10.

Bonita's Nature Book

Sunday, April 9, 10:30 a.m.–1:30 p.m.

Explore the Field to Stream exhibit t learn about nature. Ages 8–9. Cost:

Fun With Fossils

Sunday, April 16, 10:30 a.m.–1:30 p.m

Children examine fossil reproductio and real tooth specimens to uncove eating, hunting, and other behavior Age 8–9. Cost: $15.

A First Look at Chinese Brush Painting

Sunday, April 30, 10:30 a.m.–1:30 p.m

Capture the spirit of nature with bru and ink. Ages 9–10. Cost: $15.

All About Fish

Sunday, April 30, 10:30 a.m.–12:00 no

This hands-on program investigates different kinds of species of fish and how fish breathe and swim. Age 5, e child must be accompanied by one adult. Cost: $10 (child and one adult

Shinnecock Soup

Sunday, April 30, 10:30 a.m.–1:30 p.m

Children will take a tour of the East Woodland, Plains, and Northwest Co Indian Halls; grind corn, help make Shinnecock soup, hear stories, and d rate an apron to take home. Ages 8 9. Cost: $15.

Museum Spotlight

On November 22, 1969, Neil de Grasse
1 on, an 11-year-old astrophysicist-to-be,
r eived his first diploma in astronomy
f m the Hayden Planetarium. The course,
dvanced Topics in Astronomy for Young
ople," still offered at the Planetarium,
s opened up the heavens to thousands
New York City kids whose view of the
rs is obscured by the city lights.

on's own love affair with the cosmos
d begun a year earlier, when a friend
couraged Tyson "to look up" with the
of his binoculars. From the roof of his
ilding in the Bronx (the aptly named
kyview Apartments"), Tyson saw a wax-
crescent moon, replete with the
untains, valleys, and craters of the
onscape. In that night sky, he looked
ectly into his future. "I just wanted
re," an animated Tyson remembers.

s parents bought him his first telescope,
d when he outgrew that model, he
lked neighborhood dogs to save
ney for a new skypiece. Tyson's obses-
n with the stars was obvious to every-
e around him, including his
th-grade-teacher, Mrs. Kreindler, who
nt him to his first astronomy class at
e Hayden. Over the next three decades,
rough a combination of hard work,
eer will, and grace, Tyson rose from a
oughtful wide-eyed kid to academic
minence as a leader in the field of
trophysics. As the Frederick P. Rose Di-
tor of the Hayden Planetarium, Dr.
son now signs the "Advanced Topics"
loma that had inspired him as a young
an.

om the Bronx High School of Science
rough a Harvard B.A. to a Columbia
.D., Tyson blazed a course to a career in
trophysics. After a post-doctoral fellow-
ip at Princeton University's Department
Astrophysics, he obtained an appoint-
ent with the Hayden Planetarium at the
useum, while maintaining a research
aff position at Princeton. A year later, he
as promoted to Acting Director of the
ayden, and in 1996 was hired as the
ederick P. Rose Director of the Planetar-
m.

ver the past few years, much of Tyson's
me has been dedicated to the educa-
nal and scientific design of the new Rose Center for Earth and Space and the new Hayden Planetarium. The design team, including Tyson, the renowned architectural firm of Polshek Partnership, the exhibition design firm of Ralph Appelbaum Associates, Museum Trustees (including, most prominently, Frederick P. Rose), Museum President Ellen V. Futter, Executive Director of the Rose Center Jim Schmidt, and Director of Special Projects James Sweitzer, have created both an architectural and scientific masterpiece. Tyson is thrilled to have been part of this amazing project.

Tyson has that rare ability to present his work to both academic and popular audiences. He is an easy-going public speaker whose sweet nature and self-deprecating humor combine to capture an audience's attention. His scholarly work has been published in such esteemed and erudite journals as *Astronomy and Astrophysics* and the *Astronomical Journal*. As if that weren't enough, his first book, *Merlin's Tour of the Universe*, has been translated into five languages, including Japanese and German. All the while Tyson writes two monthly columns on astronomy–one for *Natural History* and one for *Stardate Magazine*.

Tyson's latest book, *The Sky Is Not The Limit: Adventures of an Urban Astrophysicist*, chronicles his life, from his days as a rooftop astronomer in the Bronx through his years of graduate training to his work at the Planetarium. The book's fine writing, sharp wit, and important messages make it an absorbing read.

There is, however, a sobering side to Tyson's personal narrative–he is, after all, one of only 16 black astrophysicists (out of 6000) worldwide. The sky might not be the limit, but as Tyson's own terrestrial experiences demonstrate, dreams can be frustrated by what he calls the "emotional tax" of ignorance. Tyson has had to navigate his fair share of racist roadblocks and humiliations–be they lowered academic expectations, insults from store merchants, or the many unwarranted late-night highway stops by law enforcement. As the speaker at his Ph.D. convocation ceremony at Columbia University, Tyson affirmed that for him "to be an astrophysicist became a path of most resistance." Tyson told his audience that "I wanted to do with my life what people of my skin color were not supposed to do." All his life the 6'2" physically fit Tyson had been perceived as an athlete, not an academic. Tyson believes he has an important role to play in altering this social fabric by "being as good a scientist and educator as I can be." "Perhaps one day when people think of scientists, they'll think of black people," Tyson hopes. "And that will be an important step in the explosion of stereotypes."

Now that the Rose Center has opened to rave reviews and huge crowds, Tyson is looking forward to getting back to his world of telescopes, equations, predictions, and theories of the cosmos. Tyson's academic work focuses on the study of several questions. Foremost, Tyson is interested in confirming whether the universe is expanding or accelerating–that is, is the expansion of the universe slowing down by force of gravity (expansion), or is the universe not slowing down as rapidly as it should because some unknown force is counteracting the force of gravity (acceleration)?

As you walk down the Heilbrunn Cosmic Pathway in the new Rose Center, each of your steps corresponds with the forward passage of cosmic time. Spectacular telescopic images of distant objects line the walkway. At the base of the walkway, which runs over 100-yards-long, is a human hair, the width of which is meant to symbolize the amount of time human's have inhabited the universe. Walking through the new Rose Center, Tyson jokes that the Museum will have to have counselors on-hand to console those who are overwhelmed by their cosmic insignificance. But that insignificance is just an illusion to Tyson, who writes in *The Sky is Not The Limit* that "each of our body's atoms can be traced to the big bang and to the thermonuclear furnace within high-mass stars. We are not simply in the universe, we are part of it. We are born from it."

—**Michael Yudell, AMNH**

museum notes

DIG DAYS

Have you ever dreamed of discovering dinosaurs?

Here is the chance you've been waiting for. Come follow in the footsteps of the world-famous "bone hunters" at the American Museum of Natural History and discover how ancient fossils can unlock the secrets of the dinosaurs. Through hands-on experience and scientific investigation, our staff will take you on a behind-the-scenes journey–from fossil discovery to Museum exhibit. By learning to identify different types of fossils, you will see how each one has a story to tell. During the five days, campers will visit science labs and special exhibitions, and have the opportunity to meet some of our paleontology staff.

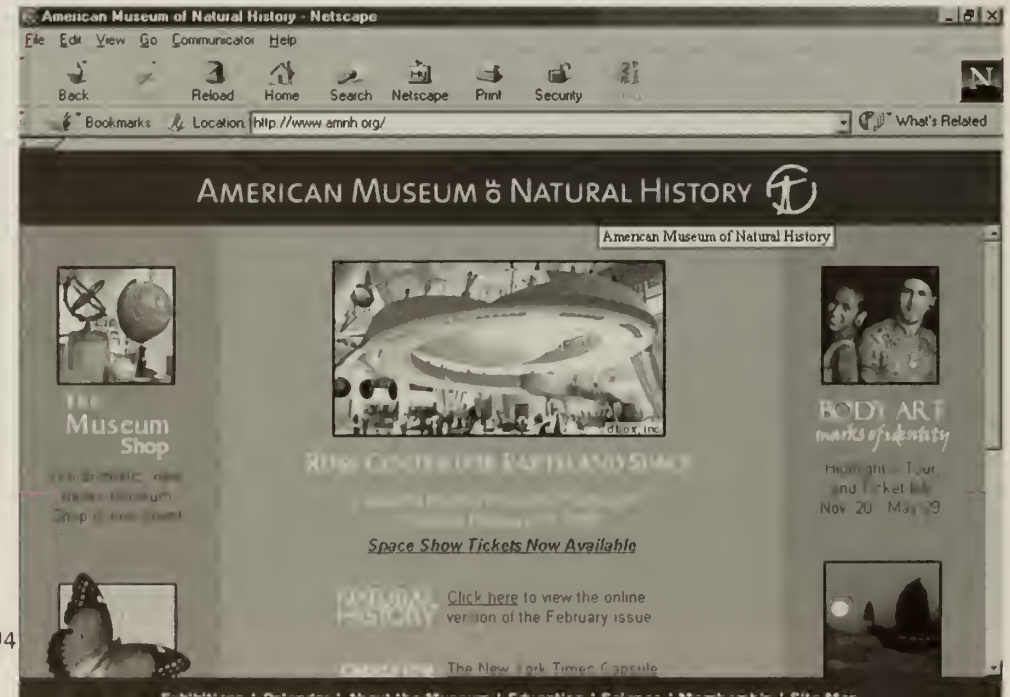
Destination: Planet Earth

Wish you could journey to the center of the earth? Or look back at our planet from deep space?

Join us as we investigate the planet we call Earth. This program looks at Earth as a huge "living" planet, constantly moving and changing. Did you know that the earth experiences over 1,000 earthquakes every day? Campers will examine the forces that not only formed our planet but continue to effect and reshape our world. Through hands-on activities and visits to the new Rose Center for Earth and Space and the Gottesman Hall of Planet Earth, we'll explore the wonders of planet Earth.

NEW AMNH WEB SITE

The Museum's recently redesigned Web site allows cyber-visitors to learn about exciting exhibitions and programs, take virtual tours, purchase tickets online, register for membership, and choose from an array of retail merchandise. They can also tour the Museum's collections, accompany scientists on expeditions, and much more. Already receiving more than 193,000 hits a day, the coming year will see the Web site expand to include another live web-cam, new bulletin boards, and enhanced e-commerce opportunities.



Museum scientists on a dig, AMNH

Dig Days Paleontology Camp

Session I: June 26–30

Session II: July 10–14

9:00 a.m.–4:00 p.m.

Destination: Planet Earth Earth Science Camp

Session III: July 17–21

Session IV: August 21–25

9:00 a.m.–4:00 p.m.

Both Dig Days and Destination: Planet Earth are new five-day camp programs for children in grades 4 through 7. The camps include hands-on investigations, behind the scenes tours, and visits with Museum scientists. Children are dropped off at the Museum at 9:00 am and picked up at 4:00 pm. The fee for each five day camp session is $350.

Our goal is to inspire young people to discover the wonder and adventure in science study.

Please call Ellen Silbermann, Program Coordinator at 212/769-5079.

Discovery Tour Travelers Provide for the Museum's Future and for Their Own Retirement

Bob and Marie Bergh love to travel. Since their first trip with the Museum in the early 80s, they have participated in eight Discovery Tours to destinations as diverse as the British Isles, the Black Sea, Scandinavia, the Caribbean, Greenland, Antarctica, the North Pole, the Middle East, India, and Southeast Asia.

Originally from Norway, Bob grew up on sailboats. Immigrating to the United States as a young man, he became an engineer at Union Carbide in New Jersey, where one of his proudest achievements was the development of oxygen masks that provided safe protection in combat and rescue situations. A career on land notwithstanding, over the years Bob has frequently chosen seafaring vacations, traveling by ship to many parts of the world he wanted to see.

For her part, Marie grew up in New Jersey and has fond memories of visiting the Museum as a child. Her love of travel grew out of her experiences as a commissioned officer in the U.S. Army and the U.S. Public Health Service. During World War II, she served in New Guinea, the Philippines, and the Admiralty Islands. Subsequently, she did tours of duty in various parts of the United States and with the Agency for International Development in Pakistan.

As they have enjoyed exploring the world on the Discovery Tours, Bob and Marie have increasingly come to appreciate the significance of the Museum's work. Therefore, when they retired and moved to Florida from New Jersey, they continued to maintain their Museum membership. In addition, they recently decided to provide for the Museum's future through a Charitable Gift Annuity. "We wanted to give to the Museum, especially because of what the Museum gives to children and young adults. We wanted to foster that and also have something for ourselves. With a Gift Annuity, we could help the Museum and add to our income."

A Gift Annuity is a contract between the Museum and the donor. In consideration of a contribution to the Museum of $5,000 or more, one or two people receive quarterly payments, part of which are tax-free, for the rest of their lives. These payments are fixed, regardless of economic conditions, and the rates are based on the annuitants' ages at the time of the gift. In addition to receiving annuity income, the donors can claim a charitable income tax deduction on a good portion of the amount contributed. Gift Annuities can be funded with cash or securities, and capital gains taxes are avoided when appreciated, low-yield stock is used to fund the gift.

A Gift Annuity is just one of the gift plans offered by the Museum that can benefit donors and their families while providing for the Museum's future. For more information about life income gifts, bequests, and other creative giving techniques, please call the Planned Giving Office of the American Museum of Natural History at (212) 769-5119 or toll-free at (800) 453-5734.

Hair Styles and Body Art of the Mende and Mangbetu Peoples

Saturday, April 1, 3:00–4:00 p.m.

Enid Schildkrout, curator of Anthropology and curator of the current exhibition *Body Art: Marks of Identity*, will discuss Hair Styles and Body Art of the Mende and Mangbetu Peoples, with William Seigman, curator of African Art, Brooklyn Museum of Art, on Saturday, April 1, at the Museum for African Art, 593 Broadway.

Tickets included with general admission. For more information, call the Museum for African Art at 212-966-1313, ext. 112.

Rotunda
AM. MUS. NAT. HIST. LIBRARY
Received on: 03-07-2000

Museum Hours

Exhibition Halls

Mon.–Thurs.	10:00 a.m.–5:45 p.m.
Fri. & Sat.	10:00 a.m.–8:45 p.m.
Sun.	10:00 a.m.–5:45 p.m.

The Museum Library

Tues.–Fri.	11:00 a.m.–4:00 p.m.

Museum Dining

Cafe on 4

Sun.–Thurs.	11:00 a.m.–4:45 p.m.
Fri.–Sat.	11:00 a.m.–7:45 p.m.

Ocean Life Cafe

Sun.–Thurs.	11:00 a.m.–4:45 p.m.
Fri.–Sat.	11:00 a.m.–7:45 p.m.

77th Street Snack Bar

Sun.–Thurs.	11:00 a.m.–4:30 p.m.
Fri.–Sat.	11:00 a.m.–4:30 p.m.

Natural Science Center

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.

The Museum Shop

Mon.–Thurs.	10:00 a.m.–5:45 p.m.
Fri. & Sat.	10:00 a.m.–7:45 p.m.
Sun.	10:00 a.m.–5:45 p.m.

Parking

The visitor parking garage is open. For public transportation and local parking information, call (212) 769-5200. The Museum is well served by public transportation.

AMERICAN MUSEUM OF NATURAL HISTORY
MEMBER

Membership Department,
Central Park West @ 79th Street
New York, New York 10024-5192
www.amnh.org

Central Reservation Cou

Program Name/Date # Membe

_____

_____

_____

Total $ _____

Mr./Mrs./Miss/Ms. _____

Address _____

City _____ State _____ Zip _____

Telephone (Day) _____ (Evening) _____

Membership No. _____

❑ Check ❑ Am.Ex. ❑ Visa ❑ Master Card

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.

Entrances

During Museum hours, visitors can enter the building through the 77th Street entrance, or the first- and second-floor Roosevelt Memorial Hall entrances (79th Street and Central Park West).

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.

rotunda

Vol. 25 No. 4 April 2000

Members' Newsletter

Seminars on Science

QH70
U52N5
v. 25
no. 4
Apr 2000

American Museum of Natural History

teaching teachers

Two years ago, the Museum assumed a strong leadership role in national science education with the launch of its National Center for Science Literacy, Education, and Technology. As part of the Museum's Department of Education, the National Center was established to address the urgent need for increased science literacy across the nation, creating programs and materials that connect people of all ages nationwide to the unparalleled resources of the Museum.

Central to this initiative is the National Center's Seminars on Science program, a four-year project created to develop on-line science courses for teachers. Bridging the worlds of science and education through courses co-authored by Museum scientists and the National Center's staff, the program provides teachers with unprecedented access to authentic science investigations. "We hope this 'hands-on' experience with real science will stir in teachers the kind of passion for and excitement with the world of science that the scientists themselves possess–a passion that can then be passed onto their students," says Nancy Hechinger, director of the National Center.

These courses will be offered for the first time this spring through Connected University, the professional development arm of Classroom Connect, the largest provider of K–12 internet resources. Making use of both the latest advances in user-friendly technology and the Museum's vast scientific assets, the program provides teachers with the knowledge and resources necessary to meet the highest national, state, and local educational standards.

Like any students, teachers first need to be engaged and excited by a topic. With its professional scientists and the access to on-going scientific investigations they provide, the Seminars on Science series will engage teachers as adult learners who learn by doing. The program seeks to give teachers, perhaps for the first time, a rich experience doing science the way scientists do it. All the seminars in the program revolve around authentic, current investigations of the participating scientists.

And for their part, all of the Museum curators and scientists involved–each of whom is enthusiastic about the importance of the program–have been incredibly generous with their time, knowledge, and resources.

The first Seminar on Science series, set to launch this spring, will include the following three courses: Why Are There No More Woolly Mammoths?, Diversity of Fishes, and The Study of Spiders.

The Woolly Mammoth seminar will consider the question: What caused the Woolly Mammoth's extinction? Museum Curator Ross MacPhee has an hypothesis about the cause. He and his postdoctoral fellow Alex Greenwood will share their research and the unanswered questions that remain. In the seminar, MacPhee will ask the teachers to try to imagine what the world was like 20,000 years ago as they weigh the three contending extinction theories. In the process, they will follow in his "footsteps," using many of the tools and interdisciplinary methods available.

In the Diversity of Fishes seminar, Curator of Ichthyology Melanie Stiassny along with her post-doctoral fellows Marcelo de Carvalho and Adriana Aquino seek to answer a seemingly simple question: What is a fish? The course covers the work of all three ichthyologists and provides in-depth connections to the science tools and knowledge involved in their fascinating current investigations. During the course, teachers will become conversant with cladistics, the primary method used by Museum systematic biologists.

The Study of Spiders seminar teachers will work as arachnologists. Joining research scientist Vladimir Ovtsharenko under the auspices of Curator of Entomology Norman Platnick, teachers will learn the classification and systematics of spiders. They will learn collection and identification techniques that they can do in their own backyard and schoolroom. These activities are accessible to all, illustrated by an important fact revealed in the course: you are never more than four feet from a spider.

Cover: Ross MacPhee with Mammoth tusk; photo by Clare Flemming. Melanie Stiassny in the lab; photo by Michelle Anastasia, AMNH. Adriana Aquino at the microscope; AMNH. Vladimir Ovtsharenko collecting in the field; photo by Tina Gaud, AMNH. Above: MacPhee on Wrangle Island, Siberia; photo by Clare Flemming. Above Right: Mammoth skull.

rotunda

ISSN 0194-6110
Vol. 25, No. 4, April 2000

John Davey, Editor
Rosemary Caulk, Director of Membership
Lynn DeBow, Vice President for Development and Membership
Ellen V. Futter, President
Anne Sidamon-Eristoff, Chairman

Rotunda is published monthly, except for a combined issue in July/August, by the Membership Office of the American Museum of Natural History, Central Park West @ 79th Street, New York, N.Y. 10024-5192. Telephone: (212) 769-5606. Web address: www.amnh.org. Museum membership of $45 per year and up includes a subscription to *Rotunda*.

©2000 American Museum of Natural History.
Periodical postage paid at Rutherford, N.J., and at additional mailing offices. Postmaster: Please send address changes to *Rotunda*, Membership Office, AMNH, at the above address. Printed in the USA.

Like any students, teachers first need to be engaged and excited by a topic.

The courses will be offered on-line asynchronously, so that teachers can participate at their own convenience wherever and whenever they want–an advantage that on-line courses have over traditional, classroom-bound counterparts. The virtual classroom also allows teachers from around the country to participate. The Connected University software platform provides teachers with everything from a discussion board called the Forum, where they can interact with one another and the course facilitators, to the viewing and virtual manipulation of specimens and slides. These visuals offer another advantage over face-to-face classes. They will use 3-D models, scanning electron microscope slides, and PCR slides–all of which are completely inaccessible to most professional development courses.

The goal is that these courses will be a window into how scientists know what they know, inspiring a group of teachers to inspire a whole generation of future science lovers.

Teachers interested in the program can enroll through Classroom Connect's Connected University (http://cu.classroom.com) individually as general learners, or a school or school district can obtain a site-license for all its teachers over a one-year period.

The courses are for K-12 teachers and are designed to meet the highest professional qualification standards.

For more information on the Seminars on Science program, please email center@amnh.org.

program listings

LECTURE SERIES EXPLORES HOW THE NEW BIOLOGY IS TRANSFORMING MEDICINE

Revolutionizing Medicine in the 21st Century: Impact of Genetics and Molecular Biology

Starting Tuesday, April 11, 7:00-8:30 p.m.

To celebrate New York's pioneering medical researchers, the Museum is joining with leading area medical institutions and NYC & Co. to present a series of six lectures highlighting cutting-edge medical research and exploring its profound impact on disease and health.

The series will be kicked off by Dr. Harold Varmus, the new CEO of the Memorial-Sloan Kettering Cancer Center. As the former head of the National Institutes of Health, Dr. Varmus is uniquely qualified to lead a tour of The Human Genome Project, the global effort that is unlocking a treasure trove of information in the human genetic code. The second lecture examines our growing understanding of the fascinating, complex biology of the cell, while in the third session a distinguished panel will investigate the provocative, far-reaching ethical and legal issues arising from genetic medicine.

Fee: $50 for series ($45 members, students, senior citizens); $12 ($10 members, students, senior citizens) for single lecture. To register call 212-769-5200.

April 11

How Genetics is Transforming Medicine

Dr. Harold E. Varmus, President & CEO, Memorial-Sloan Kettering Cancer Center, former Director of the National Institutes of Health (NIH)

April 18

The Empowered Cell

Dr. Gunter Blobel, winner of the 1999 Nobel Prize and Professor of Cell Biology, Rockefeller University

Gunter Blobel

April 25

Ethical and Legal Implications of Genetic Medicine: Lecture and Panel

Dr. Bartha M. Knoppers, Faculty of Law, University of Montreal

May 9

Cancer: New Technologies, New Directions

Dr. Karen Antman, Director of Columbia's Herbert Irving Comprehensive Cancer Care Center and Chief of the Division of Medical Oncology

May 16

Gene Therapy Enters Adolescence: Progress and Issues

Dr. Ronald Crystal, Weill Medical College of Cornell University

May 23

Generating New Cells, New Organs: Stem Cell Research and Application

Dr. Samuel Waksal, President and CEO, ImClone Systems, Inc.

DEPARTMENT OF EDUCATION

Native Cultures of the Americas: A New Generation

April Weekend Family Programs, 1:00 p.m. to 5:00 p.m.

Youth from the native cultures of the Americas will be the focus of April's weekend programs.

Saturday and Sunday, April 1 and 2

Taking Responsibility for Culture

Performance: Cetiliztli Nauhcampa Quetzalcoatl

1:00 p.m. & 4:00 p.m.

A newly organized Mexican dance group based in New York City will share the history and traditions of their ancestors from the Americas.

Lecture: Jennie Luna "Ixcana"

2:00 p.m.

Jennie Luna, a graduate student in Education at Columbia University, discusses her plan to create a charter school for indigenous people in California.

Film: *Ju-Nam*

2:45 p.m.

"Ju Nam" in the Maya-Quiche language means "all together." Urban youth from Chicago present straightforward views about what it takes to maintain their cultural identities.

Film: *Jim Northrup: With Reservations*

3:00 p.m.

Jim Northrup, Anishinaabe/Ojibwe/Chippewa writer and storyteller from the Fond Du Lac Reservation, presents pointed views of American life.

Saturday and Sunday, April 8 and 9

Learning to Carry the Native Heritage

Performance: Rankokus Eagle Dancers (Saturday only)

Full Moon, an exhibition of photographs from, the *Apollo* missions to the moon, is now on display in the Rose Center Gallery.

Image: NASA/Digital Image © 1999 Michael Light Studio

1:00 p.m. & 3:15 p.m.

Youth from the Rankokus Indian Reservation in New Jersey perform various tribal dances.

Performance: Story Gifting (Sunday only)
1:00 p.m. & 3:15 p.m.

Joe Cross (Caddo) and Donna Couteau (Sac and Fox) stage Native American stories from Caddo and other tribal narratives.

Film: *E Ola Ka `Olelo Hawai'i*
2:00 p.m.

Founding members and others tell the story of the formation of the Punana Leo pre-schools in 1983.

Lecture: Connecticut's Other Indians
2:30 p.m.

Patricia Benedict is Abenaki and has lived in Connecticut for most of her life, where she is a community advocate promoting native youth and family programs.

Saturday and Sunday, April 15 and 16

Being Native American

Performance: Nitchen All Nations Dance Group

1:00 p.m. & 3:45 p.m.

"Nitchen" in the Lenape language means "our children." The Nitchen All Nations Dance Group performs powwow social dances representing the youths' diverse native heritages.

Continued on Page 10

Rapa Nui Body Art

Wednesday–Friday, April 19–21

11:30 a.m., 1:30 p.m., and 3:00 p.m.

In conjunction with the current exhibition, *Body Art: Marks of Identity,* and the program *Native Cultures of the Americas: A New Generation*, five artists and performers from Easter Island–known as Rapa Nui by the native Polynesian peoples of the island–demonstrate and explain the process and materials used for *takonas*, or body designs. All presentations will include traditional and contemporary music and dance.

Wednesday, April 19

11:30 a.m: Umu Tahu: Curanto, a Blessing Ceremony
1:30 p.m: Body Painting: Preparation, Explanation, and Demonstration
3:00 p.m.: Body Designs for Sailors

Thursday, April 20

11:30 a.m.: Builders of Ancient Dwellings
1:30 p.m.: Farmers
3:00 p.m.: Fishermen

Friday, April 21

11:30 a.m.: Legend of the Long Ears People
1:30 p.m.: Moai Sculptors
3:00 p.m. Warriors

The Rapa Nui artists and performers will also participate in a special cross-cultural exchange weekend for the program, Native Cultures of the Americas: A New Generation. See Saturday and Sunday, April 22 and 23.

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 information is also available on the Museum Web site at HYPERLINK http://www.amnh.org/education.

The American Museum of Natural History wishes to thank the May and Samuel Rudin Family Foundation, Inc., the Tolan Family, and The Leonhardt Foundation for their support of these programs.

Photo: AMNH, C. Daniel Dawson

Rapa Nui Body Artists

members' programs

MEMBERS' FISHING EXPEDITION

Saturday, May 20, 9:00-5:30 p.m.

Fish the waterways of New York while you learn about local marine life and environmental issues. Dave Karrmann, biologist and naturalist from the Museum's education department, will accompany the group.

Our privately chartered ninety-foot supercruiser sails from Sheepshead Bay, Brooklyn, and will supply everything that you will need to enjoy the day: rods, reels, and bait. Of course, if you have not fished before, the experts will give you instruction.

Optional roundtrip bus service is available from the Museum to Sheepshead Bay. Our charter boat departs promptly from the dock at 10:00 a.m.

Program Code: MM5-1A Fee: $68, including roundtrip bus transportation from the Museum to Sheepshead Bay. Program Code MM5-1B Fee: $55, provide your own transportation and meet us at Pier 6, Sheepshead Bay.

Dorothy B. VIII

WORKSHOP

Earth and Space, The Board Game

Saturday, May 13, 2 sessions, 10:30 a.m. and 2:30 p.m.

Take a special tour of the spectacular new Rose Center for Earth and Space, discovering fun facts about galaxies, stars, and planets as you go. After the tour, using your new know-how, create your very own fun Earth and Space Board Game, complete with hand-sculpted galactic game pieces.

With the expert guidance of artist and former director of the Museum's Fossil Reproduction Department, Pamela Popeson, you will leave with your very own universally fun game.

Children 7 & older. Program Code: MM5-2A (10:30 a.m. program) or MM5-2B (2:30 p.m. program). Fee: $22. Room 319.

PREVIOUSLY LISTED LECTURES

Wild Minds: What Animals Really Think

Tuesday, April 4, 7:00 p.m.

Do animals think? Do they have feelings? Marc Hauser, professor of psychology at Harvard and a preeminent authority on animal cognition, answers these questions and posits other, even more challenging ones. In his lecture, he will explain how insights from evolutionary theory and cognitive science have begun to revolutionize our understanding of animal minds.

Kaufmann Theater. Code: MM4-1. Cost: $10 members; $12 non-members.

From Bugs to Bison: a Grizzly's View of the Greater Yellowstone

Tuesday, April 25, 7:00 p.m.

The threatened grizzly bear has been the focus of extensive research in Yellowstone National Park for the past 25 years. David Mattson, one of North America's foremost experts on this imperiled species, has been involved in investigating grizzly behavior and habitat relationships for the past 17 years and will present a slide talk on recent scientific discoveries about this inventive, intelligent, and often surprising animal.

Kaufmann Theater. Code: MM4-2. Cost: $10 members; $12 non-members.

PERFORMANCE

The Story of Inanna–Queen of Heaven and Earth

Friday, April 28, 7:00 p.m.

Through voice, gesture, and song, renowned storyteller Diane Wolkstein brings to life the oldest known recorded story: the 4,000-year-old epic of Inanna, the Sumerian goddess of love and fertility. Deciphered from cuneiform tablets dating back to 1900 BCE, this inspiring myth recounts the emergence of the goddess into womanhood, her courtship and marriage, her descent, and her eventual rebirth. Kaufmann Theater. Code: MM4-3. Cost: $15 members; $20 non-members.

WALKING TOURS

Exploring the Palisades

Saturday, April 8, 10:00 a.m.–3:00 p.m.

Getting there is half of the fun! Our four-mile trek begins with a walk over the Hudson River via the George Washington Bridge. Study the features of the Palisades with Sidney Horenstein, geologist and coordinator of the Museum's environmental programs. Meet in front of the bus terminal at 178th Street. For the not-so-ambitious, bus transportation is available for the return trip over the bridge. Code: MM4-4. Cost: $32–members only.

ADULT WORKSHOP

Galactic Mosaics

Saturday, April 29, 1:30–4:30 p.m.

Taking their inspiration from the exciting new Rose Center for Earth and Space, participants will build their own mosaic panel with ceramic tile on a wood board. At the end of the day, you will have your own 8" X 10" work of art to take home.

Pamela Popeson, artist and former director of the Museum's Fossil Reproduction Department will teach this fascinating workshop. Room 319. Code: MM4-5. Cost: $35–members only.

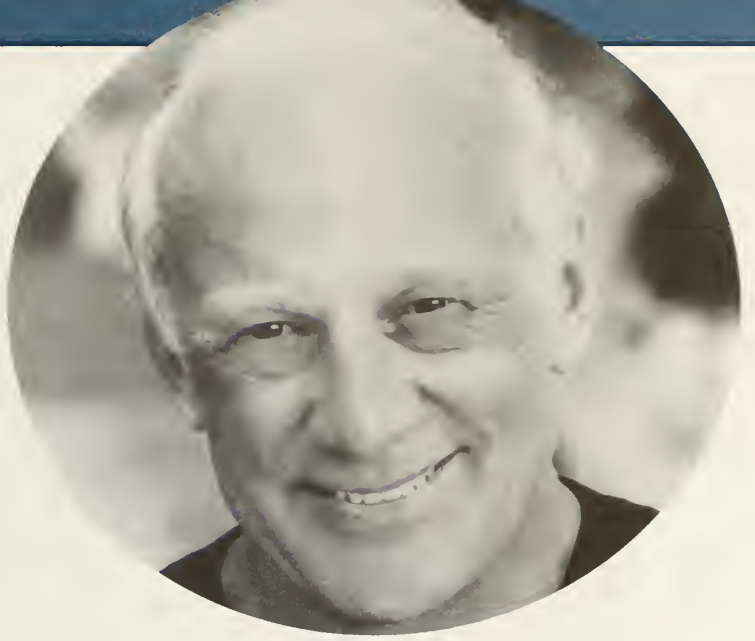


Photo: Lazlo

Special Members' Program

An Evening with Buzz Aldrin

Thursday, May 18, 7:00 p.m.

Buzz Aldrin, the second man to walk on the moon and one of the world's most famous astronauts, will discuss his views of the future of the space program, with particular focus on civilian space exploration.

In 1963, Aldrin was selected as one of the United States' first astronauts, and by 1966 he had established a new record for extra-vehicular activity in space on the *Gemini XII* orbital flight mission. Perhaps most incredible and memorable of all was Aldrin's July 20, 1969 history-making trip to the Moon, where he and crewmate Neil Armstrong placed humankind's first footsteps on another world.

Thirty years ago, as *Apollo 11* made that "giant leap for mankind," many believed a new age of space exploration was dawning. Experts predicted that before the 1970s were out, the United States would have a lunar base and would be running regular piloted missions to Mars.

But as we begin the new millennium, the space program seems adrift, lacking both a clear mission and strong public support.

Buzz Aldrin heads a team that has developed a non-profit organization called ShareSpace. ShareSpace's mission is the creation of new ways to share the space exploration experience among all Americans, while simultaneously stimulating private–sector space activities.

ShareSpace envisions Earth-orbiting ships capable of carrying up to 100 people, combined with clusters of orbiting "hotel" modules. According to Aldrin, it is as simple as wrapping an airplane around existing rocket technology. The plan would have wannabe astronauts paying approximately $10 to enter a sweepstakes, qualifying them for various prizes, including a trip in a MiG-25 to the edge of space.

Join us for an out-of-this-world journey into space travel's past, present, and exciting future with one of the few humans who have left "footprints" in the stars.

Aldrin's new novel, *The Return* (Forge, $25.95), co-written by John Barnes, is an extraordinary thriller about humankind's fascination with space exploration and will be available for purchase and signing after the event.

Main Auditorium. Code: MM5-3. $12 members; $15 non-members.

april

Current Exhibits

Body Art: Marks of Identity
November 20–May 29
Capturing Time: The New York Times Capsule
Through April 30
The Butterfly Conservatory
Through April

Saturday **1**
Native Cultures of the Americas
Weekend Family Programs
1:00–5:00 p.m.

Sunday **2**
Native Cultures of the Americas
Weekend Family Programs
1:00–5:00 p.m.

Monday **3**

Tuesday **4**
Wild Minds: What Animals Really Think
Member Lecture
7:00 p.m.

Wednesday **5**

Thursday **6**

Friday **7**

Saturday **8**
Exploring the Palisades
Member Walking Tour
10:00 a.m.–3:00 p.m.
Native Cultures of the Americas
Weekend Family Programs
1:00–5:00 p.m.

Sunday **9**
Native Cultures of the Americas
Weekend Family Programs
1:00–5:00 p.m.

Monday **10**
The Runaway Universe
Frontiers in Astrophysics Lecture
7:30 p.m.

Tuesday **11**
Revolutionizing Medicine
Educations Lecture Series
7:00–8:30 p.m.

Wednesday **12**

Thursday **13**

Friday **14**

Saturday **15**
Dinosaur Weekend
1:00–4:00 p.m
Native Cultures of the America
Weekend Family Programs
1:00–5:00 p.m.

Sunday **16**
Dinosaur Weekend
1:00–4:00 p.m
Native Cultures of the America
Weekend Family Programs
1:00–5:00 p.m.

Monday **17**
The Apollo Odyssey
Distinguished Authors in Astronom
Lecture
7:30 p.m.

Tuesday **18**
Revolutionizing Medicine
Educations Lecture Series
7:00–8:30 p.m.

Wednesday 19
Rapa Nui Body Art
Education Program
11:30 a.m., 1:30 p.m., and 3:00 p.m.

Thursday 20
Rapa Nui Body Art
Education Program
11:30 a.m., 1:30 p.m., and 3:00 p.m.

Friday 21
Rapa Nui Body Art
Education Program
11:30 a.m., 1:30 p.m., and 3:00 p.m.

Saturday 22
Native Cultures of the Americas
Weekend Family Programs
1:00–5:00 p.m.

Sunday 23
Native Cultures of the Americas
Weekend Family Programs
1:00–5:00 p.m.

Monday 24

Tuesday 25
From Bugs to Bison: a Grizzly's View of the Greater Yellowstone
Member Lecture
7:00 p.m.
Revolutionizing Medicine
Educations Lecture Series
7:00–8:30 p.m.

Wednesday 26

Thursday 27
Window to the Universe
Rose Center Documentary
8.p.m., Channel Thirteen
New York Microscopical Society
7:00–10:00 p.m.

Friday 28
The Story of Inanna-Queen of Heaven and Earth
Member Performance
7:00 p.m.

Saturday 29
Galactic Mosaics
Member Adult Workshop
1:30–4:30 p.m.
Discovery Room
12–4:30 p.m.

Sunday 30
Discovery Room
12–4:30 p.m.
Museum Magic:Time Capsule

Phone Numbers at Your Fingertips

Museum Information	(212) 769-5100
Membership Office	(212) 769-5606
Planetarium Information	(212) 769-5900
Members' Birthday Parties	(212) 769-5154
Education Department	(212) 769-5304
Planned Giving Office	(212) 769-5119
Discovery Tours	(212) 769-5700
*toll-free	(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
Website	http://www.amnh.org

For program reservations, please call (212) 769-5200

program listings

APRIL WEEKEND FAMILY PROGRAMS

(CONTINUED FROM PAGE 5)

Film: *American Cowboys*

2:00 p.m.

Introduced by the filmmakers, this is the story of two legendary cowboys from Oregon in the early 1900s: a Nez Perce Indian named Jackson Sundown and George Fletcher, an African American.

SATURDAY AND SUNDAY, APRIL 22 AND 23

Where We Have Been

Saturday, April 22

James Singer, Tewa, Santa Clara Pueblo, NM
1:00 p.m.

Mr. Singer is a former Lieutenant Governor of Santa Clara Pueblo and retired senior designer with the Los Alamos National Laboratories in New Mexico. He will share ancestral Tewa stories and songs.

Shannon Rothenberger, Ojibwe
1:30 p.m.

Rothenberger, a writer and artist born in New York City, will discuss her continuing discovery of the history of her people from North Dakota.

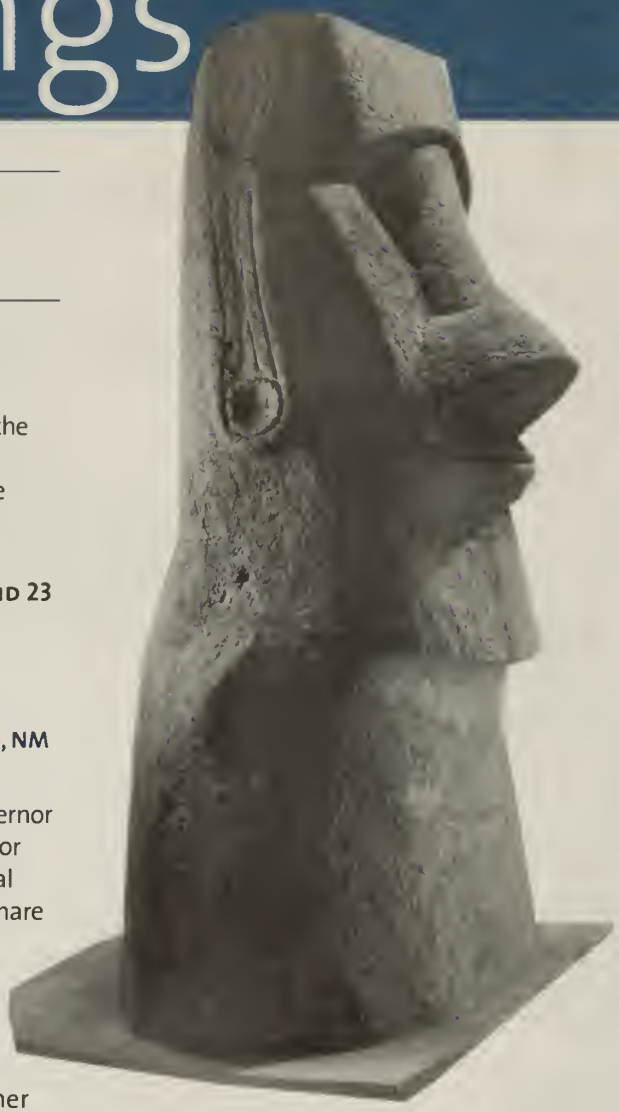
Performance: Songs and Dances from Easter Island
2:00 p.m. & 4:00 p.m.

Five artists and performers from Easter Island present the oral history and culture of the peoples of Rapa Nui, including traditional *kai kai* (string games and chants), and contemporary songs and dances.

Irwin Wesley, Northern Ontario James Bay Cree

3:00 p.m.

A young professional working in human services in New York City relates the knowledge of his Cree ancestors .



Plaster Cast of Easter Island Statue

Juanita Velasco, Maya
3:30 p.m.

A Mayan weaver from Guatemala, Ms. Velasco is a cultural interpreter at the National Museum of the American Indian. She will bring her loom and weave while telling stories about her homeland.

Where We Are Today

Sunday, April 23

Randy Redroad, Cherokee
1:00 p.m.

Mr. Redroad, an award-wining filmmaker and storyteller, will share his musical gift of flute-playing.

James Singer, Tewa, Santa Clara Pueblo, New Mexico
1:30 p.m.

See Saturday, April 22 program.

Performance: Songs and Dances from Easter Island
2:00 p.m. & 4:00 p.m.

See Saturday, April 22 program.

Christina Bryant, Cherokee/Shinnecock
3:00 p.m.

An artist and storyteller, Ms. Bryant will tell a story and discuss the challenge of living a cultural life in an urban environment.

William Vargas, Tungurahua, Ecuador
3:30 p.m.

A cultural interpreter for the National Museum of the American Indian tells stories of his homeland, Ecuador.

EDUCATION PROGRAMS:

Life in the 18th Century

Tuesday, May 2, 7:00–8:30 p.m. Fee: $12 ($10 members, students, senior citizens).

The world in 1800 was full of drama and creativity. Europe basked in its assumed superiority; the United States set new standards in government and freedom; Asia, mysterious and splendid, seemed more fascinating than ever. Olivier Bernier, author and historian, presents the concepts and events that shaped life in the era.

Dear Bunny, Dear Volodya: **Friendship and the Feud**

Thursday, May 4, 7:00–8:30 p.m. Fee: $12 ($10 members, students, senior citizens).

Dramatic dialogue adapted from the letters of Edmund Wilson and Vladimir Nabokov by Terry Quinn. The play is based on the 30-year long exchange of letters between one of America's pre-eminent literary and social critics, Edmund Wilson, and the Russian emigre author, Vladimir Nabokov.

Peoples of the Hudson River Valley

Three Wednesdays, starting May 10, 7:30-9:00 p.m. Fee: $25 for series ($22.50 Museum members, students, and senior citizens); $12 each ($10 Museum, students, and senior citizens).

This slide-illustrated series by Robert S. Grumet examines the archaeology and history of indigenous peoples along the Hudson River. Native American life in each region, from the mouth of the river to its headwaters, and what is revealed about pre-Columbian life in the New York metropolitan area is reconstructed through archival records, archaeological materials, and oral traditions.

From the earliest archaeological remains to the first contacts with European explorers, this series is an overview of our region's life.

Robert S. Grumet is an ethnologist and archaeologist of the Mid-Atlantic Region, National Park Service, and the author of *Historic Contact: Indian People and Colonists in Today's Northeastern United States in the 16th through 18th Centuries.*

New York Modern: The Arts and the City

Wednesday, May 11, 7:00–8:30 p.m. Fee: $12 ($10 members, students, senior citizens). Program Code: ED20216L.

Peter M. Rutkoff discusses the impressive collective legacy of New York's artists over the past five decades. He will explore how the varied features of the urban experience in New York inspired the works of such artists as Isadora Duncan, Alfred Stieglitz, Georgia O'Keeffe, Eugene O'Neill, Duke Ellington, Elia Kazan, Miles Davis, John Coltrane, Jackson Pollock, Merce Cunningham, Allen Ginsberg, Arthur Miller, James Baldwin, and Diane Arbus, among the many who shaped twentieth-century American culture.

The book *New York Modern,* by William B. Scott and Peter M. Rutkoff, will be available for purchase and signing.

Medicine Quest: In Search of Nature's Healing Secrets–An Ethnobotanist Searches for New Medicines in the Amazon Rain Forest

Wednesday, May 11, 7:30–9:00 p.m. Fee: $12 ($10 members, students, senior citizens).

In this illustrated talk, Mark J. Plotkin goes beyond *Tales of a Shaman's Apprentice*, his critically acclaimed exploration of the Amazonian jungles that has become a classic of its genre, to discuss where humanity might find new medicines for intractable diseases like AIDS, cancer, and diabetes. Plotkin highlights discoveries that are already producing stunning leads in the laboratory: painkillers from the skin of rain-forest frogs, anticoagulants from leech saliva, and antitumor agents from snake venom.

This entertaining weave of medicine, ecology, ethnobotany, history, exploration, and adventure will thrill scientists, naturalists, adventurers, and the exploding number of Americans who spend $10 billion a year on medicine in their thirst for nature's healing secrets. Plotkin, trained as an ethnobotanist, has done extensive research throughout the lowlands of tropical South America. He currently serves as president of the Amazon Conservation Team and research associate at the Smithsonian Institution's Museum of Natural History. His research has been featured in *Life*, *Newsweek*, *Smithsonian*, *Time*, and *The New York Times,* as well as PBS's Nova and the Academy Award-winning documentary *Amazon*. His book, *MEDICINE QUEST: In Search of Nature's Healing Secrets*, will be available for purchase and signing.

18th-century depiction of Northeastern Indian life, AMNH

program listings

EARTHWATCH AT THE MUSEUM

Two Lectures, Thursdays, May 11 and June 8, 7:00-8:30 p.m. Fee: $12 each ($10 Museum, students, senior citizens and Earthwatch members). Program Code: ED20207L.

This series is co-sponsored by Earthwatch Institute, an international nonprofit organization that promotes sustainable conservation of our natural resources and cultural heritage by creating partnerships among scientists, educators, and the public. Through public participation in worldwide research expeditions, the Earthwatch Institute funds and supports scientists, gathers data, and communicates the results, with the goal of facilitating local solutions and inspiring global citizenship.

Earthwatch scientists will present their research using slides and occasionally videos clips. For additional information, call 212-769-5176.

Wings in the Mist: Protecting Cloud Forest Birds in Ecuador

May 11

The Pacific-coast forests of Ecuador harbor fifty-five endemic bird species and rank with Madagascar and the Atlantic forests of Brazil as a global "hot spot" in need of conservation. Much of the land in this region is owned communally.

Constance D. Becker, assistant professor of Conservation Ecology, Kansas State University, will discuss the involvement of local people in forest protection, community-level research, and environmental education.

Stand Vigilant: Whooping Cranes Return to Florida

June 8

Can careful rearing and predator-avoidance training bring the great white whooping crane back to the Kissimmee Prairie of central Florida?

Michael Kreger, of the renowned Patuxent Wildlife Center, will describe his and colleagues' efforts to test how different rearing methods, and even the birds' personalities, are instrumental in enhancing the cranes' ability to avoid bobcats and other predators.

This work is intended to develop a new model for crane reintroduction into the wild and will help ensure the survival of this endangered species in its historical habitat.

Michael Kreger is on the faculty of the University of Maryland and is Technical Information Specialist for the Patuxent Wildlife Research Center, Maryland.

Whooping Crane Diorama, AMNH Special Collections

FRONTIERS IN ASTROPHYSICS

The Runaway Universe: Measuring the Universe with Supernovae

Robert Kirshner

April 10, 7:30 p.m., Kaufmann Theater. Program Code: HP203L.

Supernovae are exploding stars that are bright enough to observe halfway across the Universe. Using supernovae as distance indicators, astronomers can now investigate the history of cosmic expansion.

Our latest results indicate that the Universe is not being decelerated in the way we expected, based on the observed amount of matter in the Universe. Instead of measuring the predicted slowing down of cosmic expansion, the supernova evidence favors cosmic acceleration over the last 8 billion years. If this new picture is correct, it predicts the Universe will expand at an increasing rate as time goes by, a "Runaway Universe." The observed acceleration requires most of the energy density of the Universe to reside in the form of a Cosmological Constant, as presciently suggested by Einstein in 1917. This talk will present the evidence for this strange new picture of the Universe.

DISTINGUISHED AUTHORS IN ASTRONOMY

The Apollo Odyssey

Andrew Chaikin

April 17, 7:30 p.m., Kaufmann Theater. Program Code: HP213L.

On the night of July 20, 1969, our world was changed forever when two Americans, Neil Armstrong and Buzz Aldrin, walked on the Moon. Now the greatest event of the 20th century is magnificently retold through the eyes and ears of the people who were there: 23 Moon voyagers and those who struggled to get the program moving.

Andrew Chaikin, an author, has been an editor at *Sky & Telescope* magazine for many years. The book, *A Man on the Moon*, took eight years to complete and is a classic. This book is now the basis for the HBO multi-part series on *Apollo*, entitled "From the Earth to the Moon," being produced by *Apollo 13's* Tom Hanks.

CHILDREN'S WORKSHOPS

Bonita's Nature Book
Sunday, April 9, 10:30 a.m.–1:30 p.m. Ages 8–9. Fee: $15.

Undersea Neighbors
Sunday, April 9, 10:30 a.m.–11:30 p.m. Ages 6–7. Fee: $10.

Earthquake Books
Sunday, April 9, 10:30 a.m.–1:30 p.m. Ages 8 and 9. Fee: $15.

Web Electronic Totem Poles
Sunday, April 16, 10:30 a.m.–1:30 p.m. Ages 9–10. Fee: $15.

Fun With Fossils
Sunday, April 16, 10:30 a.m.–1:30 p.m. Ages 8–9. Fee: $15.

A First Look at Chinese Brush Painting
Sunday, April 30, 10:30 a.m.–1:30 p.m. Ages 9–10. Fee: $15.

All About Fish
Sunday, April 30, 10:30 a.m.–12:00 noon. Age 5, each child must be accompanied by one adult. Fee: $10 (child and one adult).

Shinnecock Soup
Sunday, April 30, 10:30 a.m.–1:30 p.m. Ages 8–9. Fee: $15.

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.

Association Annual Meeting
Monday, April 3, 10:30–11:45 a.m.

Annual Literary Lunch and Award Ceremony
Monday, April 3, 12:00 noon-1:30 p.m.

museum notes

Reservations Now Being Taken for the Best Seats in the Universe

Did you ever wish you could write your loved one's name in the stars? Well, now you can in the new Hayden Planetarium in the Rose Center for Earth and Space.

The Seat in the Stars program offers the opportunity for people to sponsor seats in the Space Theater, while supporting exciting new programming and educational initiatives in the Rose Center. Each seat that is named receives a plaque on its arm with text composed by its sponsor. Seats have been purchased to commemorate special occasions such as birthdays and anniversaries, or simply to honor family and friends.

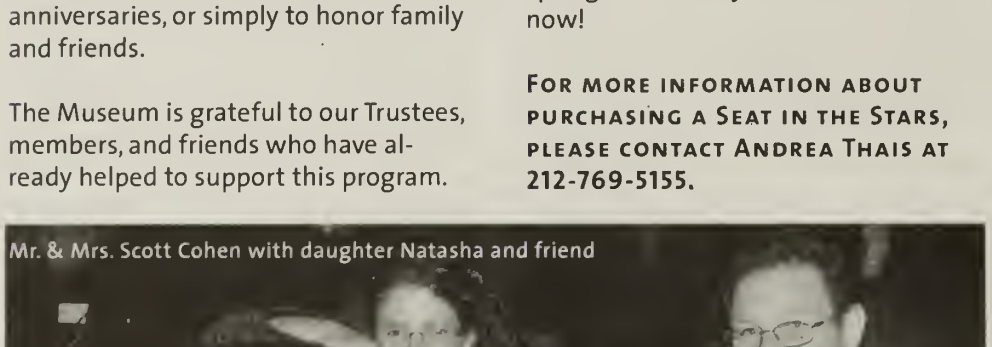
The Museum is grateful to our Trustees, members, and friends who have already helped to support this program.

Launched in June 1999, Seat in the Stars has already sold 196 seats, generating almost $1.8 million. Seats are available at $5,000, $10,000, and $25,000 each and your gift is completely tax-deductible.

Each year hundreds of thousands of visitors will visit the Planetarium. Purchasing a Seat in the Stars is a wonderful way to support the Museum, as well as make your permanent mark on one of New York's newest landmarks.

On January 25th, a champagne reception honoring those who had purchased seats was held in the Rose Center. Another special reception is planned for new seat buyers this spring, so reserve your Seat in the Stars now!

For more information about purchasing a Seat in the Stars, please contact Andrea Thais at 212-769-5155.



Mr. & Mrs. Scott Cohen with daughter Natasha and friend

Museum's Creatures Spill out into Subway

Thanks to recent renovations to the 81st Street subway station, visitors travelling to the Museum by subway will begin their Museum experience the moment they step from the train.

Drawing on themes from the natural sciences, the renovation features a permanent artwork installation and includes new floor and wall tiles, lighting improvements, structural repairs, and the installation of MetroCard vending machines.

Inspired by the Museum's unique direct subway access, Metropolitan Transit Authority architects–in close collaboration with Arts for Transit artists and the Museum's scientific staff–designed a site-appropriate transition between the Museum and the 79th Street station entrance.

At this entrance, a pink granite depiction of a cell sits in the center of the station's floor, dividing and spiralling outward into other organisms, such as mollusks, fish, and insects.

The spiral image is repeated on the 81st Street "Planetarium" entrance mezzanine, signifying the first moment in cosmic time, the Big Bang, and everything that it created. Expanding this theme, the two 81st Street staircases depict the the solar system and the layers of the Earth's crust. The first staircase is studded with beautiful mosaics of sparkling stars and planets as they would have appeared from the perspective of the sun on January 1, 2000.

The upper platform's "story" begins with the coelacanth, a living fish that was once thought to be extinct.

Throughout the walls, depictions of endangered animal species include small question marks subtly incorporated into the mosaic.

A black polished granite "shadow" on the wall represents the fifth extinction event of the world's wildlife, after which the wall culminates in a gradated color mosaic with a question mark, raising the question of a sixth, contemporary extinction event.

The lower platform's wall features mosaic fossils of extinct animals, including dinosaurs and mastodons, each skeletal depiction of which is "shadowed" by a silhouette of the animal as it probably appeared.

On both the upper and lower platforms, pink granite floor tiles use human symbols of various insects and birds, echoing the corresponding wall images.

With such a gorgeous and thought-provoking display, the new 81st Street subway station is very nearly a museum unto itself, and is certainly a fitting beginning to your Museum experience.

The Universe in Your Living Room

Window to the Universe, a new film that documents the spectacular new Rose Center for Earth and Space, will air on April 27, at 8 p.m., on Channel Thirteen/WNET New York.

Narrated by Tom Brokaw, this exciting new documentary chronicles the making of the Rose Center for Earth and Space. The film explores the Rose Center's role as a repository for humanity's greatest questions about the universe. Through intriguing interviews and interesting film footage, the documentary reveals how the facility's exhibition, research, and education spaces provide answers to these great questions.

Dinosaur Weekend

Join us on April 15th and 16th from 1 to 4 p.m. for a fun and educational weekend at the Museum featuring dinosaur digs, scavenger hunts, dinosaur bookmaking, and much more. Highlights of the special weekend will include presentations by scientists, guided tours of the Fossil Halls, and a chance to check out the Moveable Museum's Paleontology of Dinosaurs exhibition.

The weekend is a collaboration with Discovery Kids, which will air footage taken of the fascinating and fun festivities on The Discovery Channel's Saturday and Sunday morning Discovery Kids television program. Free with Museum admission.

Please Accept Our Apologies

Last month's Department of Education program *The Science of Raising the Mammoth* was an unprecedented and overwhelming success. This program was assembled on very short notice, and, as a result, we devoted the majority of our promotional efforts to the Museum's most loyal audience, our members. Your response was amazing, and we filled the main auditorium.

Unfortunately, we also had to turn away several hundred people. In order to avoid this situation in the future, we are exploring the following strategies: simultaneous broadcasts into other Museum theaters, repeating popular programs, making it clear on promotional materials that seating is limited and available on a first-come-first-served basis, and ticketing all programs, even those that are free. Your commitment is essential to the Museum and makes this institution special.

—Department of Education

Museum Hours

Exhibition Halls

Mon.–Thurs.	10:00 a.m.–5:45 p.m.
Fri. & Sat.	10:00 a.m.–8:45 p.m.
Sun.	10:00 a.m.–5:45 p.m.

The Museum Library

Tues.–Fri.	11:00 a.m.–4:00 p.m.

Museum Dining

Cafe on 4

Sun.–Thurs.	11:00 a.m.–4:45 p.m.
Fri.–Sat.	11:00 a.m.–7:45 p.m.

Ocean Life Cafe

Sun.–Thurs.	11:00 a.m.–4:45 p.m.
Fri.–Sat.	11:00 a.m.–7:45 p.m.

77th Street Snack Bar

Sun.–Thurs.	11:00 a.m.–4:30 p.m.
Fri.–Sat.	11:00 a.m.–4:30 p.m.

Natural Science Center

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.

The Museum Shop

Mon.–Thurs.	10:00 a.m.–5:45 p.m.
Fri. & Sat.	10:00 a.m.–7:45 p.m.
Sun.	10:00 a.m.–5:45 p.m.

Parking

The 3-story visitor parking garage is open; enter from West 81st Street. For public transportation and parking information, call (212) 769-5200. The Museum is well served by public transportation.

Central Reservation Coupon

Program Name/Date # Members

_____

_____

_____

Total $ _____

Mr./Mrs./Miss/Ms. _____

Address _____

City _____ State _____ Zip _____

Telephone (Day) _____ (Evening) _____

Membership No. _____

❑ Check ❑ Am.Ex. ❑ Visa ❑ Master Card

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.

Rotunda
AM. MUS. NAT. HIST. LIBRARY
Received on: 04-04-2000

Entrances

During Museum hours, visitors can enter the building through the 77th Street entrance, the 79th Street subway entrance, the first- and second-floor Roosevelt Memorial Hall entrances (79th Street and Central Park West), or through the West 81st Street Rose Center 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.

Membership Department,
Central Park West @ 79th Street
New York, New York 10024-5192
www.amnh.org

AMERICAN MUSEUM of NATURAL HISTORY
M E M B E R

rotunda

Vol. 25 No. 5 May 2000

Members' Newsletter

fighting dinosaurs

QH70
.U52
N5
v. 25
no. 5
May 2000

American Museum of Natural History

fighting dinosaurs

Today, encompassing 500,000 square miles of seemingly barren sand and windswept mountains, the Gobi Desert is one of the planet's most desolate landscapes. Yet it is here, in the midst of this emptiness, that scientists have discovered a treasure trove of fossil remains, spectacular relics from a time 80 million years earlier when the same spot in Central Asia teemed with dinosaurs, birds, lizards, and mammals. The exhibition, *Fighting Dinosaurs: New Discoveries from Mongolia*, running from May 19 through October 29, dramatically showcases these fascinating finds.

The exhibition's centerpiece is the spectacular "fighting dinosaurs" fossil–a fierce *Velociraptor* that died apparently locked in combat with a plant-eating, shield-headed *Protoceratops*. Found in 1971 by a Mongolian/Polish expedition in the white sandstone cliffs of Tugrugeen Shireeh in South Central Mongolia, the fighting dinosaurs are considered to be among the greatest dinosaur specimens ever collected and have been designated a national treasure of Mongolia. This is the first time the specimen has been displayed in the United States.

The other dinosaur fossils unearthed in these expeditions include eggs, nests, and juveniles and their parents, combining to provide a fuller understanding of the anatomy and behavior of the area's ancient inhabitants. The exhibition also features surprising new evidence suggesting that some of the birdlike creatures were feathered.

In order to tell the full story of these remarkable discoveries, the exhibition is divided into eight sections.

Visitors begin their own journey of discovery with a striking diorama of the region now known as Ukhaa Tolgod, Mongolia, as it may have looked some 80 million years ago. Dating from near the end of the age of dinosaurs, the site at Ukhaa Tolgod–discovered in 1993 by a team of scientists from the American Museum of Natural History and the Mongolian Academy of Sciences–has proved to be one of the world's richest locations for vertebrate fossils. Featuring some of the species that lived in the Gobi during the Late Cretaceous period (between 65 to 90 million years ago), the diorama provides an illustration of what the desert environment was like at that distant moment in time.

Visitors next move to a section on the Gobi as it appears today. Here, they can compare conclusions drawn from fossils discovered by Roy Chapman Andrews, the famous Museum expedition leader of the 1920s and 1930s, with results from research completed during expeditions led in the 1990s by Mark A. Norell, curator of *Fighting Dinosaurs* and chairman of the Division of Paleontology, and Michael J. Novacek, provost, senior vice president, and curator in the Division of Paleontology. Paleontologists have used these specimens to piece together the Gobi environment during the Late Cretaceous period, which in turn provide important clues to how mammals have evolved. The specimens found by Roy Chapman Andrews in this section include an *Oviraptor* egg, a fragment of the flightless bird *Shuvuuia*, a *Protoceratops* skull, and a *Velociraptor* skull.

The exquisite preservation of fossils in the Gobi, which has provided scientists with some of the world's best fossil vertebrate specimens, serves as the focus of the exhibition's third section. Recent studies indicate that collapsing sand dunes triggered by torrential rains may have buried the fossil animals alive before scavengers could peck at them, leaving behind pristine skeletons frozen in action for scientists to discover 80 million years later. A lizard, a multituberculate (an ancient mammal), and two oviraptorids–relatives of *Oviraptor*–that were found side-by-side are among this section's well-preserved prizes. A six-minute film highlighting a century's worth of perfectly preserved specimens discovered in the Gobi is included.

Cover: Model of *Oviraptor* nest, still under construction; photo by Denis Finnin, AMNH. Left: *Velociraptor* skull, Mick Ellison, AMNH. Above Right: Early stages of the *Protoceratops* model, photo by Denis Finnin, AMNH.

The fighting dinosaurs are the focal point of the exhibition's fourth section. Illustrating the diversity of life in the Gobi and how specific finds have increased our understanding of dinosaur growth, behavior, and variation, this section describes dinosaur nesting and parenting behavior, and discusses the unique features of various species' fossil nests. Visitors can watch a computer animation of the *Velociraptor* engaging the *Protoceratops* in combat–until a sand dune collapses above, entombing them both. Also included in this section are the famous nesting oviraptorid, which went on temporary view at the Museum in 1995, a troodontid nest with a fossil hatchling, and a protoceratopsian nest with embryo specimens.

Representing fossils buried in the Gobi sandstone, the fighting dinosaurs are surrounded by casts of a variety of dinosaurs embedded in a stratified wall. Another wall contains research specimens that include several new discoveries by Museum scientists, one of which was just announced in March–a new troodontid dinosaur named *Byronosaurus jaffei*.

The fifth section of the exhibition centers around a *Velociraptor* and a new nesting oviraptorid. It examines the links between dinosaurs and birds, the continued search for more evidence to support this link, and the origin of feathers.

Illustrating the process that led to the great diversity of modern mammals, the exhibition's sixth section focuses on the evolution of mammals. This section showcases the finest Late Cretaceous mammal specimens found in the world. A *Deltatheridium* and an *Ukhaatherium* help us understand what role mammals played in the Gobi environment and how such a vast diversity of mammals arose from relatively simple beginnings.

The seventh section includes a replica of a dig site, offering visitors the opportunity to try their hand at hunting for fossils. Also, a computerized dig recreates the stages of fossil discovery, from uncovering a specimen to illustrating a fleshed-out animal. In this section the visitor will learn how paleontologists find fossil sites, how specimens are retrieved, and what happens back in the laboratory.

The exhibition concludes with a resource area that features touchable specimens and computer stations which provide links to dozens of dinosaur Web sites.

***Fighting Dinosaurs: New Discoveries from Mongolia* has been organized by Mark A. Norell, chair and curator of the Division of Paleontology and is made possible through the support of the Lila Wallace-Reader's Digest Endowment Fund.**

Go behind-the-scenes in next month's feature story on the making of the *Fighting Dinosaurs: New Discoveries from Mongolia* exhibition.

rotunda

ISSN 0194-6110
Vol. 25, No. 5, May 2000

John Davey, Editor
Rosemary Caulk, Director of Membership
Lynn DeBow, Vice President for Development and Membership
Ellen V. Futter, President
Anne Sidamon-Eristoff, Chairman

Rotunda is published monthly, except for a combined issue in July/August, by the Membership Office of the American Museum of Natural History, Central Park West @ 79th Street, New York, N.Y. 10024-5192. Telephone: (212) 769-5606. Web address: www.amnh.org. Museum membership of $45 per year and up includes a subscription to *Rotunda*. ©2000 American Museum of Natural History. Periodical postage paid at Rutherford, N.J., and at additional mailing offices. Postmaster: Please send address changes to *Rotunda*, Membership Office, AMNH, at the above address. Printed in the USA.

program listings

MONGOLIA NOW: INDEPENDENT VOICES

Monday to Sunday, May 22 to 28, and Saturday and Sunday, June 3 to 4.

Presented by the Department of Education's Margaret Mead Film & Video Festival and Multicultural Programs with the Permanent Mission of Mongolia to the United Nations.

Mongolia's living cultural traditions and contemporary works are the focus of this special program.

This program is presented in conjunction with the citywide Festival of Mongolia and two Museum exhibitions–*Mongolia Observed: Photographs Present and Past* and *Fighting Dinosaurs: New Discoveries from Mongolia.*

Monday to Sunday, May 22 to 28
Hall of Asian Mammals, second floor

Ger Display
On display will be a 22-foot-wide ger–a circular felt tent which is the traditional home of the nomadic peoples of Mongolia.

Monday to Friday, May 22 to 26
Hall of Asian Mammals, second floor

Felt-Making Demonstrations
Monday to Friday, May 22 to 26, 10:30 a.m. to 12:30 p.m.

Monday, Tuesday, and Friday, May 22, 23, and 26, 2:00 to 3:30 p.m.

(Other demonstrations: Saturday and Sunday, May 27 and 28)

Byambaa Jambal, a contemporary felt maker from Ulaanbaator, demonstrates how to craft wool into felt.

Traditional Wrestling Demonstrations
Monday to Friday, May 22 to 26, 3:00 to 4:30 p.m. each day

Friday, May 26, 7:00 to 8:00 p.m.

Observe the unique form of Mongolian wrestling. Four highly ranked wrestlers from Mongolia demonstrate the skills, rituals, and technique of this national sport.

Music, Song, and Folklore
Thursday, May 25, 1:30 to 2:30 p.m.

(See other programs on Saturday and Sunday, May 27 and 28)

Performers from Mongolia sing and play traditional and contemporary compositions.

Kaufmann Theater, first floor

Melodies from the Blue Skies of Mongolia: Mongolian Folk Song and Dance Ensemble
Monday to Wednesday, and Friday, May 22 to 24, and 26, 2:30 to 3:30 p.m.

Learn about Mongolia's rich nomadic heritage through a lively and interactive presentation of music, song, and dance.

Photo: Courtesy Permanent Mission of Mongolia to the United Nations

Linder Theater, first floor

Making Felt
Wednesday and Thursday, May 24 and 25, 2:00 to 3:30 p.m.

Byambaa Jambal, artist/felt maker from Mongolia, demonstrates the various stages and processes of making felt.

Saturday, May 27
Kaufmann Theater

Welcoming Remarks: Ambassador Enkhsaikhan Jargalsaikhany, Permanent Representative of the Permanent Mission of Mongolia to the United Nations
12:00 noon

Video: *Toiglokh: The Sounds that Soothe Melody of Mother*

12:15 to 1:15 p.m.

This lyrical short looks at the remarkable traditional practice of Toiglokh–using massage and singing to ease farm animals into giving milk to abandoned calves, lambs, and young camels.

The Path of Chingis Khan

1:30 to 2:30 p.m.

Paul Kahn, the author of the modern English translation of *The Secret History of the Mongols: The Origin of Chingis Khan* (Boston, Cheng & Tsui1998), will speak about the life of this world leader and the Mongolian culture of the thirteenth century.

Still from *Poets of Mongolia*

Echoes from the Great Steppes: Mongolian Folk Song and Dance Ensemble, Ts. Tserendorj, Ts.Soyol-Erdene and Contortionists Solongo and Indra.

2:45 to 4:30 p.m. and 7:15 to 9:00 p.m.

Video: *Ferocious Saint Lord of the Gobi*

4:45 to 7:00 p.m.

G. Nyamagavaa, one of the most celebrated filmmakers in Mongolia today, will present his latest feature film, a cinematic biography of Danzanravjaa, a nineteenth-century incarnate lama. Discussion with director will follow.

Hall of Asian Mammals, second floor

Felt-Making Demonstrations

11:00 a.m. to 12:30 p.m.

(See Monday to Friday, May 22 to 26 program)

Mongolian Anklebone Games and Wrestling Demonstrations

1:30 to 5:00 p.m. and 6:30 to 8:30 p.m.

Led by bone master Ts. Enkhbat, see how to play the many individual and group bone games for all ages.

Music, Song, and Folklore

1:00 to 2:00 p.m., 5:00 to 6:00 p.m.

(See Thursday, May 25 program, under Monday to Friday, May 22 to 26)

CONTINUED ON PAGE 12

COSMIC CATASTROPHES: Stellar Collisions and Mergers: a Colloquium

May 30 to June 2, 2000 New York City

There has never been a conference on stellar collisions. Long thought to be so rare that they could be ignored, physical collisions (and very near misses) are now known to be commonplace and very important in dense star clusters. Stellar mergers may produce the most violently energetic events observable in the universe. Powerful new observational and computational tools are being brought to bear on the entire range of collision and merger phenomena.

The Science Organizing Committee announces a meeting to be held at the American Museum of Natural History and the new Hayden Planetarium in New York from May 30 to June 2, 2000.

This is a forum for active researchers in the fields of stellar collisions and mergers to review the current state of knowledge, share techniques and challenges, and chart a research path for the next decade.

Topics:

Black hole collisions–gravitational waves; neutron star collisions–sources of gamma ray bursts?; white dwarf collisions–tidal captures, massive disks, disruptions; colliding main sequence stars vs. common envelope evolution–blue stragglers; giants and supergiants stripped during encounters; collisions of stars with dense clouds or disks; the evolution of star clusters and galaxy nuclei driven by stellar encounters; Hubble Space Telescope and Chandra X-ray telescope detections of stellar collision; prospects for LIGO and LISA; critical observations, numerical and theoretical work needed for further progress.

For more information, please go to www.amnh.org/rose/stellar.

Panel Discussion

On Thursday, June 1, 7:00 to 8:30 p.m., in the IMAX Theater, Michael Shara, curator in charge of the Museum's new Astrophysics Department, will moderate a panel of distinguished scientists debating the wide-ranging implications of recent discoveries concerning stellar collisions from satellites, ground observations, and the Hubble Space telescope.

Free admission. Please call 212-769-5200 to reserve a ticket. First come-first serve seating to ticket holders.

members' programs

LECTURES

Is There a Science of History?

Wednesday, June 7, 7:00 p.m

Traditionally, there are two basic ways in which historians have pursued history: one is to present the events of the past in concrete and specific detail, with no attempt being made to generalize from these events; the other is to try to extract pattern, regularity, and direction from the details of history–that is, to try to erect a science of history. In this thought-provoking lecture, Museum anthropologist Robert Carneiro will address this issue and many smaller but interesting issues in history over which historians have long quarreled. Included are such problems as free will vs. determinism, moral judgments and contingency in history, and historical relativism. How these issues are treated sheds considerable light on how the broader question of whether a science of history is possible.

Carneiro is Curator of South American Ethnology in the Division of Anthropology. His primary ethnographic field work has focussed on Amazonia, where he has studied the Kuikuru of central Brazil, the Amahuaca of eastern Peru, and the Yanomamo of southern Venezuela.

Program Code: MM6-1. Fee: $10 members; $12 non-members. Linder Theater.

Life, Death and Discovery in the Lost World of Madagascar

Wednesday, June 14, 7:00 p.m.

Madagascar, the world's fourth largest island, is a living laboratory unlike anyplace else on earth. Located 250 miles off the east coast of Africa, it has been isolated from other landmasses for more than 160 million years. Since the age of dinosaurs, hundreds of plant and animal species have evolved here and only here, while creatures extinct elsewhere for tens of millions of years now vie with modern man for survival. Today, this real-life "lost world," one of the most unique environments on the planet, has also become one of its most endangered. Science writer and on-line producer Peter Tyson unveils the mysteries of Madagascar's past and explores the possibilities for its future.

Chameleon photographed in Madagascar
Photo: Peter Tyson

Copies of Tyson's book, *THE EIGHTH CONTINENT: Life, Death and Discovery in the Lost World of Madagascar* (William Morrow), will be available for purchase and signing.

Program Code: MM6-2. Fee: $10 members; $12 non-members. Kaufmann Theater.

Circling Staten Island

Saturday, June 24, 11:00 am to 4:00 p.m

Circumnavigate this geologically and historically fascinating part of New Yor City, in the company of Sidney Horenstein, geologist and the Museum's coordinator of environmental programs. Our cruise passes Staten Island's high coastal hills of Kill Van Kull, with its abundant bird life, and continues south into Raritan Bay. The unique afternoon experience also includes an exploration of the ecology of Prall's Island, Hoffman and Swinburne Islands, and Shooter's Islan with its still visible wrecks and tidal flats. In addition, it takes in Tottenville's colonial past and historic lighthouses–all sentinels of New York Bay–along with unusual views of the Verrazano Narrows. Bring your own box lunch, but snacks are also available on board.

Cost: $45 members; $50 non-members. Code: ED20324X.

CHILDREN'S WORKSHOPS

Casting Dinosaur Eggs

Saturday, June 3, 1:00 p.m. or 4:00 p.m.

Using molds cast from actual Oviraptor eggs, children will make their own dinosaur egg nest fashioned out of terra cotta clay. At the end of the ninety-minute workshop, you will have your own dinosaur egg nest to take home along with many new facts abou these long extinct animals.

Pamela Popeson, artist and former director of the Museum's Fossil Reproduction Department, will teach this educational and fun-filled workshop. This program is for children of ages six to nine years.

Code: MM6-3A (1:00 p.m.) or MM6-3B (4:00p.m.). Cost: $20–members only. Room 319.

T Rex Teeth in Matrix

Saturday, June 17, 1:00 or 4:00 p.m.

Become a novice fossil hunter by examining the teeth of a dozen different fossil species and discover what scientists can learn from their finds. In this one-and-a-half-hour workshop with Pamela Popeson, artist and former director of the Museum's Fossil Reproduction Department, you will create your own fossil of the legendary *Tyrannosaurus Rex*. Make and assemble four plaster cast fragments of fossilized *T Rex* teeth in matrix that fit together in a jigsaw fashion. Then glue and paint the finished fossil reconstruction to resemble a real Museum specimen for your own collection. This workshop is appropriate for children of ages 7 and older.

Code: MM6-4A (1:00 p.m.) or MM6-4B (4:00 p.m.). Cost: $20. Room 319.

PARENT/CHILD WORKSHOP

Adopt an Alien

Saturday, June 24, 10:30 a.m. or 2:00 p.m. Room 319.

We now know that our sun is just an ordinary star among billions of others in the Milky Way, and that there are many other galaxies in our expanding universe. What we can only imagine is what alien life forms might be found out there. But what fun that can be!

Join artist June Myles for a chance to invent your own "alien," by using a variety of earthbound materials to create a mask of your space being. It will be up to you to develop a history of origin of your adopted alien. Of course, you'll be able to wear it home to wow or terrify your neighborhood.

This workshop is appropriate for children of five years or older, accompanied by equally mature adults.

Code: MM6-5A (10:30 a.m.) or MM6-5B (2:00 p.m.). Cost: $28 per adult/child couple–members only.

PREVIOUSLY LISTED

Special Members' Program

An Evening with Buzz Aldrin

Thursday, May 18, 7:00 p.m.

Buzz Aldrin, the second man to walk on the moon and one of the world's most famous astronauts, will discuss his views of the future of the space program, with particular focus on civilian space exploration.

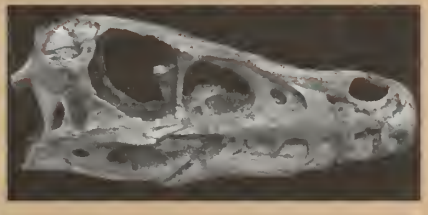
Join us for an out-of-this-world journey into space travel's past, present, and exciting future with one of the few humans who have left "footprints" in the stars.

Aldrin's new novel, *The Return* (Forge, $25.95), co-written by John Barnes, will be available for purchase and signing.

Main Auditorium. Code: MM5-3. $12 members; $15 non-members.

Please join us for a private Members' Evening in the new exhibition

Fighting Dinosaurs: New Discoveries From Mongolia



Tuesday, May 23, 6:00–8:30 p.m. in Gallery 3

Enter through the 77th Street entrance.

Kindly rsvp to the Membership Department at 212-769-5606.

Buzz Aldrin

Members' Fishing Expedition

Saturday, May 20, 9:00 a.m.–5:30 p.m.

Fish the waterways of New York while you learn about local marine life and environmental issues. Dave Karrmann, biologist and naturalist from the Museum's education department, will accompany the group.

Optional roundtrip bus service is available from the Museum to Sheepshead Bay.

Program Code: MM5-1A Fee: $68, including roundtrip bus transportation from the Museum to Sheepshead Bay. Program Code MM5-1B Fee: $55, provide your own transportation and meet us at Pier 6, Sheepshead Bay.

WORKSHOP

Earth and Space, The Board Game

Saturday, May 13, 2 sessions, 10:30 a.m. and 2:30 p.m.

Take a special tour of the spectacular new Rose Center for Earth and Space, discovering fun facts about galaxies, stars, and planets as you go. After the tour, using your new know-how, create your very own fun Earth and Space Board Game, complete with hand-sculpted galactic game pieces.

Children 7 & older. Program Code: MM5-2A (10:30 a.m. program) or MM5-2B (2:30 p.m. program). Fee: $22. Room 319.

may

Current Exhibits

Fighting Dinosaurs: New Discoveries From Mongolia
May 19–October 29

Full Moon
Through September 23

Body Art: Marks of Identity
Through May 29

The Butterfly Conservatory
Through May 29

Monday **1**

Tuesday **2**
Life in the 18th Century
Education Program
7:00–8:30 p.m.

Wednesday **3**

Thursday **4**
"Dear Bunny, Dear Volodya"
Education Program
7:00–8:30 p.m.

Friday **5**

Saturday **6**

Sunday **7**

Monday **8**

Tuesday **9**
Revolutionizing Medicine
Education Program
7:00–8:30 p.m.

Wednesday **10**
The Secret Underground
Education Program
7:00–8:30 p.m.

Medicine Quest
Education Program
7:30–9:00 p.m.

Thursday **11**
Earthwatch
Education Program
7:00–8:30 p.m.

Friday **12**

Saturday **13**
Earth & Space, the Board Game
Members' Workshop
10:30 a.m. & 2:30 p.m.

Sunday **14**

Monday **15**
Sun & Solar Eclipses
Frontiers in Astrophysics
7:30 p.m.

Tuesday **16**
Revolutionizing Medicine
Education Program
7:00–8:30 p.m.

Wednesday **17**
The River Indians
Education Program
7:30–9:00 p.m.

Thursday **18**
An Evening With Buzz Aldrin
Members' Program
7:00 p.m.

Wonders of New York
Education Program
7:00–8:30 p.m.

Friday **19**

Saturday **20**
Members' Fishing Expedition
9:00 a.m.–5:30 p.m.

Sunday **21**

Monday **22**
NASA Unveils Asteroid 433 Eros
Distinguished Authors
7:30 p.m.

Tuesday **23**
Members' Preview
Fighting Dinosaurs
6:00–8:30 *p.m.*

Revolutionizing Medicine
Education Program
7:00–8:30 p.m.

Wednesday **24**
The River Indians
Education Program
7:30–9:00 p.m.

Thursday **25**
Wonders of New York
Education Program
7:00–8:30 p.m.

Friday **26**

Saturday **27**
Discovery Room
12–4:30 p.m.

Sunday **28**
Discovery Room
12–4:30 p.m.

Monday **29**

Tuesday **30**

Wednesday **31**
The River Indians
Education Program
7:30–9:00 p.m.

third annual young naturalist awards

The Young Naturalist Awards were created three years ago by the National Center for Science Literacy, Education, and Technology to promote participation and communication in science by young people. This important program, made possible by a generous grant from The Chase Manhattan Foundation, honors twelve students each year in grades 7 through 12 from across the country for their excellence in science as demonstrated by their entries to the contest. The award ceremony for this year's winners will be held at the Museum on May 12th.

Through this program, the Museum encourages teachers and schools across the country to challenge students to observe the world around them, translating their observations and research into a project based on guidelines provided by the Museum. Students document their experience in an essay and artwork. The projects are submitted to the Museum and judged by a panel of distinguished scientists, science writers, and science educators who have the often-difficult task of choosing two winning entries for each grade level. The winners receive a free trip to the Museum, where they will attend the awards ceremony and go on a behind-the-scenes tour. Each winner is also awarded a cash prize and will have an excerpt of his or her entry published in *Natural History* magazine, a special nationally distributed catalog, and on the Museum's Web site.

The theme of this year's contest, "Looking Back, Looking Ahead," was inspired by the amazing scientific advancements made in the 20th century, a time marked by new discoveries, new ideas, and, most importantly, new questions. Choosing from three project categories–research, exhibitions, or expeditions–contest participants were asked to look back into the past to help predict where we might be headed in the future.

Jayrene June, a Young Naturalist Award winner, records data for her essay on Indian Ricegrass

Students selecting the research project were asked to choose a scientific topic or question in biology, Earth science, or astronomy, look at what we knew about it in 1900, what we know in 2000, and what we might know in 2100. Those students choosing to create an exhibition project designed their own exhibition based on a scientific discovery in biology, Earth science, or astronomy. And students opting for the expedition category created their own expedition, providing new data, questions, specimens, or observations to address a question in biology.

Selected from a field of nearly one thousand entries, the Young Naturalist Award winners for 2000 are as follows:

Grade 7: Andrew Walker, Beverly, MA, "Mars-Past, Present, Future"; Hallie Woodward, Olive Branch, MS, "The Circle of the Food Chain and Decomposition" Grade 8: Amber Overstreet, Big Timber, MT, "Can Tropical Fish Survive in a Lake in Southwestern Montana?"; Claire Esker, Chicago, IL, "The Big Chill: Calming Signals Among Wolves" Grade 9: Gaurav Gupta, McLean, VA, "Fiddler on the Marsh"; Kevin Swain, Churchville, NY, "Paleontology and Stratigraphy of the Rochester NY Area" Grade 10: Elaine Gould, Warwick, RI, "Agricultural Genetic Engineering"; Janet Lee, Chino Hills, CA, "Genetics: An Increasingly Important Field of Science" Grade 11: Wambui Kamuiru, Milwaukee, WI, "Operation: Human Genome Project"; Amy Tsao, Tenafly, NJ, "Seeing Double: An Exhibit on Cloning" Grade 12: Jayrene June, Kaibeto, AZ, "The Indian Ricegrass"; Amber Herrmann, Huntsville, AL, "A Study of the Orbital Path of Jupiter's Moons."

If you are interested in reading excerpts from the winning entries, or would like more information on the Young Naturalist Awards, please see http://www.amnh.org/youngnaturalistawards/.

Additional support provided by The Schnurmacher Foundations.

Michael Feller, president of The Chase Manhattan Foundation, describes Chase's rationale for their support of The Young Naturalist Awards program:

Chase has had a long-standing relationship with the American Museum of Natural History. Our sponsorship of the Young Naturalist Awards program demonstrates not only our commitment to the Museum but to education, as well. Pre-collegiate education is a major focus of Chase's philanthropic program. Chase is also a major supporter of arts education programs that restore the arts to schools where they have been cut back or eliminated. That's why our support of The Young Naturalist Awards program is such a *natural* fit; it encourages both the scientist and the artist in each student.

program listings

DEPARTMENT OF EDUCATION

Life in the 18th Century

Tuesday, May 2, 7:00–8:30 p.m. Fee: $12 ($10 members, students, senior citizens).Program Code: ED20217L.

Olivier Bernier, author, historian and president of the Van Waveren Foundation presents the concepts and events, which shaped life in the era. The book *The World in 1800* will be available for purchase and signing.

"DEAR BUNNY, DEAR VOLODYA": The Friendship and the Feud

Thursday, May 4, 7:00–8:30 p.m. Fee: $12 ($10 members, students, senior citizens). Program Code: ED20218L.

A dramatic dialogue adapted from the letters of Edmund Wilson and Vladimir Nabokov by Terry Quinn. Using only the writers' words, Dear Bunny, Dear Volodya chronicles the bonding and eventual estrangement of Wilson and Nabokov.

The Secret Underground: New York Jazz and Painting 1940-1955

Wednesday, May 10, 7:00–8:30 p.m. Main Auditorium. Fee: $12 ($10 members, students, senior citizens).Program Code: ED20216L.

The parallel stories of the emergence of Bebop and Abstract Expressionism are the basis of this lecture. To register, please call: (212) 769-5200.

Image: NASA/Digital Image © Michael Light Studio

MEDICINE QUEST: In Search of Nature's Healing Secrets

Wednesday, May 10, 7:30–9:00 p.m. Fee: $12 ($10 members, students, senior citizens). Program Code: ED20220L.

In this illustrated talk, Mark J. Plotkin discusses where humanity will find new medicines for intractable diseases like AIDS, cancer, and diabetes.

THE RIVER INDIANS: First People of the Hudson Valley

Three Wednesdays, starting May 17, 7:30–9:00 p.m. Fee: $25 for series ($22.50 Museum members, students, and senior citizens); $12 each ($10 Museum, students, and senior citizens). Program Code: ED20219L.

Presented by anthropologist Robert S. Grumet, the lectures will explore the changing lifeways and dramatic events that affected life along the longest navigable river in the Mid-Atlantic region from 12,000 years ago to the end of the colonial era.

May 17 Hunting and Gathering on the Hudson

May 24 Hudson Valley Town Life

May 31 River Indian People, Places, and Events

Full Moon

Wednesday, May 17, 7:00–8:30 p.m. Fee: $12 ($10 members, students, senior citizens). Program Code: ED20220L.

Over 32,000 photographs were taken by the astronauts on their journeys to the moon. Using slide images from the project, Michael Light will discuss *Apollo* from the perspective of an artist, environmentalist, and would–be astronaut, focusing as much on the extraordinary aspects of the moon itself and its ancient landscape as on our triumphant human journeys to it. The book *Full Moon* will be available for sale and signing.

WONDERS OF NEW YORK: New York City Water Supply

Two Thursdays, May 18 and 25, 7:00–8:30 p.m. Fee: $20 for series ($18 Museum members, students, and senior citizens); $12 each ($10 Museum, students, and senior citizens). Program Code: ED20221L.

Sidney Horenstein, coordinator of Environmental Public Programs, presents two slide-illustrated lectures describing the events, the political intrigues, and the resulting expansion that led to the creation of New York's water-supply system–one of the world's great engineering feats.

EARTHWATCH AT THE MUSEUM

Two Lectures Thursdays, May 11 and June 8, 7:00–8:30 p.m. Fee: $12 each ($10 Museum, students, senior citizens and Earthwatch members). Program Code: ED20207L.

For additional information, call 212-769-5176.

May 11 Wings in the Mist: Protecting Cloud Forest Birds in Ecuador

June 8 Stand Vigilant Whooping Cranes Return to Florida

Revolutionizing Medicine in the 21st Century: Impact of Genetics and Molecular Biology

Tuesdays, starting May 9, 7:00-8:30 p.m.
Fee: $25 for series ($22.50 Museum members, students, and senior citizens); $12 each ($10 Museum, students, and senior citizens). Program Code: ED20214L.

In this 3-part lecture series, several of the world's leading biomedical researchers explore how pioneering research is profoundly changing medicine. For information, please call 212-769-5176. To reserve tickets, call 212-439-4300, or fax reservation requests to 212-769-5272, or go to tickets@amnh.org.

May 9: Cancer: New Technologies, New Directions

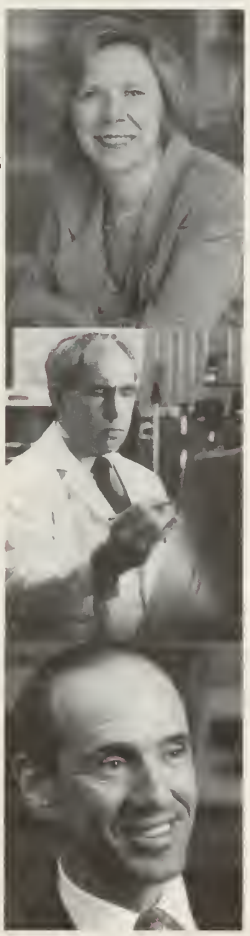
Dr. Karen Antman, Director of Columbia's Herbert Irving Comprehensive Cancer Care Center and Chief of the Division of Medical Oncology.

May 16: Gene Therapy Enters Adolescence: Progress and Issues

Dr. Ronald Crystal, Weill Medical College of Cornell Univ.

May 23: Generating New Cells, New Organs–Stem Cell Research and Application: Lecture and Biotechnology Industry Panel

Dr. Samuel Waksal, President and CEO, ImClone Systems, Inc.



Department of Education presents Close Up: Asian Pacific America

May 2000, Weekend Family Programs, 1:00 to 5:00 p.m.

In celebration of Asian Pacific American Heritage Month, the Museum presents films, lectures, and performances that recognize Asian Pacific American cultures, youth, and personal histories.

Saturday, May 6

Traditional Bangladeshi Dance and Music
1:00 and 4:15 p.m.

Film: *My America (...or honk if you love Buddha)*
2:00 p.m. 87 min.

Racial Profiling and the Case of Wen Ho Lee
3:30 p.m.

Sunday, May 7

Film: *Roots in Sand*
2:00 p.m., 56 min.

The Tale of Fong Yue Ting: Civil Rights of 19th Century New York
3:00 p.m.

Saturday, May 13

Sounds of Korea
1:00 and 4:00 p.m.

Film: *Passing Through*
2:00 p.m., 37 min.

Korean Adoptees: Identity, Culture and the Adoption Life Journey
3:00 p.m.

Sunday, May 14

Continuing Thai Traditions
1:00 and 4:00 p.m.

Film: Regret to Inform
2:00 p.m., 72 min.

Bi-Culturalism and the New Generation
3:15 p.m.

Saturday, May 20

Youth Speak Out! Video Program
1:00 p.m.

Video: *Snapshots*
Video: *American Sroksrei (Rice Paddy)*
Video: *Crossing Beyond Boundaries*

Panel: Youth Speak Out!
2:00 p.m.

Members of the Asian American Writers Workshop CreateNow Program, Asian Arts Initiative, and South Asian Youth Action discuss their work .

Video: *Desi Dub*
3:00 p.m., 25 min.

The South Asian Dance Music Scene
4:00 p.m.

Sunday, May 21

Unwritten Stories of Indigenous Philippines
1:00 and 4:00 p.m.

A Triptych of the Filipino Family Film & Video Program
2:00 p.m.

Video: *I Have No Regrets*
Film: *The Good Son*
Film Trailer: *The Debut*

Asian Faces in Hollywood: Looking Back, Moving Forward
3:00 p.m.

The Coalition of Asian Pacifics in Entertainment (CAPE) will present a brief history of Asian representation in Hollywood over the last eight decades.

All programs are free with suggested Museum admission. For further information, call 212-769-5315. Program information is also available at www.amnh.org/education.

The American Museum of Natural History wishes to thank the May and Samuel Rudin Family Foundation, Inc., the Tolan Family, and The Leonhardt Foundation for their support of these programs.

program listings

MONGOLIA NOW: INDEPENDENT VOICES

(CONTINUED FROM PAGE 5)

Sunday, May 28

Kaufmann Theater

Bone Games and Screening
12:00 noon to 1:00 p.m.

Ts.Enkhbat, master anklebone marksman, gives a live presentation, demonstrating and explaining the various team and individual bone games.

Video: Anklebone Circle
The patience and skill required to craft the pieces of the anklebone game are paralleled by the focus and mastery required for this traditional pastime. This stylized and compelling piece captures this unique contest.

Traditional Mongolian Wrestling and Archery
1:00 to 2:00 p.m.

National Champion Wrestlers of Mongolia and Master Archer L.Tsagaandalai

Video: Highlights from the Archives of the Central Asiatic Expedition
2:15 to 3:00 p.m.

In one of the AMNH's most celebrated expeditions, Roy Chapman Andrews led a team of scientists on multiple expeditions to the Gobi Desert between 1922 and 1930 to find the"missing link." Stunning cinematography captures different aspects of the expedition, from preparation to discovery, as well as remarkable footage of everyday life.

Mongolian Women in Transition
3:15 to 4:15 p.m.

Oidov Oyuntsetseg, director of the Gender Center for Sustainable Development (GCSD) in Ulaanbaatar, discusses the organizations' work to promote gender equality in Mongolia.

Echoes from the Great Steppes
5:00 to 7:15 p.m.

Mongolian Folk Song and Dance Ensemble, Ts. Tserendorj, Ts.Soyol-Erdene, and contortionists Solongo and Indra.

(See Saturday, May 27, 2:45 p.m. program)

Linder Theater, first floor

Chingis Khan Memorial Ceremony
11:00 a.m. to 12:00 p.m.

Ferocious Saint Lord of the Gobi
3:15 to 5:30 p.m.

(See Saturday, May 27, Kaufmann Theater program)

Hall of Asian Mammals, second floor

Felt-Making Demonstration
11:00 a.m. to 12:30 p.m.

(See Monday to Friday, May 22 to 26 program)

Music, Song, and Folklore
11:00 a.m. to 3:00 p.m.

(See Thursday, May 25 program under Monday to Friday, May 22 to 26)

Mongolian Anklebone Games and Wrestling Demonstrations
2:30 to 5:00 p.m.

(See Saturday, May 27 program)

WORKSHOPS: SATURDAY AND SUNDAY

MAY 27 AND 28

These workshops are free with suggested Museum admission but registration is required. Please call 212-769-5200.

Felt–Making Workshop

Saturday, May 27, 2:00 to 4:00 p.m. and 5:00 to 7:00 p.m.

Sunday, May 28, 2:00 to 4:00 p.m. Calder Lab, second floor. Program code: EDo0114M.

Archery Demonstration/Workshop
Saturday, May 27, 1:30 to 3:00 p.m., 4:00 to 5:30 p.m. Classroom 319, third floor.

Sunday, May 28, 2:00 to 3:30 p.m. Staff Lounge, fifth floor. Program code: EDo0115M.

Music, Song, and Dance Workshop
Sunday, May 28, 11:00 a.m. to 1:00 p.m. Staff Lounge, fifth floor. Program code: EDo0116M.

Throat singer L. Bazarvaani will provide a rare opportunity for participants to learn how to sing khöömii.

SATURDAY, JUNE 3

LINDER THEATER

Video: Urga Song
1:00 p.m.

This lyrical cine-poem portrays a newly democratic Mongolia from the perspectives of a young choreographer and a sculptor.

Video: Poets of Mongolia
1:45 p.m.

Depicted are the personal stories of a coal miner, the head of a powerplant, a blind singer, and an emigre now living in Belgium. These four stories evoke the meaning of poetry in everyday life in Mongolia.

Video: *Umbilical Cord*
3:15 p.m.

This is an abstract, experimental video portraying modernization and the resulting disjuncture among individuals, nature, and traditions.

Video: *Right to Live or Fire Keeping*
4:00 p.m.

From one of Mongolia's emerging international women directors comes a quiet but revealing documentary on the precarious economic situation experienced by coal miners since 1991.

Video: *Hard Burden*
5:00 p.m

Young boys from the Mongolian countryside and the city have been drawn into the black market where they work as "beasts of burden."

Video: *Destiny*
6:00p.m.

Dashdorjiin Natsagdorj's is considered to be the founder of contemporary Mongolian literature. Destiny is the musical adaptation of his famous opera *Uchirtai Gurvan Tolgoi* (*Three Meaningful Mountains*).

SUNDAY, JUNE 4

Destiny
1:00 p.m.
(See Saturday, June 3, Linder Theater)

Urga Song
2:30 p.m.
(See Saturday, June 3, Linder Theater)

Poets of Mongolia
3:15 p.m.
(See Saturday, June 3, Linder Theater)

Umbilical Cord
4:45 p.m.
(See Saturday, June 3, Linder Theater)

Mongolia Now: Independent Voices has been made possible with support from the Asian Cultural Council, The Leonhardt Foundation, The Henry Luce Foundation Inc., The Rockefeller Foundation, the May and Samuel Rudin Family Foundation, Inc., and the Trust for Mutual Understanding. All felt-making programs are co-sponsored by Mercy Corps International and the U.S. Agency for International Development.

All programs are free with suggested Museum admission. Registration is required for the workshops on Sat. and Sun., May 27 & 28. For all other programs, neither tickets nor reservations are required. Seating is limited and is available on a first come, first served basis. For further information, call 212-769-5315, or go to www.amnh.org/education.

Bring the stars home to Mom . . .

For Mother's Day, inspiring and beautiful celestial gifts that Mom will love.

00% silk neckerchief
y Nicole Miller.
28

aturn Jewelry-
lue enamel with
warovski crystals.
arrings and Pin,
our choice $34

elestial Scarf with
lustrations from our
are Books. 100%
ilk by Echo. $56
lso available in
lack with pink.

Moon and Stars
ewelry- 24k gold
late, with Swarovski
rystals. Earrings and
in, Your choice $32

The Invisible Universe
y David Malin $50

36" Zodiac Scarf.
Exclusively ours, by
Echo, 100% silk. $69

Starburst Jewelry-
24K gold plate, with
Swarovski crystals.
Earrings $110
Pin $125

Shop by phone:
212.769.5150 or at
www.amnh.org

A GIFTED IDEA.
AMERICAN MUSEUM OF NATURAL HISTORY

© 2000 AMNH

MAY 2000

museum notes

A Special Offer for Museum Members:

In conjunction with its popular exhibition *Body Art: Marks of Identity*, the Museum is proud to present the following special offers to its members. Through the end of May, members can enjoy:

-$1 off admission to *Hair in African Art & Culture* at the Museum for African Art, 593 Broadway. Good for two adults.

- $1 off admission to the International Center of Photography 1130 Fifth Ave. at 94th St., Good for two adults.

Present your AMNH Membership card at the admission desk at either institution.

Starry Nights: Fridays Under the Sphere

Come see some of the brightest stars in the jazz constellation as they perform every Friday evening from 6–8:00 p.m. in the Rose Center for Earth and Space. The month of May features the hot Brazilian sounds of the Claudio Roditi Quintet, who will play two one-hour sets, at 5:45 and 7:15 p.m. The music is free with suggested Museum admission, and items from an extensive tapas and beverage menu are available for purchase.

Photo by Denis Finnin, AMNH

Charlie Merrels Lays Up Treasure for the Museum's Future and for his Own Retirement

For most of his working life, Charlie Merrels was an importer of handcrafted products from developing countries. This is why, years ago, friends suggested that he visit the Museum one afternoon to see the many ethnographic materials on display from cultures around the globe.

"I was traveling to what were then the far reaches of the world," said Charlie during a recent visit to the Hall of Mexico and Central America, "to such exciting places for a young man as China, India, Taiwan, the Philippines, Burma, and Ecuador. I would work with local people, often assisted by local governments, in developing cottage industries for the production of traditional craft articles that could be exported to the United States and Canada. With my interest in helping people preserve their distinctive cultures in a way that is economically successful for all concerned, my friends predicted that I would find the Museum's many and varied collections fascinating, and of course, they were right."

After that first visit, Charlie took out the membership that he has maintained ever since. While he was in the habit of making modest contributions from time to time, larger gifts were out of his reach–until last year. "I was so pleased to learn about the Museum's Gift Annuity program, which offered me a way to make a substantial gift to the Museum and at the same time provide important benefits for my own retirement."

A Gift Annuity is a contract between the Museum and the donor. In consideration of a contribution to the Museum of $5,000 or more, one or two people receive quarterly payments, part of which are tax-free, for the rest of their lives. These payments are fixed, regardless of economic conditions, and the rates are based on the annuitants' ages at the time of the gift. In addition to receiving annuity income, the donors can claim a charitable income tax deduction on a good portion of the contribution.

Gift Annuities can be funded with cash or securities, and capital gains taxes are avoided when appreciated, low-yield stock is used to fund the gift.

Charlie is among the friends of the Museum who took advantage of the

Charlie Merrels on a visit to the AMNH

ability to achieve tax savings by funding the plan with appreciated securities. "I significantly reduced the capital gains taxes I would have owed if I had sold the shares myself. Best of all, I have the satisfaction of knowing that, in the future, my gift will go directly to the Museum for its work."

A Gift Annuity is just one of the gift plans offered by the Museum that can benefit donors and their families while providing for the Museum's future.

For more information about life income gifts, bequests and other creative giving techniques, please call the Planned Giving Office of the American Museum of Natural History at (212) 769-5119 or toll-free at (800) 453-5734.

Volunteer Opportunity

What do great white sharks, *Tyrannosaurus rex*, and mammoths all have in common?

The answer is that these species and other fossil animals can be seen in our world-renowned Halls of Vertebrate Evolution.

Trained volunteers in the Fossil Explainer Program provide an opportunity for visitors to join in a dialogue about the AMNH vertebrate paleontology on the fourth floor.

Applications for this program will be accepted until July 14. A background in vertebrate paleontology is not required to participate. Candidates will begin the required 12-week training in early September, Tuesday or Wednesday evenings, 6:30–8:30 p.m. When requesting an application from the Volunteer Services Office (212-769-5566), please specify your interest in the Fossil Explainer Program.

The Collector as Bookbinder: The Piscatorial Bindings of S. A. Neff, Jr.

April 1 to June 25, Library Gallery, 4th Floor.

A collector's passion for fly-fishing and the art of bookbinding culminates in this exhibit of meticulously handcrafted works from S. A. Neff's private angling library. Neff's jewel-like volumes and bookboxes are bound in goatskin leather, often covered with intricate patterns done in vibrant colors and fishing motifs. The effect is achieved by molding leather or inlaying thin pieces of leather in different colors and layering these with Japanese dyed and gilt papers.

DISTINGUISHED AUTHORS IN ASTRONOMY

NASA Unveils Asteroid 433 Eros

Lucy Mcfadden

Monday, May 22, 7:30p.m. Kaufmann Theater.

NASA's Near-Earth Asteroid Rendezvous (NEAR) spacecraft set off to study asteroid 433 Eros, one of the larger asteroids with an orbit approaching that of Earth, in February 1996. If all goes as planned, we will have images, spectroscopy, and other data from the body that will address our major questions about the history and composition of this asteroid: What is it? and What does it tell us about the history of solar system formation?

FRONTIERS IN ASTROPHYSICS

Sun and Solar Eclipses

Jay Pasachoff

Monday, May 15, 7:30p.m. Kaufmann Theater.

Jay Pasachoff, author of the *Peterson Field Guide to the Stars and Planets* and a veteran of 30 solar eclipses, will describe the wonders of the sun as observed on eclipse expeditions and from space.

Pasachoff will describe the most recent eclipses in Europe in 1999 and in the Caribbean in 1998, as well as space observations of the solarcorona. His lecture will be illustrated with slides and movies. Pasachoff, Field Memorial Professor of Astronomy at Williams College, Williamstown, Massachusetts, is chair of the Working Group on Eclipses of the International Astronomical Union.

Museum Hours

Exhibition Halls

Sun.–Thurs.	10:00 a.m.–5:45 p.m.
Fri. & Sat.	10:00 a.m.–8:45 p.m.

The Museum Library

Tues.–Fri.	11:00 a.m.–4:00 p.m.

Museum Dining

Museum Food Court

Sun.–Thurs.	11:00 a.m.–4:45 p.m.
Fri. & Sat.	11:00 a.m.–7:45 p.m.

Cafe on 4

Sun.–Thurs.	11:00 a.m.–4:45 p.m.
Fri. & Sat.	11:00 a.m.–7:45 p.m.

Cafe 77

Daily	11:00 a.m.–4:45 p.m.

Natural Science Center

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.

The Museum Shop

Mon.–Thurs.	10:00 a.m.–5:45 p.m.
Fri. & Sat.	10:00 a.m.–7:45 p.m.
Sun.	10:00 a.m.–5:45 p.m.

Parking

The three-story visitor parking garage is open; enter from West 81st Street. For public transportation and parking information, call (212) 313-PARK(7275). The Museum is well served by public transportation.

Central Reservation Cour

Rotunda
AM. MUS. NAT. HIST. LIBRARY
Received on: 05-05-2000

Program Name/Date # Members

_____

_____

_____

Total $ _____

Mr./Mrs./Miss/Ms. _____

Address _____

City State Zip

Telephone (Day) (Evening)

Membership No.

❑ Check ❑ Am.Ex. ❑ Visa ❑ Master Card

Credit Card Number Exp. Date

Signature

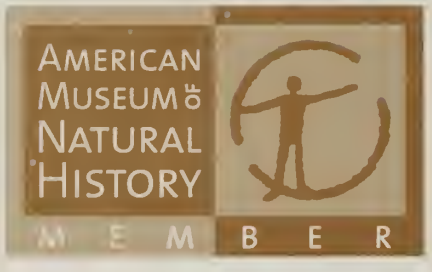
By Phone: Call (212) 769-5200 six days a week — Monday through Friday from 8:00 a.m. to 6:00 p.m. and Saturday from 10:00 a.m. to 6:00 p.m. Have your credit card and membership category ready when you call.
By Mail: Send the registration form below to Central Reservations, American Museum of Natural History, Central Park West at 79th Street, New York, N.Y. 10024-5192.
Make checks payable to the American Museum of Natural History.

Entrances

During Museum hours, visitors can enter the building through the 77th Street entrance, the 79th Street subway entrance, the first- and second-floor Roosevelt Memorial Hall entrances (79th Street and Central Park West), or through the West 81st Street Rose Center 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.

Membership Department,
Central Park West @ 79th Street
New York, New York 10024-5192
www.amnh.org



Please join us for a Members' Preview of *Fighting Dinosaurs*, Tuesday, May 23rd, 6–8:30 p.m.

rotunda

Vol. 25 No. 6 June 2000

Members' Newsletter

making dinosaurs

QH70
.U52
N5
v. 25
no. 6
Jun 2000

American Museum of Natural History

making dinosaurs

We stand before a vast open desert of shifting dunes. It is evening and a cool breeze drifts up from a winding river valley below. The moon begins it's ascent into clear blue sky as the first stars appear in the twilight. The presence of water in the landscape below has nurtured plant life along its banks, making the river appear as a ribbon of life in a harsh landscape. Though the scene is reminiscent of habitats we might see today, we are actually gazing at a world of long ago. Proof of this comes from over a nearby dune, where a strange creature appears.

Sprinting on its hind legs and covered with feathers like a large bird, it is both a dinosaur and a predator, and its appearance has created an immediate response of distress from the other creatures that share this Cretaceous landscape. The intruder, a *Velociraptor*, has been noticed and challenged by another dweller of this prehistoric world, a *Protoceratops*, which trumpets a call of alarm, turning to meet the potential threat. Other animals, such as an *Oviraptor* tending its eggs and a *Mononychus* foraging at a termite nest, are unaware of the danger nearby.

Real or illusion? The scene described is the most recent diorama created by the artists working in the Exhibition Department of the Museum for the new exhibition *Fighting Dinosaurs: New Discoveries from Mongolia*, on display in Gallery 3 through October 29.

Dioramas first appeared as a form of museum exhibition at the turn of the century. In the succeeding years, thanks to the creative vision of countless exhibition artists employed by the Museum, the diorama was elevated from the status of merely an exhibit element to a work of art.

Over the years, the Museum's Department of Exhibition has maintained a staff of talented artists who are trained in the unique skills required to create dioramas. Like their predecessors, they are dedicated to education through the use of their talents, whether that be sculpting, model-making, or painting. The motto of James Perry Wilson, one of the Museum's most noted background painters from 1934 through 1957, was "true art is to conceal art." Today's artists have carried on in this tradition, dedicating themselves to recreating nature as faithfully as possible, even at the expense of their own recognition.

Like past Museum artists such as Charles Knight, who during the early 1900s painted and sculpted prehistoric animals and landscapes, the contemporary artists must use their art and the fossil evidence to reconstruct creatures that have long been extinct.

The realism of the Exhibition Department's most recent diorama is a continuation of this grand artistic tradition. In fact, the illusion is so effective that the results are arresting.

The background painting for the *Fighting Dinosaurs* diorama is 50-feet long and is being executed by a young artist named Sean Murtha. Murtha has worked closely with Mark Norell, the exhibition's curator and the chair and curator of the Museum's Division of Paleontology, and Gerhard Schlanzky, the exhibition's designer.

"Dioramas are the ultimate virtual reality," Schlanzky notes. "At AMNH, we still have the ability to produce and utilize this powerful exhibit tool. In this exhibit, a diorama allows us to glimpse the Cretaceous era and pose questions answered later in the show. It is my job to lay out the geometry of the diorama and work with the exhibit team on the scenario depicted."

For his part, Murtha prefers to work in oils, since their slow drying time allows for ease in mixing colors. In order to paint the sky, he painted four bands of color, from the intense blue of the sky above to the warmer, lighter tones at the horizon. He then blended these bands carefully with a large stipple brush in order to create the even gradation of color from horizon to zenith.

Referring to his technique, Murtha comments, "I have adapted a technique used in some of the older dioramas for making stars. Wilson used slivers of glass to reflect the overhead light and appear to shine. But since this diorama is open and the viewer can approach from many angles, I needed a surface that would reflect in many directions. The solution was simple half-round pinheads, stuck through the canvas."

In building the foreground, the challenge was to render the same landscape as seen in the background painting, but in three dimensions. To do this, the first stage is like a cross between ship building and sculpture, in which a wooden frame made up of a series of ribs is constructed. Next, the

frame receives a skin of plaster, burlap, and the Museum's own special recipe for paper mache. The last layer is comprised of a combination of sand, glue, and paint meticulously applied. And the final detailing includes actual bits of Gobi Desert, collected by the Museum's recent expeditions. The crew responsible for creating the foreground was led by Alan Walker and includes Jack Cesareo, Tom Doncourt, Crystal Lee, Jason Brougham, and Sean Murtha.

Cover: Steve Bell adding detail to *Protoceratops*. Above: Jason Brougham working on *Protoceratops*. Above Right: Sean Murtha at work on the background painting. Below Left: Vivian Stillwell applying the finishing touches to the *Velociraptor*.
All Photos by Denis Finnin, AMNH.

rotunda

ISSN 0194-6110
Vol. 25, No. 6, June 2000

John Davey, Editor
Rosemary Caulk, Director of Membership
Lynn DeBow, Vice President for Development and Membership
Ellen V. Futter, President
Anne Sidamon-Eristoff, Chairman

Rotunda is published monthly, except for a combined issue in July/August, by the Membership Office of the American Museum of Natural History, Central Park West @ 79th Street, New York, N.Y. 10024-5192. Telephone: (212) 769-5606. Web address: www.amnh.org. Museum membership of $45 per year and up includes a subscription to *Rotunda*.

©2000 American Museum of Natural History.
Periodical postage paid at Rutherford, N.J., and at additional mailing offices. Postmaster: Please send address changes to *Rotunda*, Membership Office, AMNH, at the above address. Printed in the USA.

To create the exhibition's centerpieces, the dinosaurs, a team of sculptors from the Museum's Exhibition Department has spent the last few months reconstructing the three-dimensional, life-size, dinosaur models. Jason Brougham and Stephen Bell began the reconstruction of *Protoceratops andewsii* with measurements taken from the actual fossil skeletons collected by Roy Chapman Andrews during his expedition to Mongolia in the 1920s. These proportions were transferred to a steel armature. The anatomical form was then worked out from studies of related crocodilians and birds, and then sculpted in styrofoam and modeling epoxy. The final skin textures and details were based in part on recently recovered fossils of skin from *Triceratops*, a possible descendent of *Protoceratops*.

"In this project," Brougham says, "we tried to reinterpret the animal, starting from scratch with what the skeleton suggested and what the biology of the closest living relatives could tell us. There is a large visual culture of dinosaurs and the challenge was, at every point, to weigh the evidence anew. It wasn't our intention, but the result looks somewhat analogous to an antelope, which probably makes sense."

Vivian Stillwell has spent the last month meticulously applying feathers to a life-size model of *Velociraptor*. The most recent fossil discoveries have linked dinosaurs with modern birds so closely that paleontologists believe some dinosaur groups, the therapods, may have possessed feathers.

Stillwell's rendition of *Velociraptor's* feathering includes a shaggy crest and feathered arms and legs. She has used chicken and peacock feathers to arrive at an appearance that suggests that *Velociraptor's* feathers are an adaptation for temperature regulation.

"It was quite a challenge making a feathered *Velociraptor* look plausible," Stillwell admits. "Mark Norell and I tried to keep the colors toned down to mesh with the skin tones of the model."

Fossil discoveries of dinosaur nests suggest that baby dinosaurs may also have shared certain features with birds, such as an insulating covering of down. Joyce Cloughly has studied the downy covering of birds and spent hours carefully applying real down to models of a nest of baby *Oviraptors*.

Exhibition Production Manager Deborah Barral, whose job it is to coordinate the fabrication and installation of all the exhibit elements, concludes, "The big challenge is to match up the artists' skills with their assignments. Some artists are better at some things than at others. The AMNH is fortunate to have such an extremely talented group of artists who are able to carry on the practice of traditional diorama fabrication, while incorporating modern methods."

In recent years, the American Museum has designed new exhibits featuring state-of-the-art technologies and incorporating multimedia special effects. These exhibits have complimented–but never replaced–the popularity and appeal of the diorama and its effectiveness in educating Museum visitors about the wonders of the natural world–both past and present. The motto of the Exhibition Department artists, coined by James Perry Wilson, "True Art is to Conceal Art," is once again expressed so well by the contemporary artists working at the Museum.

Fighting Dinosaurs: New Discoveries from Mongolia is made possible through the support of the Lila Wallace-Reader's Digest Endowment Fund.

—Stephen C. Quinn, Senior Project Manager, Exhibitions

program listings

Photo: Tom Till

The Hayden Planetarium and the American Astronomical Society present a special Lecture on the Universe at the Rose Center for Earth and Space.

In celebration of its centennial last year, the American Astronomical Society, the governing body of the nation's professional astrophysicists, has begun a new program to bring news of current discoveries about the Universe to the general public. This Second Century Lecture series will be held in a variety of venues around the country over the next five years. The Rose Center is pleased to host the inaugural lecture on the evening of the summer solstice, June 20. The speaker will be the newly elected President of the Society, Anneila Sargent, professor of astronomy at the California Institute of Technology. Her topic will be "Stardust Connections," an exploration of the fundamental role the microscopic particles that suffuse space play in forming new stars and planets, and generating the molecules essential to life.

Anneila Sargent

Stars and their accompanying planetary systems are born in dense clouds of gas and dust that hide them from view for much of their early lives. As a consequence, interstellar dust appears to be merely an obstacle that impedes studies of star and planet formation. In fact, the tiny particles of ice, graphite, and silicate are critical components in forming stars, planets, and the organic molecules that may lead to life. And at infrared and radio wavelengths, we can detect and study emission from both the dust and gas surrounding newborn stars. Already, we have seen that often there are disks of dusty material encircling many very young, sun-like stars. Planet formation might just be beginning. Around some older sun-like stars, young planets may already exist. By studying the properties of a variety of star-disk systems, we can begin to answer a number of basic questions: What fraction of stars have these disks? How long do the disks last? How many will form planetary systems? How likely are solar systems like our own?

Professor Sargent received her undergraduate degree in Physics from the University of Edinburgh in her native Scotland. She then moved to Caltech for graduate school, and has remained there ever since. She currently serves as director of both the Institute's Owens Valley Radio Observatory and the Interferometry Science Center. Prof. Sargent has also been very active in charting NASA's space exploration program, including a four-year stint as chair of the NASA Space Science Advisory Committee; she also served as co-chair of Vice President Gore's Space Science Symposium in 1996. She was a member of the National Research Council's Panel which recently completed its decadal survey of Astronomy and Astrophysics. Having served the American Astronomical Society in several capacities over the last decade, she wa elected president of the 6000-membe Society last year.

The Lecture will take place at 7:30 p.m on June 20, and will conclude in time fr participants to be out under the evening skies for the Summer Solstice at 9:08 p.m. The Amateur Astronomy Association of New York will have telescopes available for viewing outsi the Rose Center after the lecture (weather permitting).

The Second Century Lectures are funded by the American Astronomical Society and hosted jointly by the Hayden Planetarium and by the Departments of Astronomy at Columbia University; admission is free of charge. However, as seats are limite it is essential to call for reservations (212-769-5200).

Pueblo Bonito, Chaco Canyon, NM

DEPARTMENT OF EDUCATION PROGRAMS

The Mystery of Chaco Canyon

Thursday, June 1, 7:00–8:30 p.m.

Fee: $12 each ($10 members, students and senior citizens). Program Code: ED20222L.

Ever since she discovered the "Sun Dagger" twenty years ago, Anna Sofaer and a team of researchers have been probing the enigma posed by the massive prehistoric ruins in Chaco Canyon, New Mexico. Now a new explanation of the mystery is emerging. For years archaeologists have assumed that Chaco was primarily an ancient trading center. This film suggests that it was, instead, a complex ceremonial center, characterized by extraordinary astronomical alignments of buildings and roads and elegant light and shadow markings. Aerial and time-lapse footage, computer modeling, and interviews with scholars show how the Chacoan culture oriented and located its major buildings in relation to the sun and moon. Contemporary Pueblo Indians, descendants of the Chacoans, speak of the spiritual significance of Chaco's mysteries to their world today. Anna Sofaer, the producer of this 56-minute film narrated by Robert Redford, introduces the film.

COSMIC CATASTROPHES: Stellar Collisions and Mergers

Thursday, June 1, 7:00–8:30 p.m.

IMAX® Theater. Free admission (Call 212-769-5200 to reserve a ticket). First come-first served seating to ticket holders. In conjunction with a scientific conference on stellar collisions, this public program will highlight the new research and perspectives on this cosmic phenomenon.

The Turtle Hunter

Wednesday, June 7, 7:00–8:30 p.m.

Fee: $12 ($10 members, students, senior citizens). Program Code: ED20223L.

Documentary film maker Jim Hubbard presents an engaging portrait of a southern woodsman whose modest livelihood depended in part on his skill in hunting giant, 100-pound, snapping turtles. We follow him as he searches the remote cypress swamps for his prey, and later brings them to market in New Orleans. The film harks back nearly forty years to a time and place where one's fortunes could fit into the hull of a tiny pirogue and a man could go to work barefoot. This quiet film offers a glimpse into a lifestyle that is no longer possible: the prehistoric-looking snapper is now a protected species.

Escape to Morocco

Photo: Simon Russell

Tuesday, June 13, 7:00–8:30 p.m.

Fee: $12 ($10 members, students, senior citizens). Program Code: ED20224L.

Pamela Windo and Simon Russell are a mother-and-son team who have traveled in Morocco since 1989, when Pamela first went there on a three-month sabbatical. Their journeys and treks took them from the Pillars of Hercules on the Mediterranean coast, through the Middle Atlas and High Atlas, down to the Erg Chebbi dunes in the Sahara. With the hospitality of the Moroccan people–from Berbers in mud villages to governors in refined palaces–and traveling by mule, Land Rover, local bus or hitchhiking, they discovered the myriad landscapes, architecture, festivals, and rituals this exotic country has to offer.

In their slide-illustrated talk, they draw on their experiences in this fascinating country, illustrating one-of-a-kind sights, unspoiled landscapes, electrifying folk festivals, unique out-of-the-way hostelries, as well as starry nights under tents in the desert. The book *Escape to Morocco* will be available for sale and signing.

CONTINUED ON PAGE 7

members' programs

Leaf-tailed Gecko photographed in Madagascar by Peter Tyson

WALKING TOURS

Led by Sidney Horenstein, geologist and coordinator of the Museum's Environmental Programs.

The Battery

Thursday, July 13, 10:00 a.m. or 12:00 noon

The Battery, located at the southern edge of Manhattan, provides a perfect vantage point for the study of the topography of the Upper Harbor. Walk along the shoreline to learn about the geology beneath this region, breathtaking in natural beauty and rich in history. Then turn inland, following the original shoreline of Manhattan Island, to explore historic buildings and sites as well as new ones built on landfill.

Cost: $18 members; $20 non-members. Code: MM7-1A (10:00 a.m.) or MM7-1B (12:00 noon).

Riverside Park

Thursday, July 20, 10:00 a.m. or 12:00 noon

From the Soldier's Monument on Riverside Drive, this walk will take us north, exploring the history and geology of the area. Learn the origins of the beautiful Hudson River, learn about the design, architecture, and history of the original Drive and Park, taking note of the addition created for it by Robert Moses several decades later. Finally, discover who is interred in the place where we end our journey–Grant's Tomb.

Cost: $18 members; $20 non-members. Code: MM7-2A (10:00 a.m.) or MM7-2B (12:00 noon).

Triboro Bridge

Thursday, July 27, 10:00 a.m.–2:00 p.m.

This four-hour stroll across the Triboro Bridge offers spectacular views of the Manhattan skyline, shoreline, and of Roosevelt Island. Walking along the shoreline of Randall's and Ward's Islands–home to the fire department's training center and a sewage treatment plant–you will learn why these two islands, once separated, were joined. The journey will take us to the dramatic confluence of the Harlem and East Rivers, known as Hell's Gate, for water-level views. Once there, we will watch vessels wind their way through the swift waters that give the Gate its name.

Cost: $30 members; $35 non-members. Code: MM7-3.

PREVIOUSLY LISTED

LECTURES

Is There a Science of History?

Wednesday, June 7, 7:00 p.m

One way historians have pursued history is to try to extract pattern, regularity, and direction from the details of history–that is, to try to erect a science of history. In this thought-provoking lecture, Museum anthropologist Robert Carneiro will address this issue and many smaller but interesting issues in history over which historians have long quarreled. Cost: $10 members; $12 non-members. Code: MM6-1. Linder Theater.

Life, Death, and Discovery in the Lost World of Madagascar

Wednesday, June 14, 7:00 p.m.

Madagascar, the world's fourth largest island, is a living laboratory unlike anyplace else on earth. Science writer and on-line producer Peter Tyson unveils the mysteries of Madagascar's past and explores the possibilities for its future.

Cost: $10 members; $12 non-members. Code: MM6-2. Kaufmann Theater.

CRUISE

Circling Staten Island

Saturday, June 24, 11:00 a.m. to 4:00 p.m.

Circumnavigate this geologically and historically fascinating part of New York City in the company of Sidney Horenstein, geologist and the Museum's coordinator of environmental programs. Our cruise passes Staten Island's high coastal hills of Kill Van Kull, and continues south into Raritan Bay, then onto Prall's Island, Hoffman and Swinburne Islands, and Shooter's Island, with its still visible wrecks and tidal flats. In addition, the cruise takes in Tottenville's historic lighthouses, along with unusual views of the Verrazano Narrows. Bring your own box lunch, but snacks are also available on board.

Cost: $45 members; $50 non-members. Code: ED20324X.

program listings

CHILDREN'S WORKSHOPS

asting Dinosaur Eggs

aturday, June 3, 1:00 p.m. or 4:00 p.m.

ising molds cast from actual *Oviraptor* ggs, children will make their own inosaur egg nest fashioned out of terra otta clay.

amela Popeson, artist and former director f the Museum's Fossil Reproduction epartment, will teach this educational nd fun-filled workshop. This program is or children of ages six to nine years.

ost: $20–members only. Room 319. Code: MM6-3A (1:00 p.m.) or MM6-3B (4:00p.m.)

Rex Teeth in Matrix

aturday, June 17, 1:00 or 4:00 p.m.

ecome a novice fossil hunter by xamining the teeth of a dozen different ossil species and discover what scientists an learn from their finds. In this one-and-half-hour workshop with Pamela opeson, artist and former director of the Museum's Fossil Reproduction epartment, you will create your own ossil of the legendary *Tyrannosaurus Rex*. his workshop is appropriate for children f ages 7 and up.

ost: $20. Room 319. Code: MM6-4A (1:00 .m.) or MM6-4B (4:00 p.m.).

PARENT/CHILD WORKSHOP

dopt an Alien

aturday, June 24, 10:30 a.m. or 2:00 p.m.

oin artist June Myles for a chance to nvent your own "alien," by using a variety f earthbound materials to create a mask f your space being. It will be up to you to evelop a history of origin of your adopted lien.

his workshop is appropriate for children f five years or older, accompanied by qually mature adults. Cost: $28 per dult/child couple–members only. Code: MM6-5A (10:30 a.m.) or MM6-5B (2:00 .m.). *Room 319.*

DEPARTMENT OF EDUCATION PROGRAMS CONTINUED FROM PAGE 5

The Earth Around Us

Thursday, June 15, 7:00–8:30 p.m.

Fee: $12 each ($10 members, students and senior citizens).
Program Code: ED20225L.

Jill S. Schneiderman, associate professor of Geology at Vassar College, presents a discussion of the major issues in the newly published book *The Earth Around Us: Maintaining a Livable Planet*. The work, of which she is the editor, addresses issues of global warming, water pollution, and coastal erosion, as well as the question: Have we reached the limits of our planet's ability to provide for us? The book will be available for purchase and signing

Amazing Graces: A Sticks and Stones Presentation

Friday, June 16, 7:00–8:00 p.m.

Free.

Author Bara Caseley Swain returns to the Museum with another engaging evening of colorful vignettes in celebration of today's women. A fortune-teller, a young mother, and a woman with poor impulse control are among the cast of characters. Woven with compassion and a sense of humor, Amazing Graces promises to embody the intrinsic alliances that women share. The performance will be signed and spoken.

Arthur Marks Walking Tours

Fee: $12 per tour ($10 members, students, senior citizens).

Say Hello to the New Times Square

Sunday, June 4, 10:00 a.m.–12:00 noon. Program Code: ED20319X.

We'll visit the "new" Great White Way, viewing the gloriously restored New Victory and New Amsterdam theaters, the Warner Brothers building; view the spectacular electric signs and see how the area has reinvented itself from an architectural and social standpoint.

Gramercy Park and Edith Wharton

Sunday, June 11, 10:00 a.m.–12:00 noon. Program Code: ED20320X.

This tour will take us back to such 19th-century literary giants as Edith Wharton, Henry James, and Herman Melville. We will see where they lived, played, and prayed. Stops will include the Players Club, designed by Stanford White, the National Arts Club, Calvery Church, and Gramercy Park.

Boat Cruises With Sidney Horenstein

Geology Cruise Up the Hudson River

Tuesday, June 6, 6:00–9:00 p.m. Fee: $35 ($31.50 members, students, senior citizens). Program Code: ED20322X.

Geology Cruise Around Manhattan

Tuesday, June 13, 6:00–9:00 p.m. Fee: $35 ($31.50 members, students, senior citizens). Program Code: ED20323X.

june

Current Exhibits

Fighting Dinosaurs: New Discoveries From Mongolia
Through October 29

Mongolia Observed: Photographs Present And Past
Through September 4

Full Moon
Through September 23

The Collector As Bookbinder: The Piscatorial Bindings of S.A. Neff, Jr.
Through June 25

Monday	Tuesday	Wednesday	Thursday
			1 The Mystery of Cha Canyon Education Film *7:00–8:30 p.m.* Cosmic Catastrophes Special Lecture *7:00–8:30 p.m.*
5 Hall of the Universe Spotlight Tour *12:45 p.m.* Rose Center Spotlight Tour *2:45 p.m.*	**6** A Short History of the Planet Earth Spotlight Tour *2:45 p.m.* Geology Cruise up the Hudson River Boat Cruise *6:00–9:00 p.m.*	**7** Is There a Science of History Members' Lecture *7:00 p.m.* The Turtle Hunter Education Film *7:00–8:30 p.m.*	**8**
12 Hall of the Universe Spotlight Tour *12:45 p.m.* 500 Million Years of Evolution Spotlight Tour *1:45 p.m.* Rose Center Spotlight Tour *2:45 p.m.*	**13** Geology Cruise Around Manhattan Boat Cruise *6:00–9:00 p.m.* Escape to Morocco Education Program *7:00–8:30 p.m.*	**14** Life, Death, and Discovery in the Lost World of Madagascar Members' Lecture *7:00 p.m.*	**15** The Earth Around U Education Progra *7:00–8:30 p.m.*
19 Hall of the Universe Spotlight Tour 12:45 *p.m.* Rose Center Spotlight Tour *2:45 p.m.*	**20** A Short History of the Planet Earth Spotlight Tour 2:45 *p.m.* American Astronomical Society Lecture *7:30 p.m.*	**21**	**22** Awakenings Revisit With Oliver Sacks Film, Code: Mead o *7:00–8:30 p.m.*
26 Hall of the Universe Spotlight Tour 12:45 *p.m.* Rose Center Spotlight Tour 2:45 *p.m.*	**27** Linnaean Society Meeting Topic: Birds of the Northeast *7:30 p.m.*	**28**	**29**

tarry Nights: Fridays Under the Sphere

ome see some of the brightest stars in the jazz constellation as they perform very Friday evening from 6–8:00 p.m. in the Rose Center for Earth and Space. he music is free with suggested Museum admission, and items from an xtensive tapas and beverage menu are available for purchase.

iday	Saturday	Sunday
2 Starry Nights: Fridays Under the Sphere Jazz Performance *6:00–8:00 p.m.*	**3** Extinction is Forever Spotlight Tour *12:45 p.m.* Casting Dinosaur Eggs Members' Children's Workshop *1:00 p.m. or 4:00 p.m.*	**4** Say Hello to the New Times Square Education Walking Tour *10:00 a.m.–12:00 noon* Destination: Planet Earth Children's Program, Ages 8–9, Code: ED20409 *10:30 a.m.–1:30 p.m.* Digging Up the Past Children's Program, Ages 9-10, Code: Ed20416 *10:30 a.m.–1:30 p.m.*
9 Starry Nights: Fridays Under the Sphere Jazz Performance *6:00–8:00 p.m.*	**10**	**11** Gramercy Park and Edith Wharton Education Walking Tour *10:00 a.m. to 12:00 noon* Crime Lab Investigation Children's Program, Ages 8–9, Code: Ed20417 *10:30 a.m.–1:30 p.m.*
16 Starry Nights: Fridays Under the Sphere Jazz Performance *6:00–8:00 p.m.* Amazing Graces Education Program *7:00–8:00 p.m.*	**17** Wild Dogs in Life and Legend Spotlight Tour *12:45 p.m.* T. Rex Teeth in Matrix Members' Children's Workshop *1:00 or 4:00 p.m.*	**18**
23 Starry Nights: Fridays Under the Sphere Jazz Performance *6:00–8:00 p.m.*	**24** Adopt an Alien Members' Parent/Child Workshop *10:30 a.m.or 2:30 p.m.* Circling Staten Island Boat Cruise *11:00 a.m.–4:00 p.m.*	**25** Fabulous Felines Spotlight Tour *1:45 p.m.*
Starry Nights: Fridays Under the Sphere Jazz Performance *6:00–8:00 p.m.*		

Phone Numbers at Your Fingertips

Museum Information	(212) 769-5100
Membership Office	(212) 769-5606
Planetarium Information	(212) 769-5900
Members' Birthday Parties	(212) 769-5154
Education Department	(212) 769-5304
Planned Giving Office	(212) 769-5119
Discovery Tours	(212) 769-5700
*toll-free	(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

Website: http://www.amnh.org

museum notes

Photo by Robert Peck

A Century of Photographs of Life in Mongolia

Mongolia Observed: Photographs Present and Past, an exhibition of 45 stunning large format color and black-and-white photographs in the Akeley Gallery, offers visitors a look at contemporary life in Mongolia as well as a glimpse of Mongolian culture in the early 20th century. On view through September 4, the images provide insight into the tenacity of Mongol Culture and the nomad way of life over the past eighty years.

The exhibition's early photographs, dating between 1919 and 1925, were shot by members of the American Museum of Natural History's Second and Third Central Asiatic Expeditions Mongolia, led by famed explorer Roy Chapman Andrews. Photographs from the 1990s are by writer, photographer, and naturalist Robert McCracken Peck, who has been documenting the lives of Mongolia's nomads and other aspects of Mongolian life since 1994. Peck, a fellow of the Academy of Natural Sciences of Philadelphia, traveled throughout the country, seeking out families and individuals who are carrying on their cultural traditions.

Mongolia Observed: Photographs Present and Past, which is curated at the Museum by Laurel Kendall, curator in the Division of Anthropology, and guest-curated by Peck, sheds light on the everyday lives of the people of Mongolia, focusing on three themes important in Mongolian culture: nomadism, religion, and *Naadam*, the Mongolian national festival that includes competitions in wrestling, horse racing, and archery.

Nomadic life is revealed through striking portraits, photographs of families living in traditional *Gers*, or large tents, and images of common day-to-day activities. Religious life is portrayed through pictures of Buddhist monks and temples, and shaman rituals still practiced in Mongolia today. And scenes from a *Naadam* tournament show fierce competitors and spectators enjoying the rich social life that has revolved around Mongolia's most important cultural event, celebrated for centuries.

Historically, as highly effective mounted warriors, Mongols conquered much of Asia and administered a vast empire from the 13th to the 15th century. From the 17th century until 1911, Mongolia was part of the Manchu confederation. In 1921, a revolutionary Mongolia established close ties with the Soviet Union, and a democratic government came to power in 1990.

The communist period brought profound changes, from the persecution of Buddhism to the establishment of heavy industry, and the exhibition illustrates how Mongolian culture has fared in the face of these changes.

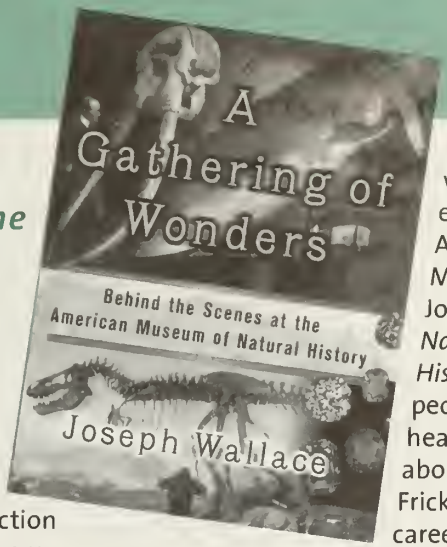
The photographs in the exhibition look at Mongolia from just before, in the early years of, and after the communist experience, thus documenting common themes that suggest a revitalized nomadic identity.

Thus, with the aid of the vivid photographs on view in *Mongolia Observed: Photographs Present and Past*, Museum visitors will be able to journey to a fascinating, distant land, experiencing along the way everything that Roy Chapman Andrews and Robert McCracken Peck so carefully recorded.

Mongolia Observed: Photographs Present and Past was made possible by the Arthur Ross Foundation.

Gathering of Wonders: Behind the Scenes at the American Museum of Natural History

By Joseph Wallace



A visit to the American Museum of Natural History opens up a world of wonders–glorious dioramas that freeze a natural moment, the world's finest collection of dinosaur fossils, magnificent gems, art and artifacts from ancient and contemporary cultures. These displays are what visitors see. But what about what we don't see?

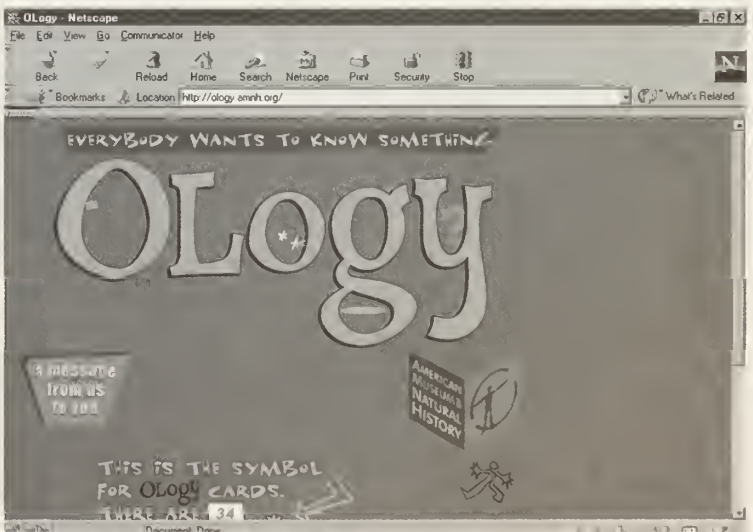
Behind the scenes at the Museum, scientists are engaged in research in almost every field of natural science and anthropology. *In A Gathering of Wonders*, Joseph Wallace, the author of several books on science, takes us to the offices and research labs of the Museum. Here we see scientists preserving the remains of the past and fighting to preserve the future of the planet and its great diversity. Meet Frank M. Chapman, who fought the feather trade that was driving herons and egrets to extinction almost one hundred years ago, and Carl Akeley, who conceived the dramatic Hall of African Mammals and also, in the 1920s, spearheaded the movement to establish one of the first true wildlife sanctuaries in Africa, where animals were protected and scientists could study them in their natural habitat.

Behind the scenes, there are scientists who devoted their life's work to the Museum. Mary Cynthia Dickerson was the first curator of herpetology, a self-made naturalist who was invited to join the Museum's Department of Woods and Forestry even though she lacked an advance degree and who was also editor of the American Museum Journal (later *Natural History*). Few people have heard much about Childs Frick, either. In a career that spanned more than fifty years, he financed a lab and many expeditions to excavate mammalian fossils–but kept his private collection of 250,000 to 500,000 specimens closed to most other scientists. To house the collection, which was ultimately given to the Museum, the construction of a ten-story building was required.

"I can't begin to enumerate all the riches, tidbits, stories, information, personalities, gossip, and love of science embraced by the fascinating volume," writes John T. Nichols, author of *The Milagro Beanfield War* and a child of the Museum himself, in his affectionate Foreword. *A Gathering of Wonders* opens the door on many previously private corners of the Museum, as well as on the stories behind its treasures. Come right in.

Ology

The Museum's new Web site for kids. Through interactive interviews, feature stories, and games, kids get a peek into what makes scientists tick, highlighting their adventures behind the scenes, in the field, and in the lab. Dig into Ology at **www.ology.amnh.org**.



Spotlight Tours

Tours begin at the entrance to the Akeley Hall of African Mammals, on the second floor.

Rose Center
June 5, 12, 19; 2:45 p.m.

Explore the observable Universe in our new Rose Center for Earth and Space

500 Million Years of Evolution
June 12; 1:45 p.m.

Tour of the fourth-floor fossil halls.

Extinction is Forever
June 3; 12:45 p.m.

The causes of extinction and new techniques that attempt to halt it.

A Short History of the Planet Earth
June 6, 20; 2:45 p.m.

Trace the history of the Earth from its origins to the present.

Hall of the Universe
June 5, 12, 19, 26; 12:45 p.m.

Sharks: Denizens of the Deep
June 24; 12:45 p.m.

Fascinating facts, oddities and myths.

Fabulous Felines
June 25; 1:45 p.m.

Museum Hours

Exhibition Halls

Sun.–Thurs.	10:00 a.m.–5:45 p.m.
Fri. & Sat.	10:00 a.m.–8:45 p.m.

The Museum Library

Tues.–Fri.	11:00 a.m.–4:00 p.m.

Museum Dining

Museum Food Court

Sun.–Thurs.	11:00 a.m.–4:45 p.m.
Fri. & Sat.	11:00 a.m.–7:45 p.m.

Cafe on 4

Sun.–Thurs.	11:00 a.m.–4:45 p.m.
Fri. & Sat.	11:00 a.m.–7:45 p.m.

Cafe 77

Daily	11:00 a.m.–4:45 p.m.

Natural Science Center

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.

The Museum Shop

Mon.–Thurs.	10:00 a.m.–5:45 p.m.
Fri. & Sat.	10:00 a.m.–7:45 p.m.
Sun.	10:00 a.m.–5:45 p.m.

Parking

The three-story visitor parking garage is open; enter from West 81st Street. For public transportation and parking information, call (212) 313-PARK(7275). The Museum is well served by public transportation.

Central Reservation Coupon

Program Name/Date # Members

_____

_____

_____

Total $

Mr./Mrs./Miss/Ms.

Address

City State Zip

Telephone (Day) (Evening)

Membership No.

❑ Check ❑ Am.Ex. ❑ Visa ❑ Master Card

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.

Rotunda
AM. MUS. NAT. HIST. LIBRARY
Received on: 06-09-2000

Entrances

During Museum hours, visitors can enter the building through the 77th Street entrance, the 79th Street subway entrance, the first- and second-floor Roosevelt Memorial Hall entrances (79th Street and Central Park West), or through the West 81st Street Rose Center 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.

Membership Department,
Central Park West @ 79th Street
New York, New York 10024-5192
www.amnh.org

AMERICAN MUSEUM OF NATURAL HISTORY
MEMBER

rotunda

Vol. 25 No. 7 July/August 2000

Members' Newsletter

starry nights: fridays under the sphere

QH70
.U52
N5
v. 25
no. 7
Jul-Aug
2000

American Museum of Natural History

summer institutes

Go behind-the-scenes of the new Rose Center for Earth and Space with Museum scientists and educators

This year, the Educators' Evening Institutes on Earth and Space Sciences will offer educators the opportunity to go behind-the-scenes of the new Rose Center for Earth and Space with Museum scientists and educators.

The summer Institutes at the Museum seek to broaden educators' content knowledge in earth, space, and life science. Audiences include science teachers (K–12), science coordinators and department heads, college instructors, and informal science educators.

The Space Science Program–running July 5th through 7th–will focus on the large scientific concepts and practical educational uses of the Rose Center, addressing such engaging topics as our cosmic address, the size of the observable universe, the "Big Bang" theory, the formation of stars and elements, and the origins of the universe.

The Earth and Space Science Program–running July 26 through 28th–will include major aspects of the Space Institute and will explore the scientific questions that guided the development of the Gottesman Hall of Planet Earth. Questions such as: How has the Earth evolved? Why is the Earth habitable? How do we read the rocks? Why are there mountains, ocean basins, and continents? And what causes climate and climate change?

Day One of each Institute will focus on the work of the scientists from the Department of Earth and Planetary Sciences and the newly formed Astrophysics Department. Museum scientists will introduce the Rose Center to educators and offer a series of demonstrations and keynote sessions. Day Two will concentrate on inquiry-based instructional strategies, including workshops, model-making sessions, labs, and demonstrations of the Museum's technology resources.

Day Three will focus on how to use the Museum itself as a teaching aid for students. Participants will take simulated field trips, develop strategies for teaching with objects, and gain a deeper understanding of the other Museum halls that complement the Rose Center, including the Hall of Meteorites and the Hall of Minerals and Gems.

Past Institute participants glowingly describe the excitement of summer study in the Museum's cultural and scientific environment. Other participants note the usefulness of the resources they received, which include membership to the Museum, printed materials and guides, films, and other teaching resources.

For more information about the Educators' Evening Institutes on Earth and Space Sciences, please call Central Reservations at 212-769-5200, or Dr. Maritza Macdonald, Director of Professional Development, at 212-769-5182.

From July 31st through August 11th, the Museum, in association with the Woodrow Wilson Foundation and PACE University, will also offer a Biodiversity Institute for New York City Public School biology teachers.

Cover: Ray Vega's Latin Jazz Sextet playing Starry Nights: Fridays Under the Sphere (see story, page 4). Left: Woodrow Wilson Institute participants in the field. Above Right: Sidney Horenstein leading a field trip from last summer's Institute.

The Institute is designed to support educators in the implementation of the Regents Level Curriculum for the Living Environment by featuring the scientists, halls, and resources related to the Hall of Biodiversity.

For more information on this program, please visit http:// www.woodrow.org /teachers/.

Both programs offer educators an opportunity to experience science from the unique perspective of Museum scientists and educators–a perspective, and the passion that accompanies it, which they can share with their own students.

The American Museum of Natural History gratefully acknowledges contributions by John and Caroline Macomber for professional development programs.

rotunda

ISSN 0194-6110
Vol. 25, No. 7, July/August 2000

John Davey, Editor
Rosemary Caulk, Director of Membership
Lynn DeBow, Vice President for Development and Membership
Ellen V. Futter, President
Anne Sidamon-Eristoff, Chairman

Rotunda is published monthly, except for a combined issue in July/August, by the Membership Office of the American Museum of Natural History, Central Park West @ 79th Street, New York, N.Y. 10024-5192. Telephone: (212) 769-5606. Web address: www.amnh.org. Museum membership of $45 per year and up includes a subscription to *Rotunda*. ©2000 American Museum of Natural History. Periodical postage paid at Rutherford, N.J., and at additional mailing offices. Postmaster: Please send address changes to *Rotunda*, Membership Office, AMNH, at the above address. Printed in the USA.

Did You Know?

That the Museum's Department of Earth and Planetary Sciences' Petrology Laboratory is equipped with several one-atmosphere furnaces and an internally heated pressure vessel (IHPV) that are capable of routine operation to temperatures of 1200° Centigrade (roughly 2200° Fahrenheit).

The IHPV also applies pressure to experimental samples and is capable of reaching a pressure roughly equivalent to that on a rock more than 15 miles below the Earth's surface (roughly 95,000 pounds-per-square-inch).

Petrology is the science that deals with the origin, history, structure, and classification of rocks. The Museum's petrology collection consists of several thousand hand samples and a number of drill cores from around the world. This collection is primarily used for research and parts of it are available for loan to researchers outside the Museum.

The Department of Earth and Planetary Sciences curates the Museum's world-renowned collections of minerals and gems, meteorites, and rocks, including systematic collections of ore deposits. Its staff members conduct research exploring the nature of terrestrial and planetary processes.

program listings

SEQUENCING THE HUMAN GENOME: NEW FRONTIERS IN SCIENCE AND TECHNOLOGY

September 22, 9:00 a.m. to 5:45 p.m., & September 23, 9:00 a.m. to 5:45 p.m.

The completion of the "first draft" of the human genome, like the first Moon landing, marks the beginning of a new era for science and technology, raising important questions about the social and economic impacts of advancing genetic technologies and their effect on our understanding of natural history. Organized by the Museum's Molecular Program, this free two-day conference will be the first major public forum following the release of the draft sequence to explore the implications of the Human Genome Project. Renowned scientists, bioethicists, biotechnology entrepreneurs, and others will participate in lectures and panel discussions. Confirmed speakers include Dr. Arthur Caplan (University of Pennsylvania), Dr. Troy Duster (University of California, Berkeley), Dr. Stephen J. Gould (Harvard University and New York University), Dr. Eric Green (National Human Genome Research Institute), Dr. William Haseltine (Human Genome Sciences), Dr. Leroy Hood (University of Washington), Dr. Mary-Claire King (University of Washington), Dr. Harold Varmus (Memorial Sloan Kettering Cancer Center), and Dr. James Watson (Cold Spring Harbor Laboratory). Journalists Nicholas Wade of the *New York Times* and Michael Waldholz of the *Wall Street Journal* will be among the moderators.

A full schedule will be available at the AMNH Web site, http://www.amnh.org. The conference is free to the public, but reservations are required. For reservations, please call 212-769-5200 and mention Program Code GENOME2K.

CELESTIAL JAZZ

The weekly jazz series, Starry Nights: Fridays Under the Sphere, launched on Friday, April 14, with the renowned jazz drummer Chico Hamilton and Euphoria.

Every Friday evening from 6:00 to 8:00 p.m., a stellar line-up of top jazz musicians performs under the Hayden Sphere at the Rose Center for Earth and Space. The music is free with suggested Museum admission and a tapas and beverage menu is available for purchase.

The delicious assortment of authentic tapas on hand for Starry Nights includes herb grilled-shrimp with a Romesco sauce of peppers, chilies, almonds, and garlic; marinated spring asparagus wrapped with Spanish Serrano ham; and buttery and nutty Spanish cheeses, served with dried fruit, walnuts, and breads. There is also grilled skewered chicken served with orange and sherry chutney, and assorted Spanish black and green olives. Drinks include sangria, a selection of American and Spanish red, white, and sparkling wines, imported beers, Spanish Amontillado sherry, coffee, soda, and waters.

New Yorkers and visitors alike have embraced the Rose Center for Earth and Space as a thrilling cultural, scientific, and educational center–both in form and function. Now, with the addition of Starry Nights: Fridays Under the Sphere, visitors are enjoying the Museum as a fantastic place to socialize and enjoy live music and great food, as well.

IMAX

To Be An Astronaut

Follow the exciting story of astronaut training as the entire NASA team prepares for space travel. Experience the simulated drama of in-flight situations, from zero gravity training to every possible malfunction the ground crew can devise. Shot entirely on location, *To Be An Astronaut* takes audiences inside the gates of NASA to experience the rigors of training, through the frantic countdown of missions, to the heart-stopping launch into space.

Running time: 25 minutes.

Scene from *To Be An Astronaut*

Museum Spotlight

Heather Sloan: Geologist

Standing in the Gottesman Hall of Planet Earth, one does not get the feeling that nature and geology have been artificially created for display. Instead, the triumph of the Hall's design is that it transports the visitor into the middle of the natural world by means of a totally visceral experience. Sight, sound, and touch coalesce into an exhibition full of amazing encounters. Watching the streaming video on the Earth Event Wall, seeing the bubbling black smokers, touching the granite gneiss fault, and hearing the rumbling of the Earth's crust are all exhilarating. The Hall is both a scientific and aesthetic achievement, which is due in part to the work of Heather Sloan, museum research scientist and coordinator for the Gottesman Hall of Planet Earth.

An upstate New Yorker by birth and a Parisian at heart (she received her Ph.D. in Marine Geophysics from the University of Paris), Sloan spent three years working on the Hall. Her chief responsibility was coordination of the acquisition of all exhibit specimens. This was a departure for the Museum. Traditionally, Museum exhibits are collections-based, but for the Hall of Planet Earth, all acquisitions were science-driven. That is, if the Museum didn't have a particular specimen in its collection, then Sloan was charged with finding it. In the course of accomplishing this task, Sloan and the acquisition expedition teams logged thousands of miles through 25 countries and 5 regions of the sea floor.

Sloan's collecting adventures took her to Mauritania in search of stromatolites. There Sloan spent seven days in the field searching for the right specimen and eventually found a 760-kilogram stromatolite. Stromatolites are fossil remnants of algae colonies that were present on Earth as early as 2.8 billion years ago. Their importance in Earth's history cannot be underestimated–the algae in stromatolites permanently altered the oxygen content in Earth's atmosphere to near current levels. Without that contribution, life might never have evolved as we know it. After one broken rental truck, Sloan and the crew (now supplemented by many onlookers and curiosity seekers) loaded the huge rock into a tiny Toyota truck and managed to make it back to the city–12 hours away.

One of Sloan's favorite pieces in the exhibit is the granite gneiss fault. Sloan had hoped that bringing a fault into the Hall would give visitors an intuitive feel for what a fault is. The fault was discovered accidentally on the way home from a few days of collecting in upstate New York. On the way to get ice cream, Sloan spotted the piece underneath an overpass.

"Road cuts," Sloan says, "are a geologists blessing," as they expose normally buried rock.

The process of removing the fault was tedious and backbreaking. Before the rock could be removed, proper permits needed to be approved by state agencies. Only then could Sloan and her team return to the field with pry-bars and lots of epoxy glue. Epoxy is the geologist's equivalent of formaldehyde. It preserves large rocks intact even after what are oftentimes violent removals from hillsides and other geological structures. The epoxy was injected into every nook and cranny of the fault by syringe–a process that took days. Back at the Museum, curators prepared and mounted the fault for exhibition.

Sloan always liked collecting rocks. As a child, she had an interest in shells and fossils, too, and from a young age knew that she would grow up to be either a geologist or an anthropologist. On family trips her mother was even forced to impose a limit of one shoebox full of specimens per trip upon her young naturalist daughter. Sloan still finds interesting specimens among her childhood collection, now gathering dust in her mother's attic.

However, her love of rocks outlasted her interest in fossils, and by the time she got to college her commitment to geology was, pardon the pun, rock solid. She received a B.S. in geology with honors from SUNY Albany, and then moved west to study Marine Geology at U.C. Santa Barbara. She completed her doctoral work in Paris, and returned to the U.S. to work here at the Museum.

With the Hall completed, Sloan is now a content specialist in the Museum's Department of Education. There she works on a number of projects, including the development of Earth science content support for high school teachers, in addition to which she designs Masters-level Earth science courses. Through this work, Sloan has had the opportunity to put teachers in contact with field scientists–a process she believes will enhance the quality of secondary science education.

Sloan is coy about her future. She doesn't get to spend as much time in the field as she'd like these days. But that's OK. She knows she'll return, and when she does, she hopes it's back to the bottom of the ocean where she would like to continue her pre-Museum work on the structure of the ocean floor.

You can join Sloan and her colleagues on a virtual tour of the construction of the Gottesman Hall of Planet Earth on the Museum's Web site (www.amnh.org/rose/hope/creatinghope/). But you'd be best off coming to the Museum to experience the collection for yourself.

—Michael Yudell, AMNH

members' programs

MEMBERS' EXPEDITION

Fossil Collecting in Pennsylvania

Thursday, August 10, 8:30 a.m. to 5:00 p.m.

Join Sidney Horenstein, geologist and the Museum's coordinator of environmental programs, for a fascinating day exploring the geological history of eastern Pennsylvania. Our first stop will be the Delaware Water Gap National Recreation Area for a walk along the Delaware and an introduction to the geology of the area. As we continue into Pennsylvania, we will collect fossils at various sites, some of which date back over 360 million years to the Devonian age. Pack your rock hammer, collecting bag, and a picnic lunch and board our charter bus which will leave the Museum at 8:30 a.m.

Cost: $65 members; $75 non-members. Code: MM8-1.

MAP MAKING WORKSHOP

Making Maps

Tuesday, September 26 AND Wednesday, September 27, 6:00 p.m.

Do you own property with many acres? Would you like to create a nature trail? Or simply learn how to make maps? For people who tend to get lost, learning how to make a map is a step in correcting that deficiency.

Here is your opportunity to learn how to make a quick, relatively accurate map of your holdings(or of nearby Manhattan topography) with very simple tools. Using a compass and your stride, you will also learn how to create topographic maps, measure the heights of trees (without climbing them) and lampposts, and plot the positions of objects encompassed by your map. Part of the fun of this program is working with others to create the map. This two-part workshop, taught by Sidney Horenstein, geologist and the Museum's coordinator of Environmental Programs, will take place out-of-doors so that we can create our map in an actual setting.

Materials required: clip board, pencil, eraser, ruler.

Cost: $48 members; $58 non-members for 2 workshops. Code: MM9-1.

PREVIOUSLY LISTED

WALKING TOURS

Led by Sidney Horenstein, geologist and coordinator of the Museum's Environmental Programs.

The Battery

Thursday, July 13, 10:00 a.m. or 12:00 noon

The Battery, located at the southern edge of Manhattan, provides a perfect vantage point for the study of the topography of the Upper Harbor. Walk along the shoreline to learn about the geology beneath this region, breathtaking in natural beauty and rich in history. Then turn inland, following the original shoreline of Manhattan Island, to explore historic buildings and sites as well as new ones built on landfill.

Cost: $18 members; $20 non-members. Code: MM7-1A (10:00 a.m.) or MM7-1B (12:00 noon).

Riverside Park

Thursday, July 20, 10:00 a.m. or 12:00 noon

From the Soldier's Monument on Riverside Drive, this walk will take us north, exploring the history and geology of the area. Learn the origins of the beautiful Hudson River, learn about the design, architecture, and history of the original Drive and Park, taking note of the addition created for it by Robert Moses several decades later. Finally, discover who is interred in the place where we end our journey–Grant's Tomb.

Cost: $18 members; $20 non-members. Code: MM7-2A (10:00 a.m.) or MM7-2B (12:00 noon).

Triborough Bridge

Thursday, July 27, 10:00 a.m.–2:00 p.m.

This four-hour stroll across the Triborough Bridge offers spectacular views of the Manhattan skyline, shoreline, and of Roosevelt Island. Walking along the shoreline of Randall's and Ward's Islands–home to the fire department's training center and a sewage treatment plant–you will learn why these two islands, once separated, were joined. The journey will take us to the dramatic confluence of the Harlem and East Rivers, known as Hell's Gate, for water-level views.

Cost: $30 members; $35 non-members. Code: MM7-3.

DEPARTMENT OF EDUCATION PROGRAMS

Fall Bird Walks in Central Park

Eight Tuesdays, September 5 to October 24, 7:00–9:00 a.m. (Code: ED00325X)

or

Eight Wednesdays, September 6 to October 25, 7:00–9:00 a.m. (Code: ED00326X)

or

Eight Thursdays, September 7 to October 26, 9:00–11:00 a.m. (Code: ED00327X)

Fee: $65 for each series.

Limited to 25 persons 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. You must register at least one week in advance.

Please note: Walks start across from the Museum on the northeast corner of Central Park West and 77th Street.

South Street Seaport: The Life and Times of the Port

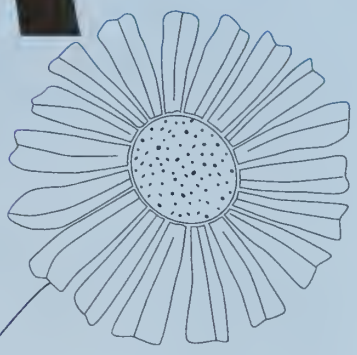
Saturday, September 16, 10:00 a.m.–12 noon (ages 11, 12, and 13). Code: ED00419C. Fee: $20.

Visit New York Harbor's 11-square-block historic district of 18th- and 19th-century buildings, the sight of a once thriving port of clipper ships, sailors, and soup kitchens. Discover the life and spirit of today's old East River port, including a visit to the ships.

Marine Biologist and lecturer in the Museum's Department of Education Lisa Breslof leads a walking and history tour of lower eastside Manhattan from Pearl to Dover Street.

THE MUSEUM SHOP

SUMMER SALE EVENT



33-50% OFF
SELECTED MERCHANDISE
IN ADDITION TO MEMBERSHIP DISCOUNT

A GIFTED IDEA

Sale runs June 30th through September 4th Central Park West at 79th Street New York City Shop hours: Sun.-Thurs. 10:00 a.m.-5:45 p.m., Fri.-Sat. 10:00 a.m.-8:45 p.m. Shop by phone: 212.769.5150 www.amnh.org

july

Current Exhibits

Fighting Dinosaurs: New Discoveries From Mongolia
Through October 29

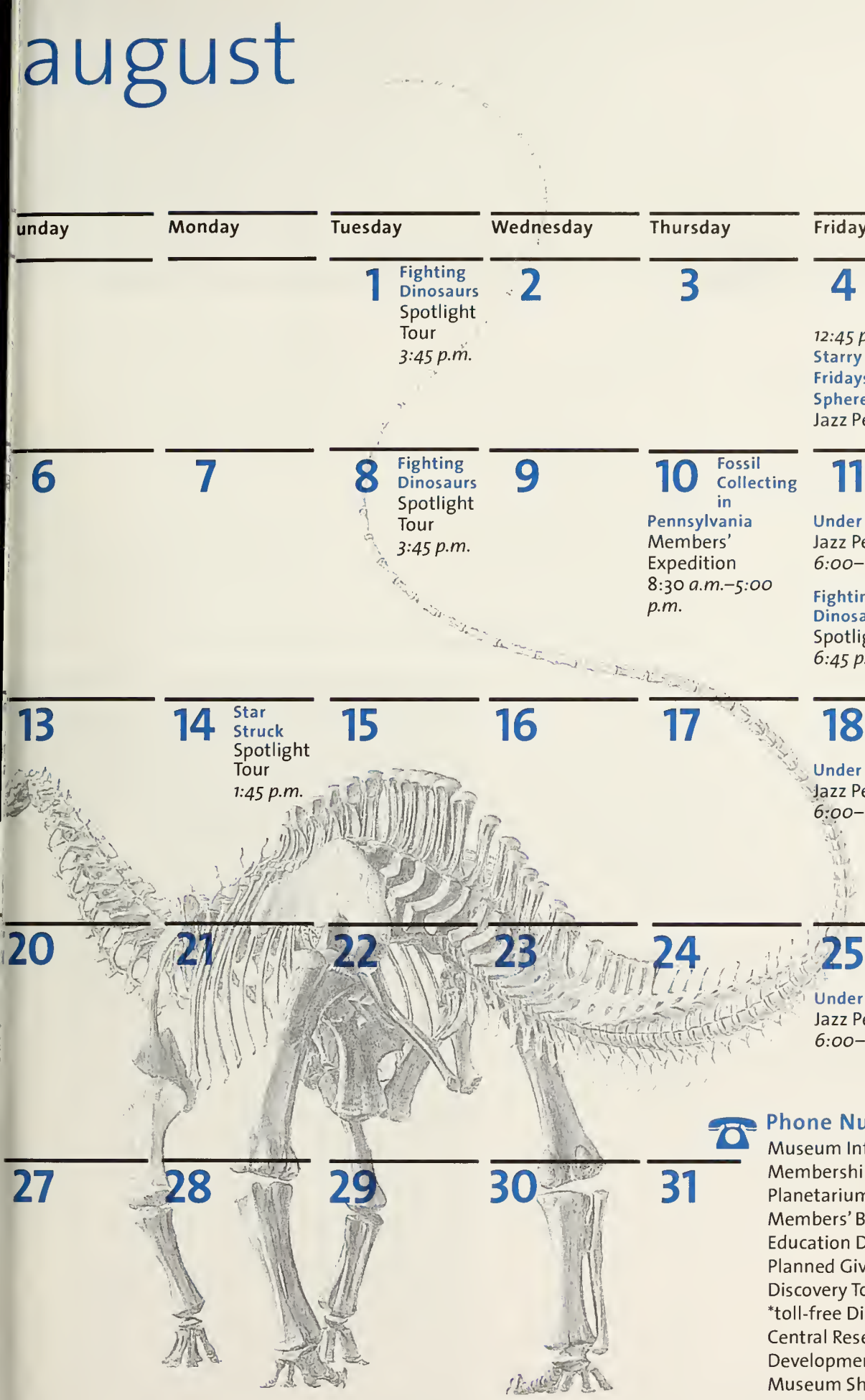
Mongolia Observed: Photographs Present And Past
Through September 4

Full Moon
Through September 23

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1
2	**3**	**4**	**5** Space Science Program Educators' Institute *3:00–8:00 p.m.*	**6** Space Science Program Educators' Institute *3:00–8:00 p.m.*	**7** Space Science Program Educators' Institute *3:00–6:00 p.m.* Starry Nights: Fridays Under the Sphere Jazz Performance *6:00–8:00 p.m.*	**8** Dinosaur Spotlight Tour *11:45 a.m.*
9	**10** Rose Center Spotlight Tour *2:45 p.m.*	**11**	**12**	**13** The Battery Walking Tour *10:00 a.m. or 12:00 noon*	**14** Dynamic Planet Earth Spotlight Tour *12:45 p.m.* Starry Nights: Fridays Under the Sphere Jazz Performance *6:00–8:00 p.m.*	**15** *Dinosaur!* Book Signing *11:30 a.m.*
16	**17** Hall of the Universe Spotlight Tour *12:45 p.m.* Rose Center Spotlight Tour *2:45 p.m.*	**18**	**19**	**20** Riverside Park Walking Tour *10:00 a.m. or 12:00 noon*	**21** Dynamic Planet Earth Spotlight Tour *12:45 p.m.* Starry Nights: Fridays Under the Sphere Jazz Performance *6:00–8:00 p.m.*	**22**
23 The Original Lost World Spotlight Tour *1:45 p.m.*	**24** Hall of the Universe Spotlight Tour *12:45 p.m.* Rose Center Spotlight Tour *2:45 p.m.*	**25**	**26** Earth & Space Science Program Educators' Institute *3:00–8:00 p.m.*	**27** Tri-borough Bridge Walking Tour *10:00 a.m.–2:00 p.m.* Earth & Space Science Program Educators' Institute *3:00–8:00 p.m.*	**28** Earth & Space Science Program Educators' Institute *3:00–6:00 p.m.* Starry Nights: Fridays Under the Sphere Jazz Performance *6:00–8:00 p.m.*	**29**
30	**31** Hall of the Universe Spotlight Tour *12:45 p.m.*					

august

unday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1 **Fighting Dinosaurs** Spotlight Tour *3:45 p.m.*	**2**	**3**	**4** **Star Struck** Spotlight Tour *12:45 p.m.* **Starry Nights: Fridays Under the Sphere** Jazz Performance	**5**
6	**7**	**8** **Fighting Dinosaurs** Spotlight Tour *3:45 p.m.*	**9**	**10** **Fossil Collecting in Pennsylvania** Members' Expedition 8:30 *a.m.–5:00 p.m.*	**11** **Starry Nights: Fridays Under the Sphere** Jazz Performance *6:00–8:00 p.m.* **Fighting Dinosaurs** Spotlight Tour *6:45 p.m.*	**12**
13	**14** **Star Struck** Spotlight Tour *1:45 p.m.*	**15**	**16**	**17**	**18** **Starry Nights: Fridays Under the Sphere** Jazz Performance *6:00–8:00 p.m.*	**19**
20	**21**	**22**	**23**	**24**	**25** **Starry Nights: Fridays Under the Sphere** Jazz Performance *6:00–8:00 p.m.*	**26**
27	**28**	**29**	**30**	**31**		



Phone Numbers at Your Fingertips

Museum Information	(212) 769-5100
Membership Office	(212) 769-5606
Planetarium Information	(212) 769-5900
Members' Birthday Parties	(212) 769-5606
Education Department	(212) 769-5304
Planned Giving Office	(212) 769-5119
Discovery Tours	(212) 769-5700
*toll-free Discovery Tours	(800) 462-8687
Central Reservations	(212) 769-5200
Development	(212) 769-5151
Museum Shop	(212) 769-5150

Website: http://www.amnh.org

museum notes

Volunteer Round-up

Are you curious to learn more about the Museum's history? To discover how the dioramas were created? Are you interested in learning more about mammals, birds, minerals and gems, and anthropology? Have you enjoyed going on volunteer-led tours through a museum and wondered how the guide knew so much? Do you think you could lead a tour? If so, then apply to become a volunteer Highlights Tour Guide. Training for the new class starts this Fall. Sessions will take place once a week in the evening for about 12 weeks. If you are interested, please call the Volunteer Office at 212-769-5566 for an application.

Spotlight Tours

Star Struck

July 7 & 28; 12:45 p.m.

Dinosaurs

July 8, 11:45 a.m.

Up close and personal with the world's greatest dinosaur fossil collection.

Rose Center

July 10, 17, & 24; 2:45 p.m.

Explore the observable Universe in our new Rose Center for Earth and Space.

Dynamic Planet Earth

July 14 & 21; 12:45 p.m.

What causes ocean basins, mountains, and continents to form? Find out about the dynamic forces that shape Earth.

Hall of the Universe

July 17, 24, & 31; 12:45 p.m.

The Original Lost World Tour

July 23, 1:45 p.m.

Tour based on the book by Sir Arthur Conan Doyle. We will meet the book's fascinating dinosaurs, plesiosaurs, and pterosaurs, to name just a few.

Star Struck

August 4, 12:45 p.m., & August 14, 1:45 p.m.

Tour of the Rose Center for Earth and Space.

Northwest Coast Indians: Myths, Messages, and Art

August 4, 3:45 p.m.

The unique and powerful art of the Pacific Northwest Coast Indians.

Fighting Dinosaurs

August 1, 3:45 p.m.; August 4, 6:45 p.m.; August 8, 3:45 p.m.; August 11, 6:45 p.m.

The Dinosaurs are Coming!

On Saturday, July 15, at 11:30 a.m., Howard Zimmerman will give a 20 minute presentation from his new book *DINOSAURS! The Biggest Baddest Strangest Fastest.*

Zimmerman, who edited the best-selling book *An Alphabet of Dinosaurs*, will talk about two sensational recent discoveries that are included in vivid detail in the book, but which are not yet available for display at the Museum.

DINOSAURS! is an immense book with immense subject matter to match, including the following:

Dinosaurs tinier than cats. Dinosaurs faster than ostriches. Dinosaurs with twelve-inch toe-claws that could rip prey in two. Dinosaurs that had feathers. Dinosaurs heavier than a dozen African elephants Dinosaurs more fearsome than *T. rex*.

The book is full of over seventy-five illustrations culled from the top paleontological artists from around the world.

Up-to-the-minute research, informatio eating habits, phonetic pronunciation, and a listing of internet addresses mak this a book like no other!

Copies will be available for purchase ar signing.

Dear Member:

We appreciate your loyal support of the American Museum of Natural History and would like to learn more about how you use the Museum. Our purpose in gathering this information is to find new ways to improve and enrich your experience when you visit the Museum. You can help us by returning this questionnaire before August 31.

As a token of our appreciation, we will send you a voucher for a complimentary AMNH totebag, which you may pick up at any Membership Desk on your next visit to the Museum.

1) How many times have you visited AMNH in the past year? _____

2) When you visit, how many people usually accompany you? # of adults_____ # of children _____

2a) If children accompany you, what are their ages? _____

3) When you visit, what is the average length of time you remain here? _____

4) While at the Museum, in which of the following have you spent a minimum of 15 minutes?

(Please check all that apply)

Rose Center for Earth and Space	[ ]	Hall of Planet Earth	[ ]
Hall of Biodiversity	[ ]	IMAX Theater	[ ]
Fossil Halls (4th floor)	[ ]	Hall of Ocean Life	[ ]
Hall of Human Biology	[ ]	Hall of African Mammals	[ ]
Special exhibitions (e.g. Fighting Dinosaurs, The Butterfly Conservatory, Body Art)			[ ]

Others_____

5) What is your favorite hall?_____

6) Have you purchased items in any of our Museum shops? Yes [ ] No [ ]

7) Do you attend educational programs, lectures, or workshops at the Museum? Yes [ ] No [ ]

7a) If yes, what topics interest you most?

_____

_____

8) How would you rate the service provided by the Membership staff at the Museum entrances?

[ ] Excellent [ ] Good [ ] Acceptable [ ] Needs improvement

9) How would you rate the service provided by the Membership staff when you call the Membership Office?

[ ] Excellent [ ] Good [ ] Acceptable [ ] Needs improvement

10) We welcome your comments about how to improve any aspect of membership services or benefits!

_____

_____

_____

_____

Thank you very much for taking the time to complete this questionnaire. Please return in the business reply envelope provided by August 31, 2000, or mail to the Membership Office, American Museum of Natural History, Central Park West at 79th Street, NY, NY 10024.

Rotunda
AM. MUS. NAT. HIST. LIBRARY
Received on: 07-14-2000

Museum Hours

Exhibition Halls

Sun.–Thurs.	10:00 a.m.–5:45 p.m.
Fri. & Sat.	10:00 a.m.–8:45 p.m.

The Museum Library

Tues.–Fri.	11:00 a.m.–4:00 p.m.

Museum Dining

Museum Food Court

Sun.–Thurs.	11:00 a.m.–4:45 p.m.
Fri. & Sat.	11:00 a.m.–7:45 p.m.

Cafe on 4

Sun.–Thurs.	11:00 a.m.–4:45 p.m.
Fri. & Sat.	11:00 a.m.–7:45 p.m.

Cafe 77

Daily	11:00 a.m.–4:45 p.m.

Natural Science Center

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.

The Museum Shop

Mon.–Thurs.	10:00 a.m.–5:45 p.m.
Fri. & Sat.	10:00 a.m.–7:45 p.m.
Sun.	10:00 a.m.–5:45 p.m.

Parking

The three-story visitor parking garage is open; enter from West 81st Street. For public transportation and parking information, call (212) 313-PARK(7275). The Museum is well served by public transportation.

Central Reservation Coupo

Program Name/Date # Members

_____

_____

_____

Total $

Mr./Mrs./Miss/Ms.

Address

City State Zip

Telephone (Day) (Evening)

Membership No.

❑ Check ❑ Am.Ex. ❑ Visa ❑ Master Card

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.

Entrances

During Museum hours, visitors can enter the building through the 77th Street entrance, the 79th Street subway entrance, the first- and second-floor Roosevelt Memorial Hall entrances (79th Street and Central Park West), or through the West 81st Street Rose Center 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.

Membership Department,
Central Park West @ 79th Street
New York, New York 10024-5192
www.amnh.org

AMERICAN MUSEUM of NATURAL HISTORY
MEMBER

rotunda

Members' Newsletter

Vol. 25 No. 8 September 2000

arthur ross terrace opens

QH76
.U52
N5
v. 25
no. 8
Sep 2000

American Museum of Natural History

terrace to the stars

This past January, the Rose Center for Earth and Space was unveiled in a stunning display of architectural imagination, receiving near universal praise from the press and public alike. Now, displaying the same inventiveness in design, the Museum announces the debut of the Arthur Ross Terrace, a plaza that will draw visitors from Theodore Roosevelt Park to the Rose Center.

Opening September 23rd, the Arthur Ross Terrace uses subtly-graduated shades of granite, sloping panels of lawn, and various walls, trees, and plantings to create an enchanting addition to the Museum–while adding more than an acre of public space to the refurbished Theodore Roosevelt Park, on the west side of the Museum.

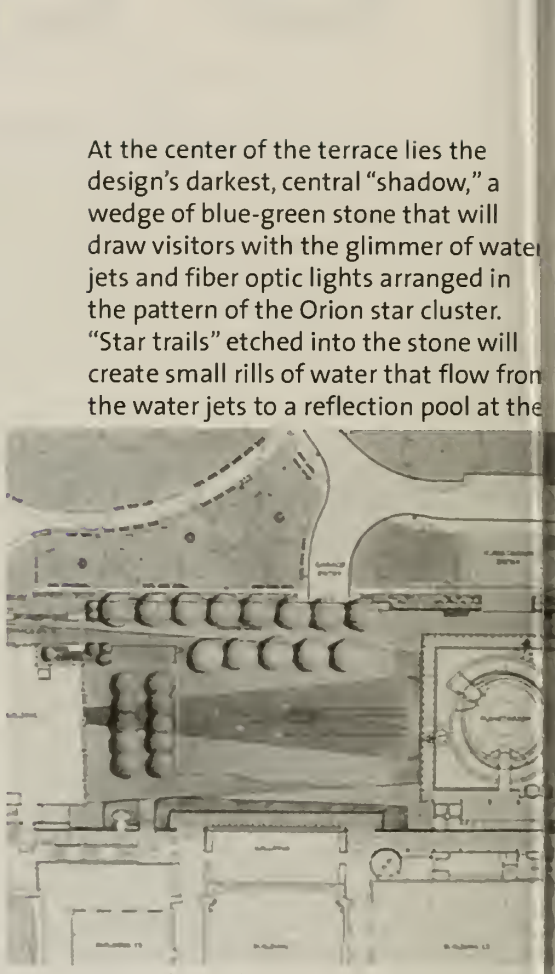
Renowned landscape artist Kathryn Gustafson's design was inspired by an illustration of the multiple conical shadows cast by a moon in eclipse. Developed in collaboration with Anderson & Ray, the final product includes wedge-shaped planetary "shadows" of stone "cast" from the Planetarium sphere across the plaza–symbolically transmitting the sphere's celestial presence to the historic doorstep of the Museum, located on the opposite end of the terrace.

Arthur Ross comments: "This important outdoor space on the Museum's northside, with its distinctive architecture and landscaping, adds a significant new dimension to this great public institution. The Arthur Ross Terrace further underscores the commitment of the American Museum of Natural History to serve its ever-growing audience and the local community, as well."

Approaching from Theodore Roosevelt Park, a staircase flanked by stairway planters leads from the ground-level up to the plaza. These planters offer subtle bits of inspiration, featuring a collection of native Mountain Laurel named for their star-shaped blooms (i.e. "Star Cluster," "Comet," "Shooting Star," and "Galaxy"). Traditional perennials and ground cover will respect the historic brick of the adjacent building and the traditionally planted park below.

Entering the terrace from the Museum, a simple platform of stone at the western end is separated from the rest of the plaza with a line of white, granite seating steps. On this terrace, a group of Ginkgo trees–the only surviving species of a family of trees that originated during Earth's Carboniferous period, some 340 to 290 million years ago–will be planted. In the fall, the bright green leaves of the Ginkgoes will transform into a glowing, clear "solar" yellow, and moveable cafe furnishings will provide opportunities for socializing amongst these gorgeous trees.

At the center of the terrace lies the design's darkest, central "shadow," a wedge of blue-green stone that will draw visitors with the glimmer of water jets and fiber optic lights arranged in the pattern of the Orion star cluster. "Star trails" etched into the stone will create small rills of water that flow from the water jets to a reflection pool at the base of the planetarium. In a stunning effect to be used during special events, the entire central "shadow" panel can be flooded with a thin wash of moving water, originating near the existing Museum building and flowing toward the Planetarium.



On the northern-most edge of the plaza a double row of Pagoda trees will, once fully-grown, form a tunnel of filtered light and fragrant seasonal bloom, leading visitors from the entry stairs to the Rose Center, while defining the terrace edge from the park below. Along the row of Pagoda trees, visitors will find

Cover: Watercolor illustration by Holley Flagg, 2000. Left: Stairway to the Terrace, photo by Roderick Mickens, AMNH. Above: Architectural rendering of the Terrace. Above Right: President Clinton and Neil de Grasse Tyson at the Millennium "Matinee" series at the White House.

a series of stopping spots for viewing the landscape beyond the edge of the terrace. These "nooks" between the trees will be furnished with an undulating line of benches, which can be used by small school groups or tour parties for lessons and discussions.

Finally, in the spring, above the entrance to the Rose Center's parking garage, on the northern edge of the terrace, the dramatic white bloom of densely planted native Beach Plum will create two lines of white "mist," providing an otherworldly foundation for the Rose Center to visitors viewing it from below.

Taken together, the Arthur Ross Terrace serves as a wonderful resting place on your way to the stars.

The Arthur Ross Terrace is made possible through the generous support of the Arthur Ross Foundation.

rotunda

ISSN 0194-6110
Vol. 25, No. 8, September 2000

John Davey, Editor
Rosemary Caulk, Director of Membership
Lynn DeBow, Vice President for Development and Membership
Ellen V. Futter, President
Anne Sidamon-Eristoff, Chairman

Rotunda is published monthly, except for a combined issue in July/August, by the Membership Office of the American Museum of Natural History, Central Park West @ 79th Street, New York, N.Y. 10024-5192. Telephone: (212) 769-5606. Web address: www.amnh.org. Museum membership of $45 per year and up includes a subscription to *Rotunda*. ©2000 American Museum of Natural History. Periodical postage paid at Rutherford, N.J., and at additional mailing offices. Postmaster: Please send address changes to *Rotunda*, Membership Office, AMNH, at the above address. Printed in the USA.

Dr. Tyson Goes to Washington

On June 12th,

Neil de Grasse Tyson, director of the Hayden Planetarium, continued in his inspiring quest to bring science to the people by serving as one of two featured speakers in the Millennium "Matinee" series at the White House.

The event, titled "Exploration: Under the Sea, Beyond the Stars," was hosted by the President and First Lady in the East Room of the White House.

Attended by an enthusiastic audience that included local students, educators, scientists, and the press, the program was cybercast live over the Internet and broadcast via satellite to locations around the country.

Millennium Evenings at the White House, which include the Millennium "Matinee," are a series of lectures and cultural programs that highlight the creativity and inventiveness of the American people through ideas, art, and scientific discoveries. These Evenings are part of the White House Millennium Council's national efforts to commemorate the new millennium with activities that reflect the theme "Honor the Past-Imagine the Future."

The event's other featured speaker, Dr. Marcia McNutt, president of the Monterey Bay Aquarium Research Institute in California, joined Tyson in discussing the American quest for discovery into the farthest reaches of sea and space, two of the remaining frontiers of discovery.

"The President and Mrs. Clinton came into the Blue Room, before the ceremony, and we chatted for a bit," Tyson recalls.

"The President told me that he was impressed with the Rose Center's design, and that it convinced him to commission the architect (Polshek Partnership Architects) and exhibit designer (Ralph Appelbaum & Associates) for his presidential library."

"The fun part was when we were told to wait in the Blue Room until we were summoned by the master of ceremonies. Then there was a trumpet fanfare followed by a Marine band playing 'Hail to the Chief,' at which point President and Mrs. Clinton entered and we followed. It was quite a rush."

The First Lady personally introduced Tyson, mentioning how moved she was by his Bronx childhood and his lifelong love affair with the stars.

When asked about the significance of the event and his personal reaction to it, Tyson concludes, "With the White House as the venue, I felt a profound sense of duty to bring the universe down to Earth for the audience in attendance and for all those watching live over television and the Web."

Listening to the glowing reports given by some of those in attendance, it appears as if Tyson has succeeded yet again in making the most of his responsibility.

program listings

Dr. Mitch Begelman

Distinguished Authors in Astronomy

The Distinguished Authors program introduces our audience to authors who have published popular-level books in astronomy.

Turn Right At Orion: A Journey From One Black Hole To Another

Monday, September 25, 7:30 p.m. Kaufmann Theater. Code: HP311L.

What is a black hole, where are they, and how do they work? Dr. Mitch Begelman, professor of astronomy at the University of Colorado, is one of the world's leading experts on these fascinating objects. He explores this and many other topics in this lecture based on his new book, *Turn Right At Orion: Travels Through The Cosmos*, an exploration of the physical properties and phenomena that govern our universe.

Beginning at the center of our own Milky Way galaxy, where a huge black hole silently lurks, Begelman will take the audience through the galaxy, learning about the effects of matter and energy on space and time. At the lecture's end, we will arrive at the heart of the Virgo Cluster and the huge elliptical galaxy, Messier 87, where an even larger black hole–billions of times more massive than the sun–awaits.

SPOTLIGHT TOURS

Thematic tours of the Museum's collections. Tours begin at the entrance to the Akeley Hall of African Mammals, on the second floor.

The Great Dinosaurs
September 2, 11:45 a.m.
Tour of the Dinosaur Halls.

Search for the Nile
September 9, 12:45 p.m.
Learn about 19th-century exploration of the Nile.

Star Struck
September5, 10:45 a.m.; September 22, 12:45 p.m.
Tour the stars and the universe.

Sharks: Denizens of the Deep
September 16, 11:45 a.m.
Learn the facts and myths about sharks.

Human Evolution
September 24, 1:45 p.m.
Delve into the latest ideas in Human Evolution.

Foreign Language Tours

Deutsche Fuhrung
September 5, 12, 19, 26; 11:00 a.m.
Museum Highlights Tour in German.

Visita del Mueso
September 7, 14, 21, 28; 11:00 a.m.
Museum Highlights tour in Italian.

Friends of Fishes and Lamont-Doherty Earth Observatory of Columbia University Free Program

October 11, 5:30 to 7:00 p.m. Registration Required. Admission Free.

This free program will introduce and describe to attendees the uses of the gas chromatograph/mass spectrometer in research and education, as well as outlining a collaborative program between Friends of Fishes© and Lamont-Doherty Earth Observatory of Columbia University in which students interested in undertaking science research projects will be granted free access to this valuable tool. Sara Hobel, director of the Urban Park Rangers, will describe the Friends of Fishes© Science and Environmental Education Program, 2000-2001, which is being conducted in partnership with the New York City Parks Department. The program, which is in its fourth year, is funded in part by the Citizens Committee for New York City, the Lawson Valentine Foundation, and the Philanthropic Group on behalf of the Levitt Foundation.

The selection of students applying for use of the gas chromatograph/mass spectrometer will be based on the merits of their project proposals and the recommendation of supervising teachers. Applications will be reviewed and awardees will be permitted to submit samples for analysis at no

charge. Many students have received acceptances to universities, and, in some cases, Intel and other scholarships have been awarded, based on projects carried out with the gas chromatograph/mass spectrometer.

New York City Parks Commissioner Henry Stern and Dr. Koji Nakanishi, Centennial Professor of Chemistry at Columbia University, will each receive the FOF/Lamont Turning Point Award during the program. The Turning Point award is given to outstanding individuals who have, by their thoughts or deeds, changed the way humankind thinks and, as a result, behaves. Commissioner Stern will be presented his award by Pat Yazgi, President of Friends of Fishes©, and Dr. Nakanishi will be presented his award by Angela Cigna Lukaszewski, president of the Science Teachers Assoc. of N.Y. State.

Commissioner Stern will discuss his ongoing innovations and developments in our New York City Parks Department. This is a talk not to be missed.

Dr Nakanishi, who will be introduced by Dr. Gilbert Stork, isolated the red tide toxin on the JEOL gas chromatograph/mass spectrometer that Friends of Fishes© and Lamont have incorporated into their educational and research program. Dr. Nakanishi will discuss the gas chromatograph/mass spectrometer, the red tide, and his ideas about improving science education worldwide.

There is no charge, but you must pre-register. Please fax your name, address, telephone and fax numbers, and desired number of tickets to 212-360-6625, or mail the information to Friends of Fishes, Inc., 1165 Fifth Ave., New York, NY 10029. For more information, please call 212-289-3605.

Get a Headstart on 2001

The Museum Wall Calendar and Engagement Diary for 2001 have arrived in the Museum shops, celebrating the opening of the Rose Center for Earth and Space and the great variety of style in nature and in the world's cultures.

Shop early and take advantage of the Museum's special offer–buy three engagement diaries, and you'll receive a fourth free.

Universe 2001, the Museum Wall Calendar

To commemorate the opening of the Rose Center, Universe 2001 explores our universe, from our planetary neighbors to its farthest reaches. Featuring the photography of the Hubble space telescope and leading astronomers, the calendar opens to double-page images of swirling galaxies, color-drenched nebulas, and fascinating close-ups of the solar system. Each month reveals the beauty, vastness, and mystery of the cosmos, the unknowable universe humankind is striving to comprehend. 12" x 12", $11.95.

Natural Style, the Museum Engagement Diary

The brilliant Amazonian feather mask-headdress on the cover announces the theme of the Museum's engagement diary for 2001. Drawing on the collections of the Museum, the diary highlights style in animal coloration, body art, minerals, resplendent costumes, and cosmic fireworks. Each week a full-page color illustration opens your eyes to the rich texture and intricate design of the world around us.

The diary is sized to fit into a briefcase or sit comfortably on your desk. 7" x 7", $13.95.

Special Museum offer, buy 3 and receive a 4th diary free

Quantity orders may be placed by calling Gabriella Rosen at 212-769-5908, or by email at gabi@amnh.org.

Hold the Date...

The Hayden Planetarium, in collaboration with The Planetary Society, will kick off the first International Spaceweek on Wednesday evening, October 4th, with a special event at the Museum titled: ***Should the Search for Life Be the Primary Goal of Space Exploration in the 21st Century?***

The event will bring together scientists, educators, and space policy experts in a panel format to discuss NASA's role in the search for life in the universe. Does life exist beneath the ice on Europa? What are conditions like beneath the thick blanket of atmosphere on Saturn's moon Triton? and How does the potential discovery of liquid water on Mars alter the chances for life to exist there now?

Tentative participants include Hayden Director Neil de Grasse Tyson, Lou Friedman, the executive director of the Planetary Society and an outspoken commentator of NASA's agenda for space exploration, and well-known educator Bill Nye (the "Science Guy").

Look for details in the October Rotunda, or on the Rose Center's Web site, www.amnh.org/rose

members' programs

LECTURES

Human Natures

Tuesday, October 3, 7:00 p.m.

The Bell Curve, *The Moral Animal*, *The Selfish Gene* and a host of other books and articles have made a seemingly overwhelming case that our genes determine our behavior. Dr. Paul R. Ehrlich, one of the world's leading evolutionary biologists, will discuss why most of those claims of genetic destiny cannot be true, explaining how the arguments often stem from a fundamental misunderstanding of evolution itself. Ehrlich will tell us why he believes that an understanding of evolution and our evolutionary past has never been more important for making intelligent decisions about the future of our species and our planet.

Paul R. Ehrlich is Bing Professor of Population Studies and professor of Biological Sciences at Stanford University. He is the author of hundreds of scientific papers, and numerous books, including *The Population Bomb*, *Betrayal of Science and Reason*, and his new book, *Human Natures: Genes, Cultures and the Human Prospect* (published by Island Press/Shearwater Books).

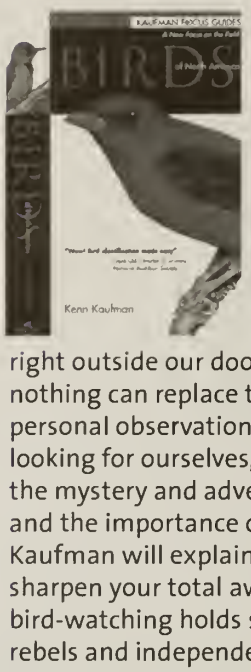
Cost: $10 members; $12 non-members. Code: MM10-1. Kaufmann Theater.

Paul R. Ehrlich

Birds and the Undiscovered World

Thursday, October 12, 7:00 p.m.

The "information explosion" of recent years might lead us to assume that few things remain to be discovered, but in fact the unknown is all around us. A surprising example involves the mysterious and ever-changing world of birds. Naturalist and author Kenn Kaufman has pursued birds in many remote regions, but he argues that the unknown begins right outside our doors, and that nothing can replace the power of personal observation. By going out and looking for ourselves, we connect with the mystery and adventure of nature and the importance of preserving it. Kaufman will explain how birds can sharpen your total awareness, and why bird-watching holds such appeal for rebels and independent thinkers.



Kaufman, a field editor for *Audubon* magazine, is the author of several books about birds and nature, including his new book, *Focus Guide to Birds of North America*.

Cost: $10 members; $12 non-members. Code: MM10-2. Kaufmann Theater.

The Life of Colin Turnbull

Thursday, October 26, 7:00 p.m.

Colin Turnbull was one of the most well-known anthropologists of the twentieth century, and also one of the most unconventional. His life-long love affair with the African Pygmies made him one of the most famous

Roy Richard Grinker

intellectuals of the 1960s and 70s, placing him among such greats as Margaret Mead and Louis Leakey. In addition to his scholarly career, he also worked at various times as a gold miner, as one of the builders of the African Queen, and as consultant to famed theater director Peter Brook.

Roy Richard Grinker, author of *In the Arms of Africa: The Life of Colin M. Turnbull*, will tell us about this fascinating man. As Turnbull's biographer, Grinker has a unique perspective, having himself spent two years living and studying among the Pygmies of the Ituri rain forest and currently holding Turnbull's former position as Associate Professor of Anthropology at George Washington University.

Cost: $10 members; $12 non-members. Code: MM10-3. Kaufmann Theater.

Books will be available for purchase and signing following each of the above-mentioned lectures.

BEHIND-THE-SCENES TOUR

Vertebrate Paleontology

Wednesday, October 18, 5:30, 6:15, or 7:00 p.m.

Venture behind closed doors with scientific staff at the Museum on a fascinating tour to learn the inside story of the Department of Vertebrate Paleontology. You will learn first-hand the fascinating details about the quest

to understand the relationship and history of backboned animals. The tour, which will include a stop in the department labs and a visit with staff responsible for photographing the collection's fossils, will conclude with a talk given by Mark Norell, chairman and associate curator of Vertebrate Paleontology.

Each tour, limited to 23 people, lasts one hour and departs from the Museum's Security Entrance, on Central Park West.

Cost: $25–members only. Code: MM10-4A (5:30); MM10-4B (6:15); or MM10-4C (7:00).

EXPEDITION

Fall Colors on the Old Mine Road

Saturday, October 14, 8:30 a.m.–5:00 p.m.

Take a colorful autumnal journey through history as you travel the route of the Old Mine Road, from the Delaware Water Gap to High Point State Park. Your guide on this journey will be Dr. Robert S. Grumet, anthropologist, archaeologist and writer, who has been studying the natural history of the region for more than 30 years.

Get a hand's-on introduction to Native culture in the region during a guided tour of the reconstructed Delaware Indian Village at Waterloo, New Jersey. Turning onto what many people regard as the nation's oldest road, you will visit the route's namesake, the Pahaquarry Copper Mine, stop for lunch at the 19th–century Middlebrook Village, visit the Peter's Valley art colony, and gaze over the deep smoky late afternoon hills of the picturesque Minisink Valley from the highest point in New Jersey.

Cost: $65 members; $75 non-members. Code: MM10-5.

HALL TOUR

Explore the Division of Paleontology

Friday, October 20, 6:15 p.m.

From the modest beginnings of the first fossil collection, to establishing a world-renowned dinosaur collection, through current expeditions to the Gobi Desert, where our paleontologists send daily live reports via the internet, this scientific area is one of the most fascinating to many. Join Museum docents Suzi Zetkus and Bill Hinchman to explore the history, the halls, the exhibits, and the invisible network that comprises the Division of Paleontology.

Cost: Free–members only. Code: MM10-6.

CHILDREN'S PROGRAM

The Amazing Dr. Can*Do's Halloween Magic Show

Sunday, October 29, 2:00 p.m.

Come experience the weird visions of the internationally unknown Dr. Quacksalver T. Can*Do, professor of magic at the Hogwarts School of Witchcraft and Wizardry, in a hour of fantastic magical experiments. With the help of girls and boys from the audience, Dr. Can*Do will delve into some really spooky stuff, including a good, old-fashioned story to learn, grow from, and share with your friends. P.S. Don't forget to bring your imagination, or you will vanish into thin air!

Cost: $10 members; $12 non-members. Code: MM10-7. Linder Theater.

PREVIOUSLY LISTED

MAP MAKING WORKSHOP

Making Maps

Tuesday, September 26 AND Wednesday, September 27, 6:00 p.m.

Here is your opportunity to learn how to make a quick, relatively accurate map of your holdings (or of nearby Manhattan topography) with very simple tools. Using a compass and your stride, you will also learn how to create topographic maps, measure the heights of trees (without climbing them) and lampposts, and plot the positions of objects encompassed by your map. This two-part workshop, taught by Sidney Horenstein, geologist and the Museum's coordinator of Environmental Programs, will take place out-of-doors.

Materials required: clip board, pencil, eraser, ruler.

Cost: $48 members; $58 non-members for 2 workshops. Code: MM9-1 (Sept. 26) and MM9-2 (Sept. 27).

Please join us for a private Members' Preview of the new exhibition

Vikings: The North Atlantic Saga

Friday, October 20th
6:00–8:30 p.m. in Gallery 4

Kindly rsvp to the Membership Department at 212-769-5606.

september

Monday	Tuesday	Wednesday	Thursday
4	**5** Fall Bird Walks in Central Park Walking Tour *7:00–9:00 a.m.* Star Struck Spotlight Tour *10:45 a.m.*	**6** Fall Bird Walks in Central Park Walking Tour *7:00–9:00 a.m.*	**7** Fall Bird Walks in Central Park Walking Tour *9:00–11:00 a.m.*
11	**12** Fall Bird Walks in Central Park Walking Tour *7:00–9:00 a.m.*	**13** Fall Bird Walks in Central Park Walking Tour *7:00–9:00 a.m.*	**14** Fall Bird Walks in Central Park Walking Tour *9:00–11:00 a.m.*
18	**19** Fall Bird Walks in Central Park Walking Tour *7:00–9:00 a.m.*	**20** Fall Bird Walks in Central Park Walking Tour *7:00–9:00 a.m.*	**21** Fall Bird Walks in Central Park Walking Tour *9:00–11:00 a.m.*
25 Turn Right at Orion Distinguished Authors in Astronomy Lecture *7:30 p.m.*	**26** Map Making Map Making Workshop *6:00 p.m.* Fall Bird Walks in Central Park Walking Tour *7:00–9:00 a.m.*	**27** Map Making Map Making Workshop *6:00 p.m.* Fall Bird Walks in Central Park Walking Tour *7:00–9:00 a.m.* Central Woodland, Pelham Bay Education Walking Tour *10:00 a.m.–1:00 p.m.*	**28** Fall Bird Walks in Central Park Walking Tour *9:00–11:00 a.m.* Animal Drawing Education Workshop *7:00–9:00 p.m.*

Current Exhibits

Fighting Dinosaurs: New Discoveries From Mongolia
Through October 29

Full Moon
Through September 23

Coming Soon...

Vikings: The North Atlantic Saga
October 21, 2000, through January 21, 2001

riday	Saturday	Sunday
1 Starry Nights: Fridays Under the Sphere Jazz Performance *6:00–8:00 p.m.*	**2** The Great Dinosaurs Spotlight Tour *11:45 a.m.*	**3**
8 Starry Nights: Fridays Under the Sphere Jazz Performance *6:00–8:00 p.m.*	**9** Search for the Nile Spotlight Tour *12:45 p.m.*	**10**
15 Starry Nights: Fridays Under the Sphere Jazz Performance *6:00–8:00 p.m.*	**16** South Street Seaport: The Life and Times of the Port Childrens Walking Tour *10:00 a.m.–12:00 noon* Sharks: Denizens of the Deep Spotlight Tour *11:45 a.m.*	**17**
22 Sequencing the Human Genome Special Conference *9:00 a.m.–5:45 p.m.* NY Microscopical Society Lecture by Brian J. Ford *7:30 p.m. Linder Theater* Starry Nights: Fridays Under the Sphere Jazz Performance *6:00–8:00 p.m.*	**23** Arthur Ross Terrace Opens Sequencing the Human Genome Special Conference *9:00 a.m.–5:45 p.m.* Fall Flowers and Trees in Central Park Education Urban Forest Walking Tour *8:30–11:00 a.m.*	**24** Human Evolution Spotlight Tour *1:45 p.m.*
29 Starry Nights: Fridays Under the Sphere Jazz Performance *6:00–8:00 p.m.*	**30**	

Phone Numbers at Your Fingertips

Museum Information	(212) 769-5100
Membership Office	(212) 769-5606
Planetarium Information	(212) 769-5900
Members' Birthday Parties	(212) 769-5154
Education Department	(212) 769-5304
Planned Giving Office	(212) 769-5119
Discovery Tours	(212) 769-5700
*toll-free	(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

Website: http://www.amnh.org

program listings

DEPARTMENT OF EDUCATION PROGRAMS

Parasite Rex

Tuesday, October 10, 7:00–8:30 p.m. Cost: $12 ($10 members, students, senior citizens). Code: ED20226L.

In this lecture, award-winning science writer Carl Zimmer offers a guided tour of the hidden, fascinating world of parasites, from protozoans that turn rats into suicidal kamikazes to wasps that convert their own DNA into viruses that help them. He will discuss how scientists are beginning to appreciate the ways in which parasites can control the fate of entire ecosystems and even steer the course of evolution.

Biodiversity and Mountain Wildflowers

Four Thursdays, October 5 through November 2, 7:00–8:30 p.m. (Code: ED20227L) or Four Mondays, October 16 through November 6, 2:30–4:00 p.m. (ED20228L). Cost: $35 for series ($31.50 members, students, senior citizens); $12 each ($10).

Among the wonders and delights of life on Earth is the spectacle of great wildflower displays in some of the harshest environments. This series of illustrated lectures examines the nature of this diversity and its importance in sustaining the web of life. The lectures will focus on the mountain flowers of Alaska, the Pacific Northwest, and New England. William Schiller, lecturer in botany in the Department of Education, presents the series.

Culture, Science, and Spirituality: A Lecture Series by Peter Gold

Two Tuesdays, October 17 and 24, 7:00–8:30 p.m. Cost: $20 ($18 members, students, senior citizens). Code: ED20229L.

In this series of slide- and sound-augmented lectures, anthropologist Peter Gold explores the common ground shared by modern science's ideas and methodologies, and the spiritual perspectives and practices of ancient cultures of Eurasia. Both systems are means for understanding our world and for acquiring knowledge to enhance the quality of life. Although, in the West, science and spirituality have taken separate paths during the past three centuries, today the two are beginning to reconverge in essential and exciting ways.

Peter Gold is a former research assistant to Dr. Margaret Mead at the American Museum of Natural History, a research associate at the Museum of Northern Arizona, and a member of the anthropology faculty at the California Institute of Integral Studies in San Francisco. He is the author of four books on ancient and indigenous cultures, including the groundbreaking volume, *Navajo and Tibetan Sacred Wisdom*.

October 17 Spiritual Roots of the Sciences

This lecture presents systems of knowledge and practice that were precursors to our modern, scientific concepts and methodologies. These include cosmologies, world views, philosophies, and alchemy procedures of early "Hermetic" Europe and Arabia, and spiritual philosophies, cosmologies, and practices of ancient India, Taoist China, and Buddhist Tibet.

October 24 The Reconvergence of Science and Spirituality

This lecture examines points of contemporary convergence between the spiritual knowledge and practices of ancient cultures and emerging theories and methodologies of the modern sciences. Cutting-edge research and applications in cosmology and astrophysics, bio-genetics, physics, electrochemistry, information science, medicine, ecology, and anthropology exemplify this trend.

Centenarian Women of Montenegro: An Oral History

Friday, October 20, 7:00–8:30 p.m. Cost: $12 ($10 members, students, senior citizens). Code: ED20230L.

The voices of the 115-year-old illiterate mountain women of Montenegro,Yugoslavia–Eastern Orthodox Christian, Roman Catholic, and Muslim–have never been heard until this project, which includes a book and documentary film. Author and scholar Dr. Zorka Milich and her son and documentary filmmaker, Mark Wallace Milich, examine the culture and traditions of Montenegro's warrior patriarchy, which remain relatively unchanged in remote mountain areas.

Zorka Milich's book *A Stranger's Supper: An Oral History of Centenarian Women in Montenegro* will be available for sale.

Water: Earth, Air, and Fire

Five Saturdays, October 21 through February 17, once per month, 1:30–4:00 p.m. Cost: $60 for series ($48 members, students, senior citizens); $15 each ($13.50). Code: ED20231L .

October 21 Water in the Biosphere: A Solvent for Life.

Water has played a central role in shaping plant and animal adaptations. Dr. Todd Dawson, professor of biology and director of the Center for Stable Isotope Biogeochemistry, Department of Integrative Biology, University of California at Berkeley, examines how water influences organism function and adaptation to the broad range of habitat types on Earth.

FREE PROGRAMS

China Survey

Four Wednesdays, October 11 through November 29. Kaufmann Theater.

An introduction to Chinese culture, this series of lectures features presentations by leading experts in the field of Chinese studies. Co-sponsored by the China Institute, and supported in part by a grant from the Tribune New York Foundation.

China: The Land and People

Wednesday, October 11, 7:30–9:00 p.m.

The first in the series, this lecture, presented by Myron Cohen, will discuss the origins of Chinese civilization, cultural and regional differences, and the influence of agriculture on the development of Chinese history.

Myron Cohen is Professor of Anthropology at Columbia University and holds joint appointments in the Anthropology Department and the East Asian Institute.

FREE PROGRAM IN CONJUNCTION WITH *VIKINGS: THE NORTH ATLANTIC SAGA*

Viking Market

Saturday and Sunday, October 21 & 22, 11:00 a.m.–4:00 p.m. Outside, 77th St.

The world of the Vikings has disappeared long ago, but their artistry and traditions live on in the study and reenactment of all aspects of Viking life. To celebrate these traditions and the opening of the exhibition, *Vikings: The North Atlantic Saga*, we invite you to an authentic reenactment of a Viking Marketplace. Experience Viking life through workshops in stone cutting, woodcarving, weaving, and other crafts. The Viking Market is supported by a grant from The American-Scandinavian Foundation.

FIELD TRIPS, WALKING TOURS, AND WORKSHOPS

Fall Bird Walks In Central Park

Eight Tuesdays, September 5 to October 24, 7:00–9:00 a.m. (Code: ED00325X); or Eight Wednesdays, September 6 to October 25, 7:00–9:00 a.m. (Code: ED00326X); or Eight Thursdays, September 7 to October 26, 9:00–11:00 a.m. (Code: ED00327X). Cost: $65 for each series. Limited to 25 persons per series. For further information and to register, call 212-769-5200.

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. You must register at least one week in advance.

program listings

Animal Drawing

Eight Thursdays, September 28 to November 16, 7:00–9:00 p.m. Cost: $150 (materials not included). Code: ED00328X.

Limited to 25 persons.

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.

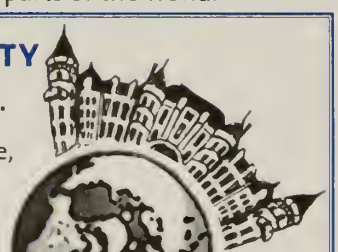
Museum Inside/Out

Saturday, November 4, (select morning or afternoon session). Cost: $15. Session one: 10:00 a.m.–12:00 noon (Code: ED00329X) or Session two: 12:00–2:00 p.m. (Code: ED00330X).

On this tour, led by Sidney S. Horenstein, geologist and coordinator of the Museum's environmental public programs, participants will examine the granite and marble of the walls and facade, which come from many parts of the world.

SEVENTH ANNUAL FAMILY PARTY

Wednesday, October 25, 2000, 5:30–8:00 p.m.



A fun-filled family event featuring multicultural music and dance, live animals and exotic reptiles, behind-the-scenes exploration, hands-on science and craft projects, and, of course, dinosaurs!

and

Middle School Madness: activities exclusively for pre-teens in grades four through eight, including a DJ, fun food, cool science activities, and more!

For more information, please call 212-496-3458.

To order tickets, please mail the coupon below with payment to:

The Family Party, Development Office, American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192.

___ Adult Ticket(s) at $100 ___ Childrens Ticket (s) at $50

___ Middle School Madness Ticket(s) at $50 each

___ I am unable to attend. Kindly accept my fully tax-deductible contribution of $ _____

Name _____

(please print)

Address _____

City _____ State _____ Zip _____

Daytime Telephone _____

Enclosed is a check for $_____.

Please charge my credit card: Number _____ Exp. ____

Signature: _____

Please make checks payable to the American Museum of Natural History.

$50 of each ticket is non tax-deductible.

URBAN FOREST WALKING TOURS

Cost: $15 per tour.

Limited to 25 persons.

Fall Flowers and Trees in Central Park

Saturday, September 23 (Code: ED20331X), or Wednesday, October 4, (Code: ED20332X), both 8:30–11:00 a.m.

A morning walk in Central Park to observe botanical signs of fall. The Shakespeare Garden, Hernshead, and Strawberry Fields areas will be explored; participants will learn about plant biodiversity, identification, and ecology.

Central Woodland, Pelham Bay Park

Wednesday, September 27, 10:00 a.m.–1:00 p.m. Code: ED20333X.

Woodland bordered by picturesque salt marsh provides an opportunity to explore how floral biodiversity confronts a saltwater environment.

Palisades National Natural Landmark, Alpine, New Jersey

Saturday, October 14, 10:00 a.m.–1:00 p.m. Code: ED20334X.

Scenic views of fall colors from the highest point on the escarpment and an exploration of changes in floral biodiversity along a cascade down to the Hudson River shore.

Northeast Forest, Van Cortlandt Park

Wednesday, October 18, 10:00 a.m.–1:00 p.m. Code: ED20335X.

The splendor of fall leaf colors highlights a hidden wetland featuring varied sequences of floral biodiversity invading a freshwater environment in this wild northeast corner of the park.

CHILDREN'S WORKSHOPS

Wildlife In Art
Sunday, Sunday, October 1, 10:30 a.m.–1:30 p.m. (ages 9 and 10). Cost: $15.

This workshop will use the exhibition background paintings, pottery, stone, and metal objects to discover wildlife art.

Bird Watching Fieldtrip
Sunday, October 1, 10:30 a.m.–1:30 p.m. (ages 9, 10, and 11). Cost: $15.

Join an expedition into Central Park's bird sanctuary.

Dinosaur Shadow Theater
Sunday, October 15, 10:30 a.m.–12:00 noon (age 6 and 7, each child with one adult). Cost: $15.00/pair.

After a walk in the Hall of Dinosaurs, children will create dinosaur shadow puppets.

All About the Senses
Sunday, October 15, 10:30 a.m.–1:30 p.m. (ages 7 and 8). Cost: $15.00.

Taking part in exciting experiments focused on vision and hearing, children will make their own drums and kaleidoscopes.

Planet Earth: Fieldtrip To Sterling Mines
Saturday, October 21 (fieldtrip), 9:00 a.m.–4:00 p.m. (ages 11, 12 and 13). Cost: $50.

Join us for a tour of the Sterling Hill Mine Tunnels and Museum.

A Day With The Dead
Saturday, October 28, 10:30 a.m.–1:30 p.m. (ages 9 and 10). Cost: $15.

Investigate the remains and symbols of the dead in a tour of the Museum's exhibitions.

Pumpkin Pow Wow
Sunday, October 29, 10:30 a.m.–1:30 p.m. (ages 8 and 9). Cost: $15.

Fun and interesting pumpkin carvings to make while children learn about Halloween.

Viking Games
Sunday, October 29, 10:30 a.m.–1:30 p.m. (ages 10 and 11). Cost: $15.

In this workshop, children explore the Viking culture through the games they played.

voluntary passion

Made up of more than

40 exhibition halls, staffed by over one thousand employees, housing a collection of specimens and artifacts in the tens of millions, the Museum is both fascinatingly immense and immensely fascinating. How does one begin to comprehend its vast scope? For many Museum visitors, the process begins with one of the many volunteer-led guided tours, which reveal and amplify the treasure-trove of information held in

each featured hall. And when the Museum's invaluable volunteer corps is mentioned, one name in particular comes to mind: Robert Campanile, recently-relocated tour guide emeritus.

Robert became a Museum tour guide in 1991, giving noteworthy highlight tours from the very start. However it wasn't until the introduction of the spotlight tour program, in which a particular theme or subject was addressed Museum-wide, that Robert came into his own. Including everything from "Lifestyles of the Big and Famous," explaining a treasure-trove of facts about dinosaurs, to "Mother Knows Best," focusing on the concept of motherhood, from the smallest marsupial to Mother Earth herself, his tours quickly began to reveal his extensive knowledge, humor, and unabashed love for the Museum.

As the audiences for his tours began to increase in size, he began offering special programs through the Museum's Membership and Education departments. A loyal, enthusiastic following developed, and he began expanding his repertoire to match by using elements of classic literature and drama in his lectures, including a Charles Dickens inspired tour, "A Museum Carol," and original costume productions like "The Epic of Gilgamesh," based on the ancient Babylonian poem. And, in 1992, he helped initiate the Museum's monthly Sign Language Program.

Perhaps the most remarkable feat that Robert conceived of and accomplished with his signature audacity and aplomb was the 1995 Members' Program "Epic Fragments: A Museum Odyssey." Over the course of four months, for two Friday evening sessions each month, Robert guided 38 members through the entire Museum, covering 38 halls, 840 cases, and 225 dioramas.

This past winter, after all these accomplishments, Robert decided to accept the positions of president of the North Adams Historical Society and director of the new North Adams Museum of History and Science, housed in a renovated historic railroad building in Western Gateway Heritage State Park. Covering the history and science of the northern Berkshires, the museum, set to open in March 2001, will feature exhibits on the area's railroads, architecture, immigration, and industrial and political history. In addition, the museum will cover the environment of the northern Berkshires, highlighting its flora and fauna and the conservation efforts put in place to protect them.

One might hazard a guess that Robert will always fondly remember the Museum, and it is surely true that anyone who ever experienced one of his tours will forever remember Robert for his unparalleled contributions to the AMNH.

SEPTEMBER 2000

museum notes

Members Museum Feast

Restaurant Associates is pleased to announce **Member Specials**.

Beginning in September and continuing every month thereafter, we will feature a Member Special at the Museum Food Court. For September, Members receive a complimentary Cappuccino or Espresso ($2.50 to $3.25 value) with the purchase of any Planet Cookie.

And in September look out for our special contest entitled: Which Planet Becomes a Cookie Next? Our planet cookie gallery currently houses the planets Earth, Mars and Jupiter. We need your help in determining which planet will join our gallery next. When visiting the Museum, please be sure to take a moment to pass by the Museum Food Court and cast your vote! The contest will end on September 31, 2000. Ballots will be counted and the winning cookie determined. All ballots containing the winning cookie will be entered into a drawing, and the winner of the drawing will receive: Lunch for four at the Museum Food Court, four Space Show tickets, and a basket of Planet Cookies. For more information please contact Judy Fuentes at 212-313-7248.

Remember, Members always receive a 15% discount at the Museum Food Court, Café on 4, and Café 77. Just present your membership card to the cashier at the start of your transaction.

Call for Volunteers

The Museum is currently seeking volunteers to assist in the live butterfly exhibit. Volunteers will be needed from October 7, 2000, until May 28, 2001. This is an excellent opportunity to work with the public amidst live, free-flying butterflies. Volunteers must be able to attend a training session and work regular two hour shifts in a simulated tropical environment.

If interested, please call the Volunteer Office at 212-769-5566 for an application, stating your interest in the butterfly exhibit.

IMAX© Films

To Be An Astronaut

Sunday through Thursday, 10:30 a.m., 12:15, 2:00, and 3:45 p.m.; Friday and Saturday, 10:30 a.m., 12:15, 2:00, 3:45, 5:30, and 7:15 p.m.

Dolphins

Sunday through Thursday, 11:15 a.m., 1:00, 2:45 and 4:30 p.m. Friday and Saturday: 11:15 a.m., 1:00, 2:45, 4:30, and 6:15 p.m.

IMAX© admission prices include suggested Museum admission. Single Film: $15.00 adults, $11.00 students and senior citizens, $9.00 children.

Please call 212-769-5200 for more information.

Museum Food Court

Photo by Jackie Beckett/Roderick Mickens, AMNH

Coming this fall...

Linda Kaye's Partymakers brings their winning combination of education and entertainment to the AMNH with five exciting ways to transform your child's birthday into an unforgettable event. Choose from Cosmic Blast-Off, Safari Adventure, Archaeological Dig, Underwater Treasure, and Dinosaur Discovery parties. Every Partymakers celebration blends learning and wonder with traditional birthday party fun.

Each birthday child is made to feel spec in a chief role leading the party. Parties are geared to children ages five and up, are planned seven days a week, and are available to Contributor and higher leve members.

For more information, please contact Partymakers at 212-288-7112.

Personal Shopping Services Now Available

Gabriella Rosen, Personal Shopper for th Museum Shops, is available to help you with all your shopping needs, including

- Corporate Gifts
- Holiday Shopping
- Birthdays and Special Events
- Weddings and Anniversaries
- Shopping Consulting

Hours of Availability: Monday and Friday 10:00 a.m.–5:45 p.m.

Located on the Book Mezzanine Level, Main Shop

If interested in this FREE service, please call Gabriella at 212-769-5794.

American Museum of Natural History
Holiday Card Collection

"Barosaurus with tree"
This playful silver *Barosaurus* from the museum's exhibit stretches to put a star on the top of this fancifully tall tree. "Seasons Greetings!" 4" x 9.25". Box of 12. $12.95
MEMBER PRICE $11.65

"Up, up and away..."
Eight tiny *Stegosaurus* fossils pull this sleigh into the deep blue night in this whimsical holiday card. "Wishing you a Merry Christmas and a Happy New Year." 9.25" x 4".
Box of 12. $12.95. **MEMBER PRICE $11.65**

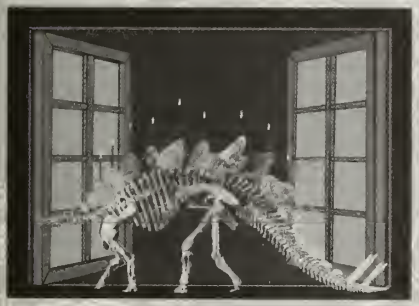
"Dinos on Parade"
Brightly colored fossil dinosaurs appear to march through Central Park bearing gifts for a party at the Museum."Happy Holidays!" 5" x 7". Box of 12. $11.95.
MEMBER PRICE $10.75

"Rose Center Gift"
The new Rose Center for Earth and Space is all wrapped up for the holidays with a red ribbon. "Seasons Greetings" 7" x 5". Box of 12. $11.95
MEMBER PRICE $10.75

"Japanese Print"
This serene Japanese print is one of a series of prints in the Museums collection, that show the progressive stages of a specific woodblock printing technique. "Wishing you Peace and Happiness this holiday season." 5" x 7". Box of 12. $11.95. **MEMBER PRICE $10.75**

"Zebras"
These zebras are strikingly depicted in contrasting red and green stripes, which should help to camoflage them this holiday season! "Seasons Greetings!" 7" x 5". Box of 12. $11.95.
MEMBER PRICE $10.75

"Holiday Moose"
This moose is all decked out for the holidays with silver tinsel, red and green ornaments and a wreath around its neck. "Happy Holidays!" 5" x 7". Box of 12. $11.95. **MEMBER PRICE $10.75**



"Stegosaurus Menorah"
Nine candles are warmly lit for Hanukkah on this *Stegosaurus* fossil that sits beside the deep blue night. "Happy Hanukkah!"
7" x 5". Box of 12. $11.95. **MEMBER PRICE $10.75**

"Snowflakes"
These drawings are based on original photographs that show the intricate detail and and uniqueness of each snowflake against shades of blue "Happy Holidays!" 5.25" x 5.25". Box of 12. $12.95.
MEMBER PRICE $11.65

To order, please call (212) 769-5150 or visit the Museum Shops

Rolanda
AM. MUS. NAT. HIST. LIBRARY
Received on: 09 30 2004

Museum Hours

Exhibition Halls

Sun.–Thurs.	10:00 a.m.–5:45 p.m.
Fri. & Sat.	10:00 a.m.–8:45 p.m.

The Museum Library

Tues.–Fri.	11:00 a.m.–4:00 p.m.

Museum Dining

Museum Food Court

Sun.–Thurs.	11:00 a.m.–4:45 p.m.
Fri. & Sat.	11:00 a.m.–7:45 p.m.

Cafe on 4

Sun.–Thurs.	11:00 a.m.–4:45 p.m.
Fri. & Sat.	11:00 a.m.–7:45 p.m.

Cafe 77

Daily	11:00 a.m.–4:45 p.m.

Natural Science Center

There are many wild places in the New York area, and the Center features these habitats' 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.

The Museum Shop

Mon.–Thurs.	10:00 a.m.–5:45 p.m.
Fri. & Sat.	10:00 a.m.–7:45 p.m.
Sun.	10:00 a.m.–5:45 p.m.

Parking

The three-story visitor parking garage is open; enter from West 81st Street. For public transportation and parking information, call (212) 313-PARK(7275). The Museum is well served by public transportation.

Central Reservation Coupo

Program Name/Date # Members

_____

_____

_____

Total $

Mr./Mrs./Miss/Ms.

Address

City State Zip

Telephone (Day) (Evening)

Membership No.

❑ Check ❑ Am.Ex. ❑ Visa ❑ Master Card

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.

Entrances

During Museum hours, visitors can enter the building through the 77th Street entrance, the 79th Street subway entrance, the first- and second-floor Roosevelt Memorial Hall entrances (79th Street and Central Park West), or through the West 81st Street Rose Center 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.

Membership Department,
Central Park West @ 79th Street
New York, New York 10024-5192
www.amnh.org

AMERICAN MUSEUM OF NATURAL HISTORY
MEMBER

Members' Preview–*Vikings: The North Atlantic Saga*, Friday, October 20th, 6:00-8:30 p.m.

rotunda

Vol. 25 No. 9 October 2000

Members' Newsletter

vikings: the north atlantic saga

H70
U52
5
. 25
o. 9
ct 2000

American Museum of Natural History

the saga continues

Opening at the Museum

on October 21st, *Vikings: The North Atlantic Saga* examines the historic impact of recent archaeological finds and explores the creative and enterprising spirit that led the Vikings across the Atlantic, from Iceland and Greenland to the shores of North America. The exhibition details Scandinavian life a millennium ago and focuses on important Viking contributions to developing civilizations.

Commemorating the 1000th anniversary of their landing in North America, *Vikings* presents the story of a vibrant, elegant, and astonishingly bold people who explored and briefly settled in North America 500 years before Columbus.

While popular history has often characterized the Vikings as seafaring invaders who founded settlements in Europe from 800 to 1200 A.D., the real story is a complex saga, revealing that the Vikings played a far richer role in European history. They excelled as poets and artisans, thrived as master shipbuilders and shrewd traders, and created the foundations of parliamentary government. Over time, they stimulated political changes in Europe and Russia and dramatically expanded the horizons of their own world, creating new societies in Iceland, Greenland, and North America.

This groundbreaking exhibition celebrates the contributions of these adventurous people who came from Norway, Sweden, Denmark, and Finland, and who established settlements in Iceland, and Greenland. They became the first recorded Europeans to reach North America, and to found successful settlements in many parts of the known world.

Vikings, which opened at the Smithsonian Institution, National Museum of Natural History, in Washington, D.C., earlier this year, brings together more than 300 precious objects and images from ten countries. These artifacts represent aspects of Viking life from 800 A.D. to the present, including Viking Age jewelry, wooden carvings, medieval church carvings, and modern pop-culture items.

To tell this epic story, *Vikings: The North Atlantic Saga* is divided into seven sections:

The first section, **Journey of Discovery**, explores the identity of the Vikings through recent scientific research efforts and commemorates the 1,000th anniversary of their landing in North America. Who are the Vikings and what do we really know about their travels? Viking graffiti, a sail fragment, and information about Erik the Red, the first European explorer to discover Greenland, are among the objects on display in this section.

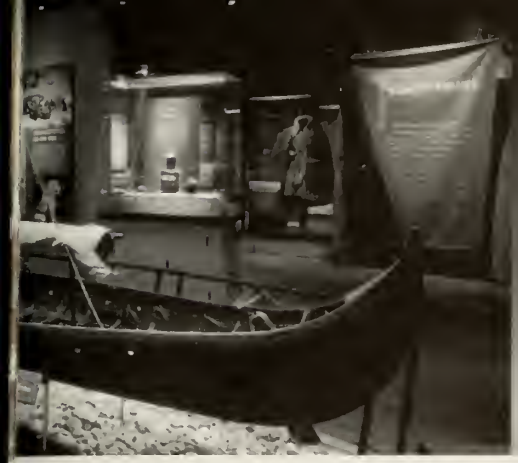
Next, **Recapturing the Past** examines what is known about the Vikings based on sagas, historical documents, environmental science, and archaeology, including burial artifacts from Greenland and a manuscript of the Fridthyoth saga.

Going Viking focuses on how the Viking interest in mastering the sea resulted in far-flung ocean travel and supremacy as traders and plunderers. Objects include the famous Lindisfarne stone, which depicts the Viking invasion of the Lindisfarne Priory in England and is considered to mark the beginning of the Viking era.

Transforming Society examines how Viking communities were changed by distant exploits and travels, as well as through the introduction of new technologies that sparked local crafts and manufacturing. Artifacts in the exhibition include the most famous piece of Viking loot, Ranvaig's Shrine, a reliquary casket taken from a Scottish Monastery and given to a Norwegian woman named Ranvaig.

Taking the North Atlantic illustrates the wide reach of the Vikings as they explored the known world. The centerpiece of this section will be a scale model of an almost 40-foot-long boat constructed by the Museum with the assistance of the Viking Ship Museum in Roskilde, Denmark. Other artifacts in this section include saga manuscripts on Erik the Red and his travels in Greenland and Vinland.

Discovering North America includes an Inuit wooden figurine of the Bishop of Baffin in European attire, striking evidence of the actual face-to-face contact between Vikings and Native Americans. Other exhibits include a display about the discovery of L'Anse aux Meadows archeological site on Canada's



Newfoundland Island, a map of Vinland as it was known to the Vikings, a Norse penny, and a Sandnes Point arrowhead found in a Norse graveyard alongside Northeastern Indian artifacts.

Finally, **Holding Fast at World's End** focuses on the expansion in Greenland, which was known to Vikings as the World's End. Evidence of thriving Norse settlements includes nine of the famous Lewis chessmen, each of which is a three-inch carved walrus ivory chess piece embellished with Celtic or Viking designs.

The exhibition was organized by the Smithsonian Institution's National Museum of Natural History and was curated by Dr. William W. Fitzhugh and Elisabeth I. Ward. David Hurst Thomas, curator, Division of Anthropology, AMNH, is the curator of the exhibition at the American Museum of Natural History.

rotunda

ISSN 0194-6110
Vol. 25, No. 9, October 2000

John Davey, Editor
Rosemary Caulk, Director of Membership
Lynn DeBow, Vice President for Development and Membership
Ellen V. Futter, President
Anne Sidamon-Eristoff, Chairman

Rotunda is published monthly, except for a combined issue in July/August, by the Membership Office of the American Museum of Natural History, Central Park West @ 79th Street, New York, N.Y. 10024-5192. Telephone: (212) 769-5606. Web address: www.amnh.org. Museum membership of $45 per year and up includes a subscription to *Rotunda*.

©2000 American Museum of Natural History.
Periodical postage paid at Rutherford, N.J., and at additional mailing offices. Postmaster: Please send address changes to *Rotunda*, Membership Office, AMNH, at the above address. Printed in the USA.

In conjunction with *Vikings: The North Atlantic Saga*, the Museum will present a four-part lecture series that explores the archaeology, history, literature, and art of the famed Norse warriors. Guest lecturers will discuss a wide range of Viking activities in the context of the political and historic changes going on in Europe and Russia. The impact of these explorations created new societies in both Iceland and Greenland and also led to the discovery of North America 500 years before Columbus. For additional information on special programs, please contact the Education Department at 212-769-5176.

Art and Culture of the Viking Age
Friday, November 17, 7:30 p.m.

James Graham-Campbell, professor of Medieval Archaeology, Institute of Archaeology, University College, London.

Viking Sagas and Social History
Monday, November 20, 7:30 p.m.

Jesse Byock, professor of Old Norse Studies, the Cotsen Institute of Archaeology at the University of California, Los Angeles.

Greenland Vikings
Tuesday November 28, 7:30 p.m.

Thomas H. McGovern, professor of the Bioarchaeology Laboratory, Hunter College, City University, New York.

Vikings in North America
Tuesday, December 5, 7:30 p.m.

Britta Wallace, staff archaeologist emerita, Parks Canada.

On Thursday, November 2, at 7:00 p.m., Dr. William W. Fitzhugh, curator of the exhibition and author of *Vikings: The North Atlantic Saga*, will present a lecture on the "real" history of the Vikings as they made their way across the North Atlantic to Greenland and America. See Page 6 for details.

In addition, a Viking Village will be re-created in the Hall of Ocean Life, on the weekend of October 21-22. Participants, dressed in Viking costumes, will demonstrate Norse saga-telling, children's games, jewelry making, reefing or nautical knots, and leatherwork. Viking music will be played on instruments based on archaeological findings from University of Lund, Sweden.

***Vikings: The North Atlantic Saga* is made possible through the generous support of the Nordic Council of Ministers and Volvo. Additional support comes from the Husqvarna Viking Sewing Machines, the Barbro Osher Pro Sucecia Foundation, and Phillips Petroleum Company, Norway. The exhibition is presented in partnership with the White House Millennium Council. Support for the Viking Village is made possible through a grant from The American-Scandinavian Foundation.**

Also, October 18-23, the Viking-ship *Islendingur*, an exact replica of an old Viking-ship called the *Gaukstad-ship*, which was excavated from an ancient burial mound in Norway in 1882, will be docked at the 79th Street Boat Basin (79th Street and Riverside Park), where it will be open to the public.

Cover: *Islendingur*. Photo by Antonio Otto Rabasca; courtesy of Skipper Gunnar Eggertsson. Above Left: A view of the exhibition. Left and Above: Exhibition artifacts, courtesy of the Smithsonian Institution.

program listings

Hayden Planetarium Lectures in the Dome

Beginning this fall, the two lecture series sponsored by the Hayden Planetarium will be held in the planetarium theater, inside the Hayden Sphere in the new Rose Center for Earth and Space. After each talk, Dr. Neil deGrasse Tyson, director of the Hayden Planetarium, will give a brief presentation of the night sky using the Zeiss Mark IX star projector–bring your binoculars and opera glasses!

Distinguished Authors in Astronomy

The Runaway Universe

Monday, October 16, 7:30 p.m., Hayden Planetarium Theater. Program Code: HP312L.

Will the cosmos expand forever, or will gravity someday reverse the process and cause a "Big Crunch?" Dr. Donald Goldsmith, recipient of a lifetime achievement award from the American Astronomical Society for communicating astronomy to the public, tells the story of the astronomers who have tried to answer this question. In their race to discover the future of the cosmos, these scientific pioneers may have found an unexpected and astonishing result: the expansion of the universe is actually accelerating and we may someday find ourselves in a "runaway universe."

Frontiers in Astrophysics

Tales of the Dark Matter: Finding The Unseen

Monday, October 23, 7:30 p.m., Hayden Planetarium Theater. Program Code: HP301L.

Over 90 percent of the matter in the universe is dark–and thus far undetectable in any way except by its gravity. Dr. Dara Norman of the Department of Physics and Astronomy at SUNY Stony Brook informs us about the latest attempts to study this enigmatic matter, using the method of gravitational lensing. Perhaps with this and other new techniques, we may be finally beginning to get some answers to fundamental questions about how dark matter is distributed throughout the cosmos.

Starry Nights: Fridays Under the Sphere

Friday Evening Jazz Series

Today's best jazz performers, including Jimmy Heath, Steve Turre, Lou Donaldson, The Jazz Passengers, David "Fathead" Newman, and Jimmy Greene, appear this fall in Starry Nights: Fridays Under the Sphere at the Rose Center for Earth and Space.

The bands perform one-hour sets at 5:45 p.m. and 7:15 p.m. each Friday.

This on-going weekly series presents live music performances in one of the most spectacular settings in all of New York City. Since the series began in April,

Starry Nights: Fridays Under the Sphere

thousands of visitors at café tables placed under the Hayden Sphere have enjoyed exciting live entertainment in space with superb acoustics. Restaurant Associates provides a selection of tapas and beverages.

October 6, 13: Jimmy Heath Quartet

October 20, 27: Steve Turre Quartet

November 3, 10: Lou Donaldson Quartet

November 17, 24: The Jazz Passengers

December 1, 8, 15: David "Fathead" Newman Quartet

December 22, 29: Jimmy Greene Quartet

Laser Shows

Laser Flashback, featuring the music of Jimi Hendrix, The Doors, and The Grateful Dead, 9 p.m.

Classic Rock in 3D, including Pink Floyd, Queen, Van Halen, and The Who, 10 p.m.

The shows begin October 6, and will play on Friday and Saturday evenings in the Museum's IMAX© Theater.

Space Week Event

Wednesday, October 4, 7:30–9:00 p.m.

The Hayden Planetarium, in collaboration with The Planetary Society, will celebrate the United Nations' first International Space Week with an event at the Museum titled **Should the Search for Life Be the Primary Goal of Space Exploration in the 21st Century?** The event will bring together scientists, educators, and space policy experts in a panel discussion of NASA's role in the search for life in the universe. Topics to be covered include: What are the details of NASA's current manned and unmanned space programs? Should Congress fund an expensive manned program to look for life? Is the public's thirst for discovery satisfied if only robots do the discovering? Does the existence of the International Space Station help or hinder this cause? And without the Soviet Union as a Cold War adversary, can we ever expect funding for the space program to return to the level of the 1960s?

The panel will include Dr. Neil deGrasse Tyson, AMNH astrophysicist and director of the Hayden Planetarium; Dr. Franklin Chang-Diaz, NASA Space Shuttle astronaut and research scientist; Adriana Ocampo, NASA research scientist in Flight Projects; James Oberg, space engineer and prolific commentator on Russian and American space programs; William Burrows, professor of Journalism at New York University and author of *This New Ocean: A History of the First Space Age* (1998); and well-known science educator, TV host and space enthusiast, Bill Nye ("the Science Guy").

Tickets are $8 for members of the AMNH, The Planetary Society, or the National Space Society; $10 for non-members. Tickets may be purchased by calling 212-769-5200. Please note that admission to the event will be solely via the Museum's 77th Street Entrance.

Friends of Fishes Program

October 11, 5:30 to 7:00 p.m.

This free program will introduce and describe to attendees the uses of the gas chromatograph/mass spectrometer in research and education. There will also be an awards presentation.

For more information, please call 212-289-3605.

Halloween Celebration

Dress up in your favorite costume and come trick-or-treat at the Museum's Fifth Annual Halloween Celebration, on Tuesday, October 31st, from 3:00 p.m. to 7:00 p.m. Meet the characters Snoopy, Berenstain Bears, Clifford the Big Red Dog, Ms. Frizzle, and many more; create scary masks; listen to storytellers and musical performances; and take part in several other fun activities. Highlights of the afternoon include performances by David Grover and the Big Bear Band, and Big Apple Circus *Circus To Go!*

Admission to the event is $6.00 per person. A Monster Meal package, which includes admission, is available for $12.95. For further information and reservations, please call (212) 769-5200.

Two Million and Counting

On Wednesday, August 30th, Museum President Ellen V. Futter and Hayden Planetarium Director Neil deGrasse Tyson welcomed the 2 millionth visitor, Thomas O'Brien, to the Rose Center for Earth and Space. After receiving a Museum membership and Museum Shop gift items, O'Brien and his mother, Cathy, were given a personalized tour of the Rose Center by Tyson, and the opportunity to tour the other 42 permanent halls of the Museum.

The Butterfly Conservatory: Tropical Butterflies Alive in Winter

October 7, 2000—May 28, 2001

Hall of Oceanic Birds, second floor

This exhibition, first presented during 1998 and now a holiday favorite, features 300 to 500 live, free-flying tropical butterflies from Central, South, and North America.

They are housed in a vivarium that approximates the butterflies' natural habitat, including live flowering plants that serve as nectar sources. The walk-in vivarium has controlled artificial light, temperature, and humidity, and measures more than 60' long, 21' wide, and 10' tall.

Among the species included in the vivarium are iridescent Blue Morpho butterflies, Passion-Flower butterflies, Longwing butterflies, and large Owl butterflies. Text panels located immediately outside the vivarium offer information about the evolution and life cycle of butterflies, including a section on mimicry, as well as about their diversity and their important role in conservation.

The Butterfly Conservatory: Tropical Butterflies Alive in Winter made possible by a generous gift from Bernard and Anne Spitzer.

members' programs

LECTURES

Vikings: The North Atlantic Saga

Thursday, November 2, 7:00 p.m.

The Viking discovery of America has been one of the most controversial chapters in the history of North America. Known originally from Icelandic saga records, the "Vinland" voyages have been romanticized in literature and, until recently, were supported only by claims of stone towers, runestones, and relics lacking archaeological provenance. Today, new archaeological discoveries not only prove beyond a doubt that Vikings arrived in North America 500 years before Columbus, they also show where Viking contacts with Native Americans occurred. These discoveries also help to resolve other mysteries, like why Vikings did not settle in "Vinland" and what likely happened to mysterious Grenland Norse.

Join Dr. William W. Fitzhugh, director of the Arctic Studies Center and curator in the Department of Anthropology, National Museum of Natural History, Smithsonian Institution, to discover the "real" history of the Vikings as they made their way across the North Atlantic to Greenland and America. Fitzhugh is the organizer and curator of the exhibition, and author of *Vikings: The North Atlantic Saga*.

Cost: $10 members; $12 non-members.
Code: MM11-1. Kaufmann Theater.

The Triumph of Evolution

Thursday, November 16, 7:00 p.m.

The "debate" between creationists and those bent upon defending the teaching of evolution is, of course, nothing of the sort–if by "debate" one means a serious discussion between opposing views with legitimate intellectual content. The truth is that the debate is stale: all the issues were thoroughly aired in the latter half of the 19th century and intellectually resolved over 100 years ago.

In this lecture, Niles Eldredge, curator in the Division of Paleontology, will argue that this endless acrimony distracts attention from an overlooked connection between biology and religion. To see this connection, we must be willing to suspend the by now wholly outmoded culture war over origins, and be willing to take a fresh look at the world around us. When we do that, we get a whole new perspective on the connections between science and religion–positive connections–that help point the way to solving some of the most critical problems faced by life on this planet as we enter the new Millennium.

Niles Eldredge is the author of seventeen books, most recently *The Triumph of Evolution–and the Failure of Creationism*.

Cost: $10 members; $12 non-members.
Code: MM11-2. Kaufmann Theater.

Creatures of the Sea

Tuesday, November 21, 7:00 p.m.

Richard Ellis, author of the *Book of Whales, Men and Whales, Great White Shark, Imagining Atlantis*, and *The Search for the Giant Squid*, having been identified as a "fact-junkie," decided to indulge his obsession and write (and illustrate) an encyclopedia about the ocean. He will discuss his new "Encyclopedia of the Sea," explaining how one writes an encyclopedia, how one chooses the subjects, and how one researches such disparate topics as Fiji, flashlight fish, Franklin, frigate birds, flogging, and frogfish.

Cost: $10 members; $12 non-members.
Code: MM11-3. Kaufmann Theater.

Books will be available for purchase and signing following each of the above-mentioned lectures.

MEMBER TOUR

Departments of Herpetology and Icthyology.

Friday, November 10, 6:15 p.m.

Discover the fascinating world of reptiles and amphibians. These creatures dwell in a variety of different habitats and exhibit lifestyles very different from our own. Then on into the oceans, as we meet the wide variety of fascinating fish, sharks, and their relatives–a world populated by strange creatures with sometimes stranger habits.

Join museum docents Suzi Zetkus and Bill Hinchman to discover these strange worlds, and the collections, history, and people that made these halls possible.

Free–members only. Code: MM11-4.

EXPEDITION

The Natural History of Baseball

Saturday, November 11, 8:00 a.m.–4:00 p.m.

While some people say that the national pastime was created in New York City, it is more accurate to say that baseball is of our city. Each of the three great stages of baseball evolution occurred within the five boroughs. Peter Laskowich, urban historian and master of baseball trivia, will trace the history and rules of the game to the interplay of the natural environment and social conditions in late 19th- and early 20th-century New York. During the course of the day, our charter coach will take us to the home of the Bronx Bombers, and to the sites of the former Ebbets Field and the Polo Grounds.

Begin the day with a private, behind-the-scenes tour at Yankee Stadium with Tony Morante, Public Relations Director of the New York Yankees, to explore the game as it is played today. A stop will be made at one of the city's legendary delicatessens for lunch.

Cost: $60 members; $70 non-members. Code: MM11-5.

PREVIOUSLY LISTED

Human Natures

Tuesday, October 3, 7:00 p.m.

Dr. Paul R. Ehrlich will discuss why most claims of genetic destiny cannot be true.

Cost: $10 members; $12 non-members. Code: MM10-1. Kaufmann Theater.

Birds and the Undiscovered World

Thursday, October 12, 7:00 p.m.

Naturalist and author Kenn Kaufman will explain how birds can sharpen your total awareness, and why bird-watching holds such appeal for rebels and independent thinkers.

Cost: $10 members; $12 non-members. Code: MM10-2. Kaufmann Theater.

The Life of Colin Turnbull

Thursday, October 26, 7:00 p.m.

Roy Richard Grinker will discuss the life of Colin Turnbull, one of the best-known anthropologists of the twentieth century.

Cost: $10 members; $12 non-members. Code: MM10-3. Kaufmann Theater.

Vertebrate Paleontology

Wednesday, October 18, 5:30, 6:15, or 7:00 p.m.

Venture behind closed doors with scientific staff at the Museum on a fascinating tour to learn the inside story of the Department of Vertebrate Paleontology.

Cost: $25–members only. Code: MM10-4A (5:30); MM10-4B (6:15); or MM10-4C (7:00).

Fall Colors on the Old Mine Road

Saturday, October 14, 8:30 a.m.–5:00 p.m.

Take a colorful autumnal journey through history as you travel the route of the Old Mine Road, from the Delaware Water Gap to High Point State Park.

Cost: $65 members; $75 non-members. Code: MM10-5.

Please join us for a private Members' Preview of the new exhibition

Vikings: The North Atlantic Saga

Friday, October 20th
6:00–8:30 p.m. in Gallery 4

Kindly rsvp to the Membership Department at 212-769-5606.

Explore the Division of Paleontology

Friday, October 13, 6:15 p.m.*

Join Museum docents Suzi Zetkus and Bill Hinchman to explore the history, the halls, the exhibits, and the invisible network that comprises the Division of Paleontology.

Cost: Free–members only. Code: MM10-6.

(* Date changed)

The Amazing Dr. Can*Do's Halloween Magic Show

Sunday, October 29, 2:00 p.m.

This program for children offers the weird visions of the internationally unknown Dr. Quacksalver T. Can*Do.

Cost: $10 members; $12 non-members. Code: MM10-7. Linder Theater.

SCANDINAVIAN SMÖRGÅSBORD

We hope that you plan to join us for the Members' Preview of *Vikings: The North Atlantic Saga* on Friday, October 20. For this special evening, we are pleased to offer this exciting dining experience for AMNH members only.

Before or after your viewing of the exhibition, you may enjoy a Scandinavian Smörgåsbord, a buffet of contemporary and traditional Scandinavian cuisine created by Executive Chef Frank Polchinski. Our menu includes Norwegian fish soup, Gravlax, poached salmon and shrimp salad, Danish smorebrod, Swedish meatballs, roast duck with apples, and Swedish pancakes with Lingonberries. You can also enjoy a traditional Glogg (mulled wine), or chose from a selection of beers, white and red wines, and soft drinks, which are also included in this very special feast.

Time: Friday, October 20, from 5:00 to 8:00 p.m. Place: The Annex (adjacent to the Museum Food Court on the Lower Level). Cost: Adults: $30; Children (under 12): $17.50. Advance reservations are required since seating is limited. For reservations, please call 212-769-5200. Code: MM10-8.

october

Current Exhibits

Fighting Dinosaurs: New Discoveries From Mongolia
Through October 29

The Butterfly Conservatory: Tropical Butterflies Alive in Winter
October 7, 2000—May 28, 2001

Vikings: The North Atlantic Saga
October 21, 2000, through January 21, 2001

Monday	Tuesday	Wednesday	Thursday
2	**3** Human Natures Member Lecture *7:00 p.m.*	**4** Should the Search for Life be the Primary Goal of Space Exploration in the 21st Century? Space Week Event *7:30–9:00 p.m.*	**5** Biodiversity & Mountain Wildflowe Education Program *7:00–8:30 p.m.*
9	**10** Parasite Rex Education Program *7:00–8:30 p.m.*	**11** Friends of Fishes Lecture *5:30–7:00 p.m.* China Survey Education Program *7:30–9:00 p.m.*	**12** Birds and the Undiscovered World Member Lecture *7:00 p.m.* Biodiversity & Mountain Wildflowers Education Program *7:00–8:30 p.m.*
16 The Runaway Universe Distinguished Authors in Astronomy Lecture *7:30 p.m.* Biodiversity & Mountain Wildflowers Education Program *2:30–4:00 p.m.*	**17** Culture, Science and Spirituality Education Program *7:00–8:30 p.m.*	**18** Vertebrate Paleontology Member Tour *5:30, 6:15 or 7:00 p.m.*	**19** Biodiversity & Mountain Wildflow Education Program *7:00–8:30 p.m.*
23/30 Tales of the Dark Matter Frontiers in Astrophysics Lecture *7:30 p.m. (10/23)* Biodiversity & Mountain Wildflowers Education Program *2:30–4:00 p.m. (10/23 & 10/30)*	**24/31** Culture, Science, and Spirituality Education Program *7:00–8:30 p.m. (10/24)* Museum's Fifth Annual Halloween Celebration *3:00–7:00 p.m.*	**25** Seventh Annual Family Party *5:30–8:00 p.m.*	**26** The Life of Colin Turnbull Member Lecture *7:00 p.m.* Biodiversity & Mountain Wildflowers Education Program *7:00–8:30 p.m.*

Phone Numbers at Your Fingertips

Museum Information	(212) 769-5100	Development	(212) 769-5151
Membership Office	(212) 769-5606	Museum Shop	(212) 769-5150
Planetarium Information	(212) 769-5900	Library Services	(212) 769-5400
Members' Birthday Parties	(212) 769-5606	Communications	(212) 769-5800
Education Department	(212) 769-5304	Volunteer Office	(212) 769-5566
Planned Giving Office	(212) 769-5119	Natural History magazine	(212) 769-5500
Discovery Tours	(212) 769-5700	IMAX®	(212) 769-5034
*toll-free	(800) 462-8687		
Central Reservations	(212) 769-5200	Website: http://www.amnh.org	

riday	Saturday	Sunday
		1
6 **Starry Nights: Fridays Under the Sphere** Jazz Performance *6:00–8:00 p.m.*	**7** ***The Butterfly Conservatory: Tropical Butterflies Alive in Winter* opens** **Puppets and Drums: Arts Revived** Multicultural Programs *1:00–5:00 p.m.*	**8** **Puppets and Drums: Arts Revived** Multicultural Programs *1:00–5:00 p.m.*
13 **Explore the Division of Paleontology** Member Tour *6:15 p.m.* **tarry Nights: Fridays Under the phere** azz Performance :00–8:00 p.m.	**14** **Fall Colors on the Old Mine Road** Member Expedition *8:30 a.m.–5:00 p.m.* **Puppets and Drums: Arts Revived** Multicultural Programs *1:00–5:00 p.m.*	**15** **Puppets and Drums: Arts Revived** Multicultural Programs *1:00–5:00 p.m.*
20 ***Vikings: The North Atlantic Saga* Preview** *6:00–8:30 p.m.* **candinavian Smorgasbord** :00–8:00 p.m. **tarry Nights: Fridays Under the phere** azz Performance :00–8:00 p.m.	**21** ***Vikings: The North Atlantic Saga* opens** **Viking Market** *11:00 a.m.– 4:00 p.m.* **Puppets and Drums: Arts Revived** Multicultural Programs *1:00–5:00 p.m.* **Water: Earth, Air, and Fire** Education Program *1:30–4:30 p.m.*	**22** **Viking Market** *11:00 a.m.– 4:00 p.m.* **Puppets and Drums: Arts Revived** Multicultural Programs *1:00–5:00 p.m.*
27 **Starry Nights: Fridays Under the Sphere** Jazz Performance *6:00–8:00 p.m.*	**28**	**29** **The Amazing Dr. Can*Do's Halloween Magic Show** Member Childrens' Event *2:00 p.m.*

program listings

DEPARTMENT OF EDUCATION PRESENTS...

Puppets and Drums: Arts Revived

October and November 2000.

Weekend Family Programs, 1:00– 5:00 p.m.

From the Mandalay Marionettes of Burma to the Greek shadow puppets in Astoria, Queens, from Taino art forms to Gullah Sea Island rhythms, traditions once thought to be lost are vibrant, alive, and growing.

Saturday and Sunday, October 7 & 8

Film: *Songs for Ralph*
1:00 p.m.

This is a loving and lively musical tribute to Ralph Rinzler, the man who championed indigenous American music: first as a musician, then in field research and recording, and finally as the founder of the Center for Folklife in the Smithsonian Institute.

Lecture/Demonstration : Greek Byzantine Sculpture Tradition
1:45 & 3:15 p.m.

Master craftsman Kostantinos Pylarinos demonstrates the intricate art of Byzantine wood carving.

Performance: Dr. Karaghiozis' Greek Shadow Puppet Theater
2:30 & 4:00 p.m.

Karaghiozis' Greek shadow puppet theater grew out of the common culture of the peoples of the Eastern Mediterranean. Karaghiozis (which means "black-eyed" in Turkish) is a central comic character who adapts the persona of the impoverished Greeks.

Saturday and Sunday, October 14 & 15

Performance: Music, Song and Dance of the Indigenous Caribbean
1:00 p.m. & 4:00 p.m.

The Cacibajagua Cultural Society introduces the native peoples of the Caribbean (Taino, Arawak and Carib) through traditional dances and social music sung in the original Taino-Arawak language.

Film: *Quest of the Carib Canoe*
2:00 p.m.

This film tells the story of a group of contemporary Carib Indians who undertake a dangerous 1,000-mile sea voyage in a traditional canoe. Risking their lives on the open sea, they leave their Caribbean Island home of Dominica to reach the jungles of South America.

Lecture: Indigenous Cultural Revival in the Caribbean
3:00 p.m.

Roberto Mucaro Borrero, a Taino Indian descendant, presents a slide show on the contemporary movement to affirm Indigenous heritage in Puerto Rico and throughout the Caribbean.

Saturday & Sunday, October 21 & 22

Saturday, October 21

Mandalay Marionette Puppet Workshop (limited to 15 participants)
1:00–3:00 p.m.

Program code: ED00220M

Learn how to manipulate the renowned Burmese marionettes, whose history dates back to the 15th century. Expert puppeteers from the Mandalay Marionette troupe will introduce character types, basic movements, and rhythmic patterns. Participants will have the opportunity to closely observe the acrobatic movements for which the puppets are famous.

Burmese Puppeteers.

Burmese Puppetry by the Mandalay Marionettes
Saturday & Sunday, October 21 & 22, 7:00 p.m. (Saturday), 1:00 p.m. (Sunday)

The Mandalay Marionettes, a company continuing the tradition of the renowned master puppeteer Shwebo Tin Maung, make their New York debut. Three puppeteers and five musicians create these extraordinary performances, where princes and princesses woo, ogres cavort, and alchemists enchant.

Reviving Traditions: Cross-Cultural Perspectives
Sunday, October 22, 2:30 p.m.

Across cultures, artists from the Continuing Art Traditions program discuss issues that affect the survival, revival, and continuance of their art forms. The influence of foreign media, tourism, and resulting conflicts such as a demand for "authentic" cultural traditions, will be addressed.

See related programs: Kaufmann Theater, first floor.

Photo by Carl Hefner

Saturday & Sunday, November 18 & 19

Saturday, November 18

Long Live the Drum! They could not stop the beat

1:00 p.m. & 3:30 p.m.

David Pleasant will discuss the history of Africans in the American Southeast and how slavery, drum bans, and pre- and post-Civil War politics impacted Gullah heritage in music.

Polyrhythmic Explorations

2:00 p.m.

David Pleasant performs Gullah-derived rhythms highlighting hallmarks of African invention, such as pitch variation, polyrhythm, syncopation and call and response.

Sunday, November 19

Film: *The Language You Cry In (The Story of a Mende Song)*

1:00 p.m.

This documentary traces the history of a Mende burial hymn brought by slaves to the rice plantations of the Southeast Coast more than two hundred years ago. It was preserved there for generations, though the meaning of the words was forgotten until a pioneering black linguist, Lorenzo Turner, recognized its origin in the 1930s.

Riddimic Studies with David Pleasant: Shout, Juba and Sing-Copation

2:00– 3:30 p.m.

David Pleasant explores the rich polyrhythmic heritage of both the Georgia and South Carolina Sea Islands (home of Gullah/Geechee culture). Foot stomps, pitched handclaps, vocal and tambourine techniques will be covered in hands-on exercises that link music and movement.

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 American Museum of Natural History wishes to thank the May and Samuel Rudin Family Foundation, Inc., the Tolan Family, and The Leonhardt Foundation for their support of these programs.

Still from *The Language You Cry In*

California Newsreel

DEPARTMENT OF EDUCATION PROGRAMS

Parasite Rex

Tuesday, October 10, 7:00–8:30 p.m. $12 ($10 members, students, senior citizens). Code: ED20226L.

Award-winning science writer Carl Zimmer offers a guided tour of the hidden, fascinating world of parasites.

Biodiversity and Mountain Wildflowers

Four Thursdays, October 5–November 2, 7:00–8:30 p.m. (Code: ED20227L) or Four Mondays, October 16–November 6, 2:30–4:00 p.m. (Code: ED20228L). $35 for series ($31.50 members, students, senior citizens); $12 each ($10).

This series of illustrated lectures examines the nature of wildflower diversity and its importance in sustaining the web of life.

Culture, Science, and Spirituality: A Lecture Series by Peter Gold

Two Tuesdays, October 17 and 24, 7:00–8:30 p.m. $20 ($18 members, students, senior citizens). Code: ED20229L.

In this series of slide- and sound-augmented lectures, anthropologist Peter Gold explores the common ground of the ideas and methodologies of modern science and the spiritual perspectives and practices of ancient cultures of Eurasia.

October 17 Spiritual Roots of the Sciences

October 24 The Reconvergence of Science and Spirituality

Centenarian Women of Montenegro: An Oral History

Friday, October 20, 7:00–8:30 p.m. $12 ($10 members, students, senior citizens). Code: ED20230L.

The voices of the 115-year-old illiterate mountain women of Montenegro,Yugoslavia.

program listings

Water: Earth, Air, and Fire

Five Saturdays, beginning October 21, 1:30–4:00 p.m. Code: ED20231L. $60 for series ($48 members, students, senior citizens); $15 each ($13.50).

This lecture series addresses the role of water in Earth processes.

October 21 Water in the Biosphere: A Solvent for Life.

November 18 The Global Water Cycle: Past, Present, and Future

The Wonderful World of Butterflies and Moths: A Six-part Seminar

Five Wednesdays, November 1–29 and Tuesday, December 12, 7:00–8:30 p.m. $75 for series ($67 members, students, senior citizens); $15 each ($13.50).

Eric L. Quinter, senior scientific assistant in the Department of Entomology, presents a short course covering many aspects of lepidopterology, the science, study, and aesthetic appreciation of butterflies and moths.

Core Geology

Three Thursdays, November 9, 16, 30, 7:00–8:30 p.m. Code: ED20233L. $25 ($22.50 members, students, senior citizens).

Here is an opportunity to learn the basic principles of geology: how rocks are classified, weathering and erosion, and the factors that create the great variety of landscapes on Earth. Participants will be acquainted with the latest ideas about the structure of the Earth, learning why continents move and how these movements produce mountains, volcanoes, and earthquakes. Presented by Sidney S. Horenstein, geologist and coordinator of environmental public programs at the Museum.

The Viking Saga

Four lectures, Friday, November 17, Monday, November 20, Tuesday, November 28, & Tuesday, December 5; 7:00–8:30 p.m. $35 for series ($31.50 members, students, senior citizens); $12 each ($10).

During the Viking Age, the Nordic influence spread rapidly throughout the world, reaching from the Caspian Sea in the east, to much of Northern Europe, and across the Atlantic Ocean into Eastern North America. In conjunction with the special exhibition *Vikings: The North Atlantic Saga*, this four-part series explores

the archaeology, history, literature, and art of the famed Norse warriors. For additional information, call 212-769-5176.

Friday, November 17 Art and Culture of the Viking Age

Monday, November 20 Viking Sagas and Social History

Tuesday, November 28 Greenland Vikings

Tuesday, December 5 Vikings in North America

DEAR BUNNY, DEAR VOLODYA: The Friendship and the Feud

Thursday, November 30, 7:00–8:30 p.m. or Saturday, December 2, 2:00–3:30 p.m. Code: ED20235L. *$15 ($13.50 members, students, senior citizens).*

A dramatic dialogue adapted from the letters of Edmund Wilson and Vladimir Nabokov by Terry Quinn. The play is based on the 30-year long exchange of letters between one of America's preeminent literary and social critics, Edmund Wilson, and the Russian émigré author Vladimir Nabokov. The program features Nabokov's son, Dmitri Nabokov, in the role of his father, and writer and editor George A. Plimpton in the role of Wilson.

The Faith of Biology and the Biology of Faith

Thursday, December 7, 7:00–8:30 p.m. Code: ED20236L. $12 ($10 members, students, senior citizens).

Are there parallels between the "moment of insight" in science and the emergence of the "unknowable" in religious faith? Where does scientific insight come from? In this talk, Robert Pollack argues that an alliance between religious faith and science is not necessarily an argument in favor of irrationality: the two can inform each others visions of the world. Robert Pollack is a professor of biological sciences and director of the Center for the Study of Science and Religion at Columbia University. His writings include *The Missing Moment: How the Unconscious Shapes Modern Science* and *Signs of Life: The Language and Meaning of DNA*. His book *The Faith of Biology and the Biology of Faith* will be available for purchase and signing.

FREE PROGRAMS

China Survey

Four Wednesdays, October 11–November 29

China: The Land and People, Wednesday, October 11, 7:30–9:00 p.m.

Themes In Imperial China, Wednesday, November 1, 7:00–8:30 p.m.

The Arts of China, Wednesday, November 15, 7:00–8:30 p.m.

China in the 20th Century, Wednesday, November 29, 7:00–8:30 p.m.

FREE PROGRAMS IN CONJUNCTION WITH *VIKINGS: THE NORTH ATLANTIC SAGA*

Viking Market

Saturday and Sunday, October 21–22, 11:00 a.m.–4:00 p.m.

Hall of Ocean Life

The world of the Vikings has disappeared long ago, but their artistry and traditions live on in the study and reenactment of all aspects of Viking life. To celebrate these traditions and the opening of the exhibition, *Vikings: The North Atlantic Saga*, we invite you to an authentic reenactment of a Viking Marketplace. Experience Viking life through workshops in stone cutting, woodcarving, weaving, and other crafts. Participate in storytelling, music, dances, children's game, and more.

Vikings For Families

Norse sagas have proved to be accurate histories of the Viking age. Each of the following family presentations has used these stories as their inspiration.

Saturday, November 18, 1:30–3:00 p.m. Leif Eriksson, Viking Voyager

Folklorist Rolf Kristian Stang uses stories drawn from the Norse saga tradition to dramatize the life of this seafaring hero for children of all ages.

Sunday, November 19, 12:30–2:00 p.m.
A Viking Voyage

Could a Viking ship have sailed from Greenland to Newfoundland? Author W. Holding Carter decided to prove that it was possible, and in 1998 he built a ship in the style of a small ocean-going knarr and set sail. Join us for a tale of adventure, as he describes his failed first attempt and explains how learning Viking sailing skills made his second trip a success.

Museum Inside/Out

Saturday, November 4, (select morning or afternoon session), Session one, 10:00 a.m.–12:00 noon (Code:ED00329X); or Session two, 12:00–2:00 p.m. (Code: ED00330X); $15.

On this tour, led by Sidney S. Horenstein, geologist and coordinator of the Museum's environmental public programs, participants will examine the granite and marble of the walls and facade, which come from many parts of the world.

SEVENTH ANNUAL FAMILY PARTY

Wednesday, October 25, 5:30–8:00 p.m.

A fun-filled family event featuring multicultural music and dance, live animals and exotic reptiles, behind-the-scenes exploration, hands-on science and craft projects, and, of course, dinosaurs!

and

Middle School Madness: activities exclusively for pre-teens in grades four through eight, including a DJ, fun food, cool science activities, and more!

For more information, please call 212-496-3458.

To order tickets, please mail the coupon below with payment to:

The Family Party, Development Office, American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192.

___ Adult Ticket(s) at $100 ___ Childrens Ticket (s) at $50

___ Middle School Madness Ticket(s) at $50 each

___ I am unable to attend. Kindly accept my fully tax-deductible contribution of $ _____

Name _____

(please print)

Address _____

City _____ State _____ Zip _____

Daytime Telephone _____

Enclosed is a check for $_____.

Please charge my credit card: Number _____ Exp. _____

Signature: _____

Please make checks payable to the American Museum of Natural History.

$50 of each ticket is non tax-deductible.

museum notes

As they say in Swahili, "I shall go back by another way"

"My interest in travel to exotic places began early, through reading and films like Frank Buck's *Bring'em Back Alive* series," says Museum Member Everett Hoffman. "I followed the explorers–the Johnsons (man and wife, Martin and Osa), Sir Samuel Baker, Speke, Burton, Major Laing (who discovered Timbuctoo), Henry M. Stanley (who found Livingstone) and last, but not least, the American Museum of Natural History's own Roy Chapman Andrews on his adventures in Mongolia in the 1920s."

By the time he was 24 years old, Everett himself had circled the globe while in the military, visiting "every continent except Antarctica."

He considers the American Museum of Natural History his university where he can study the subject of the natural world. An artist and instructor, he often brought his art students to the Museum from Cooper Union, the Pratt Institute and the Academy of Arts, Newark. His own Museum education involved many of the classes and lectures held every year, including Garrett Hardin's ecology of the Sahara Desert, and Dr. Lewis Thomas' biological cosmos. He also briefly met the Paleoanthropologist, Dr. Dart, responsible for the discovery of the fossilized *Australopithicus africanus*, the first known human ancestor.

It was Everett's combined love of travel and the Museum, which inspired him to create the Everett Hoffman Endowed Fund for Research Expeditions through a Charitable Gift Annuity and a future bequest. He says of the Museum, paraphrasing Winston Churchill, "I took more out of it than it took out of me."

Everett's planned gifts for the Museum entitled him to become a member of the Natural History Society. The Natural History Society is the Museum's association for donors who have made gifts through the Planned Giving Program. Members of the Society are kept informed of the Museum's activities in many ways, including exhibition previews and special bulletins.

These days, Everett has lost the travel bug, but he enjoys the idea of the Museum's scientific staff going in his stead as surrogates. As they say in Swahili, "I shall go back by another way." Indeed, he will return in spirit with the scientists whose research expeditions he is so generously helping to fund.

For more information about Gift Annuities, Bequests and other planned gifts, please contact the Museum Planned Giving Office at (212) 769-5119or toll-free at (800) 453-5734.

Personal Shopping Services Now Available

Gabriella Rosen, Personal Shopper for the Museum Shops, is available to help you with all your shopping needs, including:

- Corporate Gifts
- Holiday Shopping
- Birthdays and Special Events
- Weddings and Anniversaries
- Shopping Consulting

Hours of Availability: Monday and Friday 10:00 a.m.–5:45 p.m.

Located on the Book Mezzanine Level, Main Shop.

If interested in this FREE service, please call Gabriella at 212-769-5908.

Members Monthly Special

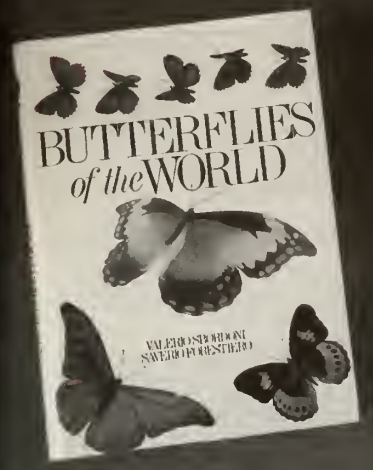
The Museum Food Court, located on the Museum's Lower Level, is a great place to sit down and enjoy a break before you continue your tour.

This month, Restaurant Associates offers members of the Museum a free large fountain beverage with any purchase of $10.00 or more after member discount.

Members always receive a 15% discount at the Museum Food Court, Café on 4, and Café 77.

Please be sure to present your Museum membership ID at the beginning of your transaction.

It's Butterfly Time Again!!



Butterflies of the World by distinguished lepidopterists Valerio Sbordoni and Saverio Forestiero. Hardcover; 312 pages, $45. Framed butterfly specimens from $16-$249. (13x15 shown) $79.

Handmade butterfly paper mobile $28.

© 2000 AMNH

Exclusively ours, 36" butterfly silk chiffon scarf by Echo. Available in cream (shown) or black. $58 or 22k gold-plated filigree butterfly pin by Morgot Townsend, based on 18th century rare book art. $2

100% cotton; pillow $26, set of 2 kitchen towels $14, or a tote bag $18. All are inspired by images from the Museum's rare book collection.

Just for kids: adjustable yellow and pink baseball caps with embroidered butterfly $10 ea. 100% cotton butterfly t-shirt (xs, s, m,or l) $12.95ea.

Lunchbox/carrying case made of recycled plastic $12.50; yellow butterfly picture frame (holds 3x5 photo) $17 or butterfly clips picture frame (holds any size photos) $12.50.

Museum's Main Shop, The Butterfl
More, Jr. Shop,

To order please call: 212.769.5150

AMERICAN MUSEUM ō NATURAL HISTORY

A Gifted Idea.

Rotunda
AM. MUS. NAT. HIST. LIBRARY
Received on: 10-16-00

Museum Hours

Exhibition Halls

Sun.–Thurs.	10:00 a.m.–5:45 p.m.
Fri. & Sat.	10:00 a.m.–8:45 p.m.

The Museum Library

Tues.–Fri.	11:00 a.m.–4:00 p.m.

Museum Dining

Museum Food Court

Sun.–Thurs.	11:00 a.m.–4:45 p.m.
Fri. & Sat.	11:00 a.m.–7:45 p.m.

Cafe on 4

Sun.–Thurs.	11:00 a.m.–4:45 p.m.
Fri. & Sat.	11:00 a.m.–7:45 p.m.

Cafe 77

Daily	11:00 a.m.–4:45 p.m.

Natural Science Center

There are many wild places in the New York area, and the Center features these habitats' 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.

The Museum Shop

Mon.–Thurs.	10:00 a.m.–5:45 p.m.
Fri. & Sat.	10:00 a.m.–7:45 p.m.
Sun.	10:00 a.m.–5:45 p.m.

Parking

The three-story visitor parking garage is open; enter from West 81st Street. For public transportation and parking information, call (212) 313-PARK(7275). The Museum is well served by public transportation.

Central Reservation Cou

Program Name/Date # Member

_____

_____

_____

Total $

Mr./Mrs./Miss/Ms.

Address

City State Zip

Telephone (Day) (Evening)

Membership No.

❑ Check ❑ Am.Ex. ❑ Visa ❑ Master Card

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.

Entrances

During Museum hours, visitors can enter the building through the 77th Street entrance, the 79th Street subway entrance, the first- and second-floor Roosevelt Memorial Hall entrances (79th Street and Central Park West), or through the West 81st Street Rose Center 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.

Membership Department,
Central Park West @ 79th Street
New York, New York 10024-5192
www.amnh.org

AMERICAN MUSEUM of NATURAL HISTORY

Members' Preview–*Vikings: The North Atlantic Saga*, Friday, October 20th, 6:00-8:30 p.m.

rotunda

Vol. 25 No. 10 November 2000

Members' Newsletter

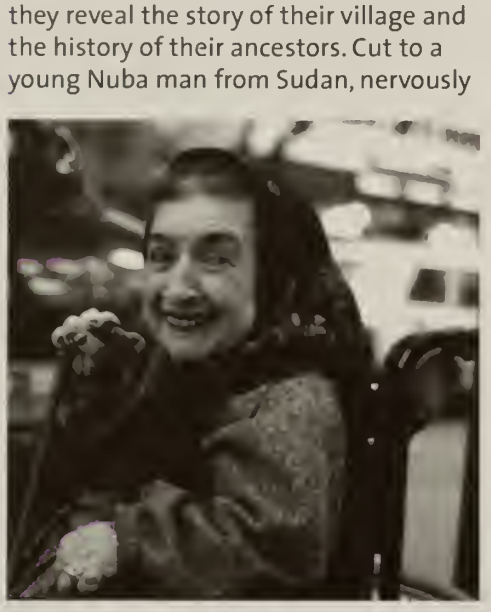
inside: margaret mead film & video festival

QH70
.U52
N5
v. 25
no. 10
Nov 2000

American Museum of Natural History

2000 margaret mead film & video festival

Close up on a remote Bulgarian village. It is the day before Christmas, and the villagers who remain in this mostly abandoned town are waiting in line for bread. As they wait, they reveal the story of their village and the history of their ancestors. Cut to a young Nuba man from Sudan, nervously preparing to marry and begin his life against the backdrop of an impending civil war. Fade to the U.S. Midwest, where an autistic engineer redesigns slaughterhouses and redefines both the terms, "disabled," and "compassionate." These are just a few of the images and stories on hand at the **2000 Margaret Mead Film & Video Festival**, running at the Museum from November 3 through November 11.



SINCE ITS INCEPTION IN 1977, THE FESTIVAL HAS SHOWCASED THE VERY BEST IN DOCUMENTARY FILMMAKING FROM AROUND THE WORLD.

This year's festival features the films of Mira Nair, a filmmaker whose body of work mixes tradition and innovation, in terms of both style and subject. Best known for her feature films, *Mississippi Masala* and *Kama Sutra*, Nair is also a master documentarian, experimenting with all dimensions of filmmaking, and focusing her lens on people at the fringes of society. *India Cabaret* looks at women in India who have chosen a daringly different way of life–that of a cabaret stripper. *Children of Desired Sex* exposes the practice of selective abortion as a tool to ensure male offspring, and sheds light on the core of India's patriarchal society.Nair's newest documentary, *Laughing Club of India*, examines laughter as medicine. Mira Nair will attend the screenings and will participate in post-screening discussions to talk about her works and her approach to filmmaking.

Mollusk Sex Chains? *The Love Life of an Octopus?* These are topics and titles from the work of Jean Painlevé (1902-1989), a French naturalist turned filmmaker who transcended the category of "science" filmmaking and crafted artistic and surreal cinema steeped in biological accuracy. Advocating the credo "science is fiction," Painlevé scandalized the scientific world with cinema designed to entertain as well as educate. Painlevé directed more than 200 science and nature films during his lifetime and this series–part of the Festival's November 3 opening night–celebrates the ground-breaking work of this maverick filmmaker.

Also featured this year is the series **Reframing Disablilty**. Long the subjects of film, here disabled people speak up and speak out about their community, their art, and the world they inhabit. These films and videos suggest that disability is a social and political category, not just a medical one.

Highlights include the U.S. premiere of *Liebe Perla*: Perla is the sole survivor of her family, all dwarfs, on whom Dr. Josef Mengele conducted experiments during the Holocaust. *Shooting Blind* displays the work of a collective of photographers with visual impairments.

In the series **New World Border**, the Festival considers a range of borders-geopolitical, linguistic, and performative. *The Great Mojado Invasion*, featuring cyberpunk performance artist Guillermo Gomez–Peña, tests the boundaries of the documentary genre with its ironic, post–millenial reversal of U.S.–Mexico relations. *Nu–Shu: The Hidden Language of Women in China* and *Du Coq à l'Ame* address the impact of language on cultural and political identity. *Waiting for Godot at DeGaulle* investigates the story of an Iranian refugee who has spent eleven years in the bureaucratic borderlands of a French airport; Stories

at the Moth will expand on this theme with *Border Patrol: An Evening of Stories About the Journey Through Customs.*

Other Festival highlights include: *The Child the Stork Brought Home,* an intimate look at the issues surrounding gestational surrogacy, providing perspective from both the prospective parents and the surrogate; *Gaea Girls*, an extraordinary story of female wrestlers in Japan; and *Juan, I Forgot, I Don't Remember*, a portrait of celebrated Mexican writer Juan Rulfo, as seen through the eyes of his son.

This festival is made possible with public funds from the New York State Council on the Arts, a state agency. Natural Heritage Trust, New York State Office of Parks, Recreation and Historic Preservation Canadian Consulate General, New York Cultural Services of the French Embassy, New York Consulate General of Israel in New York, Soros Documentary Fund, Open Society Institute. Open–captioning of selected videos is made possible by a grant from the TAP Plus program of the Theatre Development Fund.

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; tickets may be purchased in advance for any program on the Festival schedule. Each program is identified by a number.

PLEASE NOTE: Tickets are not refundable.

By phone: Call 212-769-5200 (Monday through Friday, 8:00 a.m. to 6:00 p.m., and Saturday, 10:00 a.m. to 6:00 p.m. Have your credit card, membership category, and program numbers ready when you call. AMEX, Visa, and MasterCard are accepted.

For a complete Festival schedule, visit: www.amnh.org.

General Public: 1 program $9; 4 programs $32; 10 programs $70.

Museum Members/Students/Senior Citizens:1 program $ 8; 4 programs $28; 10 programs $60.

Cover:Jennifer Selfridge and Joseph McFarland at *The Butterfly Conservatory*
Left, above: From *Liebe Perla*
Left, below: From *Gaea Girls*
Above: From *Salaam Bombay!*

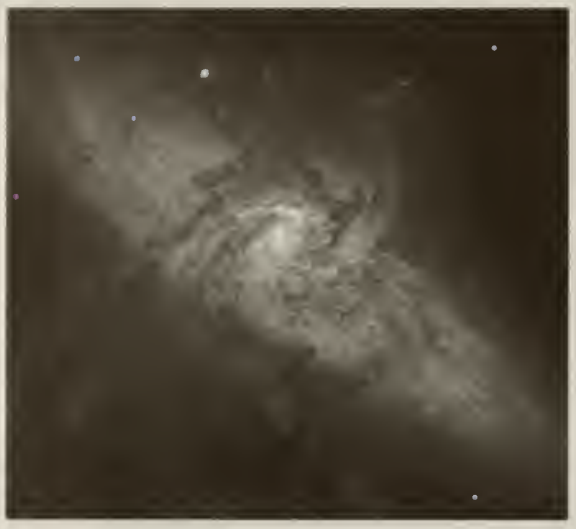
rotunda

ISSN 0194-6110
Vol. 25, No. 10, November 2000

John Davey and Caitlin Tunney, Editors
Rosemary Caulk, Director of Membership
Lynn DeBow, Vice President for Development and Membership
Ellen V. Futter, President
Anne Sidamon-Eristoff, Chairman

Rotunda is published monthly, except for a combined issue in July/August, by the Membership Office of the American Museum of Natural History, Central Park West @ 79th Street, New York, N.Y. 10024-5192. Telephone: (212) 769-5606. Web address: www.amnh.org. Museum membership of $45 per year and up includes a subscription to *Rotunda*. ©2000 American Museum of Natural History. Periodical postage paid at Rutherford, N.J., and at additional mailing offices. Postmaster: Please send address changes to *Rotunda*, Membership Office, AMNH, at the above address. Printed in the USA.

program listings



The Distinguished Authors

Einstein's Unfinished Symphony: The Search For Gravity Waves

Monday, November 13, 7:30p.m. Hayden Planetarium Theater. Code: HP313L.

When Albert Einstein developed his General Theory of Relativity, he changed forever our view of the cosmos. One of the most important predictions of the theory, however, remains unconfirmed. Marcia Bartusiak, the well-known author of *Thursday's Universe* and *Through A Universe Darkly*, takes us on a journey of discovery. From the southern United States to the distant cosmos, we search for an elusive sound: the waves in space-time caused by the gravity that holds the universe together.

After the lecture, Neil deGrasse Tyson, director of the Hayden Planetarium, will give a brief presentation of the night sky using the Zeiss Mark IX star projector. Bring your binoculars and opera glasses!

Marcia Bartusiak will also be available after the lecture to sign copies of her new book, *Einstein's Unfinished Symphony: Listening To The Sounds Of Space-Time*, on which the lecture is based.

Frontiers In Astrophysics

WIMPs, MACHOs and Little White Dwarfs

Monday, November 27, 7:30p.m. Kaufmann Theater. Code: HP302L .

Even within our own Milky Way Galaxy, the source of most of the gravity that holds us together remains unknown. Dr. Evalyn Gates, the chairwoman of the Department of Astronomy at Adler Planetarium in Chicago, presents the latest research on the topic and discusses some possible candidates that may be hiding this galactic dark matter: weakly interacting massive particles, massive compact halo objects, and fading embers of dead stars.

Friday Jazz

Starry Nights: Fridays Under the Sphere, a weekly series of live jazz at the Rose Center for Earth and Space, continues this fall with performances by Lou Donaldson, The Jazz Passengers, David "Fathead" Newman, and Jimmy Greene. The music is free with suggested Museum admission and begins every Friday at 6 p.m. Cash bar and tapas are available. Call 212-769-5100 for more information.

Conserving Biodiversity in Hudson River Habitats: New York Harbor to Troy

Thursday, November 16, 9:00 a.m.-4:30 p.m. Kaufmann Theater.

$20 for members ($30 if purchased after November 2)

$30 for non members ($40 if purchased after November 2)

The Hudson Valley is one of the richest and most biologically diverse regions in all of New York State. In recent years, biodiversity conservation has become a focal point of the state's efforts to protect the valley's habitats and watersheds.

This conference will highlight selected studies of aquatic and terrestrial environments being conducted along the entire Hudson River estuary, by the New York State Department of Environmental Conservation, New York/New Jersey Harbor Estuary Program, Hudson River Foundation, US Army Corps of Engineers, and other partners. The program is geared to scientists, resource managers, environmental planners, local officials, teachers, and members of the public concerned about sustaining the estuary's biodiversity and conserving the Hudson Valley's natural resources.

The conference is cosponsored by the Museum's Center for Biodiversity and Conservation, the New York State Department of Environmental Conservation, and the Hudson River Environmental Society.

For registration information,call 212-769-5200, or contact Hudson River Environmental Society, 6626 Stitt Road, Altamont, NY 12009-5423. 518-861-8020.

Spotlight Tours

Thematic tours of the Museum's collections.

Fabulous Felines
November 5, 1:45 p.m.

Fabulous Felines takes a look at similarities and differences among many of the big cats and the ways different cultures view them.

Wild Dogs in Life and Legend
November 4, 10:45 a.m.

Dinosaurs
November 11, 11:45 a.m.

Facts and myths about dinosaurs.

In the Beginning
November 11, 1:45 p.m.

Creation stories from around the world.

Rose Center
November 6, 13, 20, 27; 12:45 p.m. &
November 6, 13, 20, 27; 2:45 p.m.

An introduction to the Rose Center.

Northwest Coast Indians: Myths, Messages and Art
November 10, 3:45 p.m.

Extinction is Forever
November 18, 10:45 a.m.

Dr. Maturins Natural History
November 18, 1:45 p.m.

Foreign Language Tours

Deutsche Fuhrung
Novmeber 14, 28; 11:00 a.m.

Museum Highlights tour in German.

Visita del Mueso
November 10, 17; 11:00 a.m.

Museum Highlights tour in Italian.

Fossil Explainers
Mon.–Thurs., 1:00-5:00 p.m.;
Fri., 1:00- 8:00 p.m.;
Sat., 10:00 a.m.-8:00 p.m.;
Sun., 10:00 a.m.-5:00 p.m.

A free film is available in the 4th floor Orientation Center, as are trained Fossil Explainers (identified by a red button) to answer questions about fossils and paleontology.

Earth and Space Explainers
Monday–Friday, 1:00–5:00 p.m.

Earth and Space Explainers (identified by a purple button) are trained to answer questions about astronomy and geology.

Children's Programs

A Whale's Tale
Sunday, Nov. 5, 10:30 a.m. to 11:30 a.m.
(age 4, each child with one adult).
Fee: $10.00/pair.

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.

A Discovery Tour
Sunday, Nov. 5, 10:30 a.m.–1:30 p.m.
(ages 8 and 9). Fee: $15.

Take a tour of the Museum and uncover exciting discoveries at the American Museum of Natural History. Our travels will take us through the Hall of Human Biology and Evolution, where we will trace the steps of early humans; the Fossil Hall, where we will follow in the footsteps of Roy Chapman Andrews; and finally to the Hall of Planet Earth.

F Is For Frostbite, S Is For Sunburn
Sunday, Nov. 5, 10:30 a.m.-1:30 p.m.
(ages 6-7, each child must be accompanied by one adult).
Fee: $15 (child and one adult).

Journey through the hot deserts of Africa and the cold ice of the Arctic to learn how animals survive.

Weaving: A Navajo Arts and Craft
Sunday, Nov. 12, 10:30 a.m.-1:30 p.m.
(ages 9 and 10). Fee: $15.00.

Weaving is an important part of the culture and history of the Navajo people. Learn the technique of weaving and the stories that go along with it.

Fascinating Physics
Sunday, Nov. 12, 10:30 a.m.–1:30 p.m.
(ages 10 and 11). Fee: $15.00.

This "hands-on" demonstration in physics will investigate sound and vibration as you make musical instruments, play with light, laser, and reflective materials. Investigate centripetal and centrifugal forces and create CHAOS.

The Origami Story Vine
Sunday, Nov. 19, 10:30 a.m.–1:30 p.m.
(ages 9 and 10). Fee: $15.

Learn about Asian culture, traditions, and festivals through origami, storytelling, and a visit to the Hall of Asian Peoples.

Kitchen Chemistry
Sunday, Nov. 19, 10:30 a.m.-1:30 p.m.
(ages 7 and 8). Fee: $15.00.

Children will experiment with many different types of science. Some of the activities for Halloween are making an exploding volcano, turning milk into glue and making invisible ink from red cabbage.

members' programs

LECTURE

Butterflies, Spirits Through The Ages

Tuesday, December 12, 7:00 p.m.

Butterfly goddesses have reigned in cultures as diverse as Minoan Crete and Toltec Mexico. Butterflies have appeared in the poetry of Blake and Neruda, in paintings by Bruegel and Picasso, and in the dances of Native Americans, Africans, and the Japanese. Join Maraleen Manos-Jones for an inspiring lecture and slide-show journey into the myths, legends, poetry, art, and science of butterflies.

Maraleen Manos-Jones, author of *The Spirit of Butterflies: Myth Magic & Art*, began raising monarch butterflies in 1972. Five years later, she followed them to Mexico, where she became the first woman to discover their winter hibernation grounds. These experiences inspired decades of research into the cross-cultural symbolism and significance of the butterfly from ancient times to the present.

Kaufmann Theatre.

Cost: $10 Members, $12 Non-members.

Code: MM12-1

HALL TOUR

Division of Anthropology

Anthropology–The Study of People and Cultures

Friday, December 8, 6:15 p.m.

Meet the people that studied people. This tour will acquaint members with the most illustrious anthropologists of yesterday and today. Learn about the Father of American Anthropology and his most famous student, Margaret Mead. Then find out about the work of today's renowned Museum staff. As you walk through the exhibition halls, you will also learn how exhibition techniques have evolved along with the sensibilities of the times.

Join Museum Guides Suzi Zetkus and Bill Hinchman for an evening of exploration focused on our own species.

Meets in the Portrait Room off of the Teddy Roosevelt Rotunda.

Cost: Free–Members only.

Code:MM12-2

WORKSHOPS

Make Your Own Gingerbread House

Saturday, December 2, 10:30 a.m. & 2:00 p.m.; and Sunday, December 3, 10:30 a.m. & 2:00 p.m.

Come build a house of sweets for the holidays and create memories for years to come. In this beloved annual workshop, now in its 10th year, you will design and build your own no-bake gingerbread dream house using only the most delicious materials. June Myles, artist and consultant, will be on hand to assist you with construction. Members often erect new-and-improved versions each year.

This program is suitable for children ages 5 and older with an accompanying adult. Participants should bring a box for carrying their house home!

Rose Center Classroom

Cost: $45 for one child and accompanying adult–Members only

Code: Saturday 12/2, 10:30–MM12-3A
Saturday 12/2, 2:00–MM12-3B
Sunday 12/3, 10:30–MM12-3C
Sunday 12/3, 2:00–MM12-3D

Dinosaur Skins

Sunday, December 10, 10:30–11:30 a.m.

What colors were the dinosaurs? Learn what scientists know about dinosaur skins, and piece together a plaster cast of a dinosaur skin patch. Then paint your own dinosaur skin specimens using scientific guesswork and current scientific theory to determine the colors and patterns.

Pamela Popeson, artist and former director of the Museum's Fossil Reproduction Department, will present this fun and educational workshop. This program is appropriate for children of ages 5 to 8.

Room 319.

Cost: $20. Code: MM12-4.

Members' Family Holiday Party!

Please Join us

Sunday, December 3, 1:00–4:00 p.m.

Announcing our third annual afternoon of merrymaking for the whole family! Join us in the Museum's Hall of Ocean Life for activities, workshops, and live entertainment. Children can sing along with PBS award-winning folk trio Dave Grover and the Big Bear Band as they perform songs of Chanukah and Christmas.

The event is free and open to Family and Higher Level members only. You must register through Central Reservations, 212-769-5502, in order to attend.

Location: Hall of Ocean Life

Cost: Free–Family and Higher Level Members only

Code: MM12-5.

WALKING TOURS

Winter Wonderland Walks: Battery Park City and the Hudson River

Saturday, December 9, 10:00 a.m. & 12:00 noon

Embrace the winter weather on a walk through one of the City's most geologically fascinating parks with Sidney Horenstein, coordinator of the Museum's environmental programs. Explore the Hudson River along the promenade connecting Battery Park with Hudson River Park and discover the geographical and geological features that make New York Harbor a great port. Learn the dramatic history of the "river that flows two ways," including why it is called a glacial fjord. The New York and New Jersey shoreline has been continually changing since the Dutch arrived and continues to do so today. This is an opportunity to learn about the future changes and how they will affect Hudson River ecology.

Cost: $18 members, $20 non-members.
Code: MM12-6A (10:00 a.m.)
& MM12-6B (12 noon).

MEMBERS' FREE LECTURE

Unwrapped: The Mysterious World of Mummies

Monday, November 13, 7:00 p.m.

Join us to hear fascinating stories about mummies. Bob Brier, one of the world's leading experts in the field, will discuss his ground–breaking recent work. Listen as he reveals the secrets that mummies harbor!

Kaufmann Theatre
Cost–Free, Members only
Code: MM11-6.

PREVIOUSLY LISTED

Vikings: The North Atlantic Saga
Thursday, November 2, 7:00 p.m.

Join Dr. William W. Fitzhugh and discover the "real" history of the Vikings as they made their way across the North Atlantic to Greenland and America. Fitzhugh is curator of the exhibition and author of *Vikings: The North Atlantic Saga*

Cost: $10 Members; $12 non-members.
Code: MM11-1. Kaufmann Theater.

The Triumph of Evolution
Thursday, November 16, 7:00 p.m.

In this lecture, Niles Eldredge will argue that the "debate" between creationists and those bent upon defending the teaching of evolution distracts attention from an overlooked connection between biology and religion. To see this connection, we must suspend the outmoded culture war over origins, and take a fresh look at the world around us. This opens up a whole new perspective on the connections between science and religion, and points the way toward solutions for some of the most critical problems faced by life on this planet.

Cost: $10 Members; $12 non-members.
Code: MM11-2. Kaufmann Theater.

Creatures of the Sea
Tuesday, November 21, 7:00 p.m.

Richard Ellis will discuss his new *Encyclopedia of the Sea*, and will explain the proccess of creating an encyclopedia.

Cost: $10 Members; $12 non-members.
Code: MM11-3. Kaufmann Theater.

Departments of Herpetology and Icthyology.
Friday, November 10, 6:15 p.m.

Tour the departments that study the fascinating worlds of reptiles and amphibians.

Free–Members only.
Code: MM11-4.

november 2000

Current Exhibits

The Butterfly Conservatory: Tropical Butterflies Alive in Winter
October 7, 2000—May 28, 2001

Vikings: The North Atlantic Saga
October 21, 2000—January 21, 2001

Monday	Tuesday	Wednesday	Thursday
		1 Wonderful World of Butterflies and Moths Education Lecture *7:00 p.m.* China Survey Education Lecture *7:00 p.m.*	**2** Vikings: The North Atlantic Saga Member Lecture *7:00 p.m.* Biodiversity & Mountain Wildflowers Education Lecture *7:00 p.m.* Animal Drawing *7:00 p.m.*
6 Margaret Mead Fim & Video Festival Rose Center Spotlight Tour *12:45 & 2:45 p.m.* Biodiversity & Mountain Wildflowers Education Lecture *2:30 p.m.*	**7** Margaret Mead Fim & Video Festival	**8** Margaret Mead Fim & Video Festival Wonderful World of Butterflies and Moths Education Lecture *7:00 p.m.*	**9** Margaret Mead Fim & Video Festival Core Geology Education Lecture *7:00 p.m.* Animal Drawing Education Program *7:00 p.m.*
13 Unwrapped Member Lecture *7:00 p.m.* Rose Center Spotlight Tour *12:45 & 2:45 p.m.* Einstein's Unfinished Symphony Astronomy Lecture *7:30 p.m.*	**14**	**15** Wonderful World of Butterflies and Moths Education Lecture *7:00 p.m.* China Survey Education Lecture *7:00 p.m.*	**16** The Triumph of Evolution Member Lecture *7:00 p.m.* Conserving Biodiversity in Hudson River Habitats Biodiversity Event *9:00 a.m.–4:30 p.m.* Core Geology & Animal Draw *7:00 p.m.*
20 Rose Center Spotlight Tour *12:45 & 2:45 p.m.* Viking Saga Education Lecture *7:00 p.m.*	**21** Creatures of the Sea Member Lecture *7:00 p.m.*	**22** Wonderful World of Butterflies and Moths Education Lecture *7:00 p.m.*	**23**
27 Rose Center Spotlight Tour *12:45 & 2:45 p.m.* WIMPS, MACHOS, & Little White Dwarves Astronomy Lecture *7:30 p.m.*	**28** Viking Saga Education Lecture *7:00 p.m.*	**29** Wonderful World of Butterflies and Moths Education Lecture *7:00 p.m.* Walk on the Wild Side Kick-Off *7:00 a.m.* China Survey Education Lecture *7:00 p.m.*	**30** Core Geology Education Lecture *7:00 p.m.* Dear Bunny, Dear Volodya Education Performance *7:00 p.m.*

Friday	Saturday	Sunday
3 Margaret Mead Fim & Video Festival begins **Starry Nights: Fridays Under the Sphere** Jazz Performance *6:00–8:00 p.m.*	**4** Margaret Mead Fim & Video Festival **Wild Dogs in Life and Legend** Spotlight Tour *10:45 a.m.* **Museum Inside/Out** Education Program *10:00 a.m.–12 noon, 12 noon–2:00 p.m.*	**5** Margaret Mead Film & Video Festival **Fabulous Felines** Spotlight Tour *1:45 p.m.* **F is for Frostbite, S is for Sunburn** **A Discovery Tour** **A Whale's Tale** Children's Programs *10:30 a.m.*
10 Margaret Mead Fim & Video Festival **Departments of Herpetology & Icthyoogy** Member Tour *6:15 p.m.* **Starry Nights: Fridays Under the Sphere** Jazz Performance *6:00–8:00 p.m.*	**11** Margaret Mead Fim & Video Festival ends **The Natural History of Baseball** Member Expedition *8:00 a.m.–4:00 p.m.* **Dinosaurs In the Beginning** Spotlight Tours *11:45 a.m.; 1:45 p.m.*	**12** Weaving: A Navajo Arts & Craft Children's Program *10:30 a.m.* **Fascinating Physics** Children's Program *10:30 a.m.*
17 Starry Nights: Fridays Under the Sphere Jazz Performance *6:00–8:00 p.m.* **Cuisine of Eastern France** International Cuisine Series *5:00 p.m.* **Viking Saga** *7:00 p.m.*	**18** Water: Earth, Air, and Fire Education Lecture *1:30 p.m.* **Vikings for Families** Education Program *1:30 p.m.* **Extinction is Forever** **Dr. Maturins Natural History** Spotlight Tours *11:45 a.m.; 1:45 p.m.*	**19** Vikings for Families Education Program *12:30 p.m.* **The Origami Story Vine** Children's Program *10:30 a.m.* **Kitchen Chemistry** Children's Program *10:30 a.m.*
24 Starry Nights: Fridays Under the Sphere Jazz Performance *6:00–8:00 p.m.*	**25**	**26**

Phone Numbers at Your Fingertips

Museum Information	(212) 769-5100	Development	(212) 769-5151
Membership Office	(212) 769-5606	Museum Shop	(212) 769-5150
Planetarium Information	(212) 769-5900	Library Services	(212) 769-5400
Members' Birthday Parties	(212) 769-5606	Communications	(212) 769-5800
Education Department	(212) 769-5304	Volunteer Office	(212) 769-5566
Planned Giving Office	(212) 769-5119	Natural History magazine	(212) 769-5500
Discovery Tours	(212) 769-5700	IMAX®	(212) 769-5034
*toll-free	(800) 462-8687		
Central Reservations	(212) 769-5200		

Website: http://www.amnh.org

program listings

DEPARTMENT OF EDUCATION PROGRAMS

Biodiversity and Mountain Wildflowers

Four Thursdays, October 5–November 2, 7:00–8:30 p.m. (Code: ED20227L) or Four Mondays, October 16–November 6, 2:30–4:00 p.m. (Code: ED20228L). $35 for series ($31.50 members, students, senior citizens); $12 each ($10).

Among the wonders and delights of life on Earth is the spectacle of great wildflower displays in some of the harshest environments. These illustrated lectures examine the nature of this diversity and its importance in sustaining the web of life. William Schiller, lecturer in botany in the Department of Education, presents the series.

Water: Earth, Air, and Fire

Five Saturdays, October 2–February 17, once per month, 1:30–4:00 p.m. $60 for series ($48 members, students, senior citizens); $15 each ($13.50) Code: ED20231L.

This lecture series addresses the role of water in these and other processes. Each two-and-a half-hour program includes a short break and light snack for participants.

November 18
The Global Water Cycle: Past, Present, and Future

William Schlesinger discusses the ocean-atmosphere system and how the movement of ocean currents transports heat over the surface of the Earth, regulating the Earth's climate. Schlesinger also addresses how water is distributed around the Earth and how the distribution of water has varied through geologic time.

December 9
How the Ocean Got That Way

Karl Turekian discusses the origin of the oceans and how the chemistry of the oceans is established.

January 20
Hot Water in the Earth: The Genesis of Mineral Deposits

Philip Candela discusses the nature of water at high temperature and pressure, and how minerals grow from these hot, high pressure, watery fluids.

February 17
The Juicy Earth: The Role of Water in the Formation of Continents and the Dynamics of Plate Tectonics

Water in melted rock influences the formation of the continents, and water in solid rock influences the movement of the Earth's plates. Rosamond Kinzler, senior scientist in the Museum's National Center for Science Literacy, Education, and Technology, investigates how and where water exists deep in the Earth, and focuses on the role that water has played in shaping the Earth's surface as we know it.

The Wonderful World of Butterflies and Moths: A Six-part Seminar

Five Wednesdays, November 1–29, and Tuesday, December 12, 7:00–8:30 p.m. $75 for series ($67 members, students, senior citizens); $15 each ($13.50). Code: ED20232L. Limited to 25 persons.

The program will examine a range of topics, including butterflies and moths of the Northeast; butterfly gardening; taxonomy, nomenclature, and the relationship of Lepidoptera to other insect groups; basic morphology, modern classification, diversity, and abundance worldwide, including biology and behavior; observation, identification, and study, collection making, equipment and techniques; the scientist in the field and the role of the beginner/amateur; and conservation issues.

Core Geology

Three Thursdays, November 9, 16, 30, 7:00–8:30 p.m. $25 for series ($22.50 members, students, senior citizens). Code: ED20233L.

Here is an opportunity to learn the basic principles of geology: rock classification, weathering and erosion, and development of the great variety of landscapes on Earth. Participants will hear the latest ideas about the Earth's structure, and will learn why continents move and how these movements produce mountains, volcanoes, and earthquakes. The lecture will be illustrated with slides and handouts. Presented by Sidney S. Horenstein, geologist and coordinator of environmental public programs.

The Viking Saga

Four lectures, Friday, November 17-Tuesday, December 5, 7:00-8:30 p.m. $35 for series ($31.50 members, students, senior citizens); $12 each ($10).

During the Viking Age Nordic influence spread rapidly throughout the world, reaching from the Caspian Sea, to Northern Europe, and across the Atlantic to North America. In conjunction with the special exhibition *Vikings: The North Atlantic Saga*, this four-part series explores the archaeology, history, literature, and art of the famed Norse warriors. Scholars will present discussions of Viking activities in the context of the political and historic changes in Europe and Russia. For additional information, call 212-769-5176.

Friday, November 17
Art and Culture of the Viking Age

Else Roesdahl, professor, Department of Medieval Archaeology, University of Aarhus.

Monday, November 20
Viking Sagas and Social History

Jesse Byock, professor, Old Norse Studies, Department of Germanic Languages, The Cotsen Institute of Archaeology at University of California, Los Angeles.

Tuesday, November 28
Greenland Vikings

Thomas H. McGovern, professor, Bioarchaeology Laboratory, Anthropology Department, Hunter College of the City University of New York.

Tuesday, December 5
Vikings in North America

Birgitta Wallace, staff archaeologist (emerita), Parks Canada.

DEAR BUNNY, DEAR VOLODYA: The Friendship and the Feud

Thursday, November, 30, 7:00-8:30 p.m. or Saturday, December 2, 2:00-3:30 p.m. $15 ($13.50 members, students, senior citizens). Code: ED20235L.

A dramatic dialogue adapted from the letters of Edmund Wilson and Vladimir Nabokov by Terry Quinn. The play is based on the 30-year long exchange of letters between one of America's preeminent literary and social critics, Edmund Wilson, and the Russian émigré author Vladimir Nabokov. The program features Nabokov's son, Dmitri Nabokov, in the role of his father, and writer and editor George A. Plimpton in the role of Wilson.

The Faith of Biology and the Biology of Faith

Thursday, December 7, 7:00–8:30 p.m. $12 ($10 members, students, senior citizens). Code:ED20236L.

Are there parallels between the "moment of insight" in science and the emergence of the "unknowable" in religious faith? In this talk, Robert Pollack argues that an alliance between religious faith and science is not necessarily an argument in favor of irrationality: He addresses questions of ethics and morals and offers a provocative comparison the DNA "text" of the human genome and the Hebrew record of Jewish written and oral law.

Robert Pollack is a professor of biological sciences and director of the Center for the Study of Science and Religion at Columbia University, where he has received the Alexander Hamilton Medal.

His writings include *The Missing Moment: How the Unconscious Shapes Modern Science* and *Signs of Life: The Language and Meaning of DNA*, which received the Lionel Trilling Award and has been translated into six languages.

His book *The Faith of Biology and the Biology of Faith* will be available for purchase and signing.

Exercise *your body*

Walk on the Wild Side
American Museum of Natural History

Educate *your mind*

Escape the cold
Powerwalk to the farthest corners of the earth... at the American Museum of Natural History

Explore *the world*

Walk on the Wild Side

A Wednesday morning fitness walking program for
Museum members at the Contributor Level ($125) and above
15 Sessions between November 29 and March 14
Kick-Off Event November 29, 2000 (Contributor members are invited to bring guests.
Kick-Off Event is open to all members)
Schedule7:00 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 Kathryn Callaghan at (212) 313-7607.
Use the Museum's main entrance on Central Park West @ 79th Street.
Come dressed to powerwalk and set your own pace.
Coat check available.

program listings

FREE PROGRAMS

These programs are free with suggested Museum admission, and require neither tickets nor reservations.

Seating is limited and is on a first-come, first-served basis.

CHINA SURVEY

Four Wednesdays, October 11-November 29, Kaufmann Theater.

An introduction to Chinese culture, this series of lectures features presentations by leading experts in the field of Chinese studies. Co-sponsored by the China Institute, and supported in part by a grant from the Tribune New York Foundation.

Wednesday, November 1
Themes In Imperial China
7:00-8:30 p.m.

Madeleine Zelin examines the main characteristics of Imperial China, as perceived by both East and West.

Wednesday, November 15
The Arts of China
7:00-8:30 p.m.

This overview looks at the main genres and media in Chinese art. Important periods and representative pieces are introduced along with the influence of rituals, traditional thought, and technology and artistic innovations.

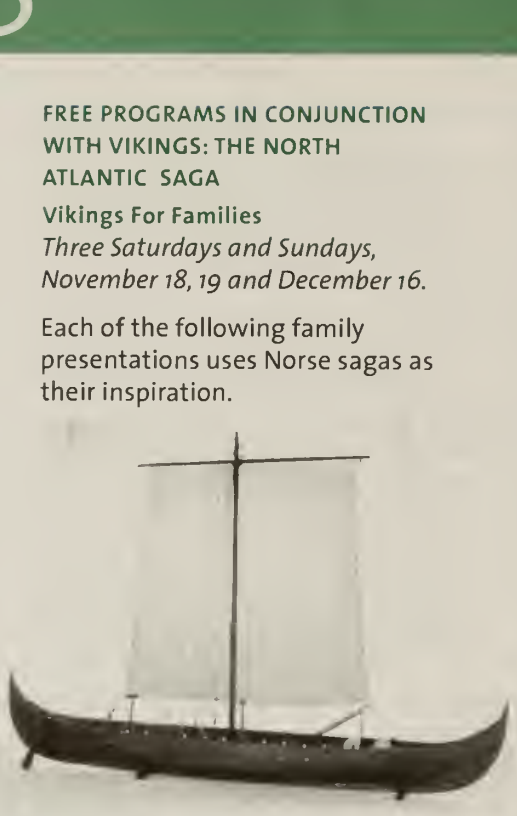
Wednesday, November 29
China in the 20th Century
7:00-8:30 p.m.

Renqiu Yu speaks about the decline of dynastic China, the rise of communism, and the founding of the People's Republic of China in 1949, and leads a discussion about some of contemporary China's most significant reforms and recent developments.

FREE PROGRAMS IN CONJUNCTION WITH VIKINGS: THE NORTH ATLANTIC SAGA

Vikings For Families
Three Saturdays and Sundays, November 18, 19 and December 16.

Each of the following family presentations uses Norse sagas as their inspiration.



Saturday, November 18
Leif Eriksson, Viking Voyager
1:30-3:00 p.m., Kaufman Theater.

Folklorist Rolf Kristian Stang uses stories drawn from the Norse saga tradition to dramatize the life of this seafaring hero for children of all ages.

Sunday, November 19
A Viking Voyage
12:30-2:00 p.m., Linder Theater.

Could a Viking ship have sailed from Greenland to Newfoundland? Writer W. Hodding Carter decided to prove that it was possible, and in 1998 he built a ship in the style of a small ocean-going knarr and set sail. Join us as he describes his tale of adventure.

Saturday, December 16
Viking Living History
10:30 a.m.-5:00 p.m., People Center.

Demonstrations, including tablet weaving, fiber arts, and arms and armor, provide insights into Viking life.

Saturday, December 16
The Vikings
2:00-4:00 p.m., Kaufmann Theater.

A new NOVA/WGBH film, *The Vikings 2000* investigates new information on Vikings, which shows them as canny merchants, expert shipbuilders, superb artisans, and bold colonizers of lands that lay beyond the edge of the known world.

VIKING SYMPOSIUM

Wednesday, December 6, 7:00-9:00 p.m. Auditorium. Free

The year 2000 is the 1000-year anniversary of the Vikings' arrival in North America. Archeological finds and historic documents confirm that Vikings reached the northeast coast of North America in the year 1000. This program by noted scholars will explore the many questions and speculations which were part of the first contacts by Europeans in a new land and the people who lived there.

Carl Jung and the Wisdom of Dreams
Friday, December 1, 7:00-9:00 p.m. Kaufmann Theater

Claire Dunne, author of a new biography of Carl Jung, will discuss Jung's personal path of self-discovery and his pioneering role in modern psychology. In addition, *A Sense of the Sacred*, a documentary film will be shown on the life and work of Helen M. Luke, who was one of Jung's devoted followers.

FIELD TRIPS, WALKING TOURS, AND WORKSHOPS

All field trips and walking tours take place rain or shine; dress for the weather. Registrants will be sent information on all starting points. For further information and to register, call 212-769-5200.

Animal Drawing

Eight Thursdays, September 28 to November 16, 7:00–9:00 p.m. $150 (materials not included). Natural Science Center. Limited to 25 persons.

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, as well as from mounted skeletons, in the Halls of African Mammals, North American Mammals, North American Birds, and Ocean Life, and in the fossil mammal halls. Quinn, senior assistant manager, Exhibition Department, discusses drawing technique, animal anatomy, and the role of the artist at the Museum.

Museum Inside/Out

Saturday, November 4 (select morning or afternoon session). Session one, 10:00a.m.-12:00 noon (ED00329X) or Session two, 12:00 noon-2:00 p.m. (ED00330X). $15. Limited to 25 persons.

The museum building and its site are a treasure trove of geology and history. On this tour, led by Sidney S. Horenstein, geologist and coordinator of the Museum's environmental public programs, participants will examine the granite and marble of the walls and facade, which come from many parts of the world.

Descriptions of where the stones originated and their geologic history will be given. Discover granites that formed deep in the crust of the earth as molten and look at the fossils of animals that lived hundreds of millions of years ago.

Give a Gift for All Seasons

A Membership in the American Museum of Natural History

Why not send a unique gift that lasts throughout the year?

Your friends and relatives can enjoy all the privileges of membership, including complimentary Museum admission, a year's subscription to *Natural History* magazine and *Rotunda* (our members' newsletter), invitations to members' previews, and much more.

Choose either the Individual $45, Dual $60, Family $75, or Contributor $125, and we'll do the rest. As a special holiday bonus, we'll send AMNH's beautiful 2001 *Natural Style* engagement calendar (a $13.95 value, pictured above), along with a personalized holiday card to announce your thoughtful gift.

Please send a one-year membership at the category indicated to the person(s) listed below:

[ ] Individual $45 [ ] Dual $60 [ ] Family $75 [ ] Contributor $125

Recipient's Name

Street Address

City State Zip

[ ] Individual $45 [ ] Dual $60 [ ] Family $75 [ ] Contributor $125

Recipient's Name

Street Address

City State Zip

Enclosed is my check for $_____ Please charge to my ____Visa ____ MC ____ Amex

Card no. _____ Expiration date _____

Signature_____

Your Name

Street Address Telephone

City State Zip

I understand that this special offer, which expires December 31, 2000, is not valid for renewing my own membership.

Please mail this form, with your payment, to: AMNH, Membership Department,
Central Park West @ 79th Street, New York, N.Y. 10024-5192. Phone: 212-769-5606. Fax: 212-769-5427.

museum notes

Personal Shopping Services Now Available

Gabriella Rosen, Personal Shopper for the Museum Shops, is available to help you with all your shopping needs, including:

- Corporate Gifts
- Holiday Shopping
- Birthdays and Special Events
- Weddings and Anniversaries
- Shopping Consulting

Hours of Availability: Monday and Friday 10:00 a.m.–5:45 p.m.

Located on the Book Mezzanine Level, Main Shop.

If interested in this FREE service, please call Gabriella at 212-769-5908.

Birthday Parties at the Museum

Linda Kaye's Partymakers brings their winning combination of education and entertainment to the AMNH with five exciting ways to transform your child's birthday into an unforgettable event. Choose from Cosmic Blast-Off, Safari Adventure, Archaeological Dig, Underwater Treasure, and Dinosaur Discovery parties. Every Partymakers celebration blends learning and wonder with traditional birthday party fun.

Each birthday child is made to feel special in a chief role leading the party. Parties are geared to children ages five and up, are planned seven days a week, and are available to Contributor and higher level members.

For more information, please contact Partymakers at 212-288-7112.

THE BUTTERFLIES ARE COMING!

Our Butterfly cookies have been created as a tribute to the return of the popular butterfly exhibition featuring a vast array of live butterflies.

This month, the Museum Food Court is pleased to offer Museum members a complimentary Espresso or Cappuccino ($2.50 to $3.25 value) with the purchase of a souvenir Butterfly Cookie.

Members of the Museum always receive a 15% discount at the Museum Food Court, Café on 4 and Café 77.

To obtain a discount, simply present you membership card at the start of your transaction.

Laser Shows

Laser Flashback, featuring the music of Jimi Hendrix, The Doors, and The Grateful Dead, 9 p.m.

Classic Rock in 3D, including Pink Floyd, Queen, Van Halen, and The Who, 10 p.m.

The shows begin October 6, and will play on Friday and Saturday evenings in the Museum's IMAX© Theater.

For more information, please call 212-769-5200.

A Members' Dining Event

Cuisine of Eastern France's Franche-Comté Region at the Museum

Restaurant Associates is pleased to announce the premiere of our **International Cuisine Series**, especially for Members of AMNH. This series is dedicated to education in the authenic cuisines of the world. We debut the series with an exciting buffet of Eastern France's Franche-Comté region, prepared by visiting Chefs from that region's leading restaurants.

Menu selections include:

Franche-Comté Vineyard Salad–
Endive, Apples, Walnuts
Yellow Wine Potato Salad
Vegetable and Foie Gras Terrine in a
Cream of Asparagus sauce
Lentils in Aspic with Morteau
Sausage and Comté Cheese
Comté Cheese Tart

Chicken in a Yellow Wine sauce
with Morels
Pike Mousse in a Chateau-Chalon
cream sauce
Duck in a Mushroom and Trousseau
Red Wine sauce
Franche-Comté Potato au Gratin

Franche-Comté Cheeses
Red Wine Pear Tart
Apple Charlotte

Accompanied by regional wines

Time: Friday, November 17, 2000,
5:00p.m.–8:00 p.m.
Place: The Annex
Cost: Adults: $45;
Children under 12: $20.
Code: MM12-7

Advance reservations are required.
For reservations, please call
212-769-5200.

American Museum of Natural History, a holiday shopping destination.

These ornaments are inspired by animals from the Akeley Hall of African Mammals at the American Museum of Natural History. Crafted in Poland by master artisans, each ornament is individually mouth-blown, and painted by hand. Zebra, Lion, Elephant and Giraffe $35ea.

Ceramic dinnerware with a delicate hummingbird motif from 19th century naturalist John Gould, from our Rare Book Collection. Dishwasher and microwave safe; 12" platter $15, teapot $22, dessert plate $5, mug $5, set of 4 cup and saucer $20.

Linens to match, guest towel $18, set of 4 cocktail napkins $26, guest towel $18, placemat $12, and sachet (not shown) $16, all made of 100% linen.

Leaves and berries, inspired by plates from a 19th century rare book titled *Maund's Botanic Garden*. 100% silk, 12"X 60", hand-rolled hem. Available in crimson, black and pebble (not shown). $34

Exclusively ours, 100% silk twill, hand-screened ties. Whimsical motif based on elephants from the Akeley Hall of African Mammals. Available in gold, green, and blue. $28

To order please call: 212.769.5030

AMERICAN MUSEUM of NATURAL HISTORY

A Gifted Idea.

Rotunda
AM. MUS. NAT. HIST. LIBRARY
Received on: 11-06-00

Museum Hours

Exhibition Halls

Sun.–Thurs.	10:00 a.m.–5:45 p.m.
Fri. & Sat.	10:00 a.m.–8:45 p.m.

The Museum Library

Tues.–Fri.	11:00 a.m.–4:00 p.m.

Museum Dining

Museum Food Court

Sun.–Thurs.	11:00 a.m.–4:45 p.m.
Fri. & Sat.	11:00 a.m.–7:45 p.m.

Cafe on 4

Sun.–Thurs.	11:00 a.m.–4:45 p.m.
Fri. & Sat.	11:00 a.m.–7:45 p.m.

Cafe 77

Daily	11:00 a.m.–4:45 p.m.

Natural Science Center

There are many wild places in the New York area, and the Center features these habitats' 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.

The Museum Shop

Mon.–Thurs.	10:00 a.m.–5:45 p.m.
Fri. & Sat.	10:00 a.m.–7:45 p.m.
Sun.	10:00 a.m.–5:45 p.m.

Parking

The three-story visitor parking garage is open; enter from West 81st Street. For public transportation and parking information, call (212) 313-PARK(7275). The Museum is well served by public transportation.

Central Reservation Coup

Program Name/Date # Members

_____

_____

_____

Total $

Mr./Mrs./Miss/Ms.

Address

City State Zip

Telephone (Day) (Evening)

Membership No.

❑ Check ❑ Am.Ex. ❑ Visa ❑ Master Card

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.

Entrances

During Museum hours, visitors can enter the building through the 77th Street entrance, the 79th Street subway entrance, the first- and second-floor Roosevelt Memorial Hall entrances (79th Street and Central Park West), or through the West 81st Street Rose Center 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.

Membership Department,
Central Park West @ 79th Street
New York, New York 10024-5192
www.amnh.org

AMERICAN MUSEUM OF NATURAL HISTORY

Don't miss the Members' Family Holiday Party, Sunday, December 3rd at 1:00 p.m.!

100189909