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

rotunda

ol. 26 No. 1 January 2001

Members' Newsletter

umpback whales in madagascar

70
52

26
1
2001

American Museum of Natural History

the humpbacks of antongil bay

Antongil Bay nestles in the northeast corner of the island nation of Madagascar and, from there, spills into the Indian Ocean. From July through September, these waters are the home to over a thousand humpback whales, who migrate here each year to breed and to calve. For the last five breeding seasons, biologist Howard C. Rosenbaum and a team of researchers and scientists have been here to meet them.

THERE IS MUCH ABOUT HUMPBACK WHALES THAT REMAINS A MYSTERY

The Madagascar project, cosponsored by the Museum's Center for Biodiversity and Conservation (CBC), and the Wildlife Conservation Society (WCS), began in 1996, as an attempt to assess what remained of the humpback population in the Madagascar region.

Historically, there were well over 100,000 humpback whales swimming in the Earth's oceans. Today, as a result of more than a century of commercial whaling and poaching, the worldwide humpback population is approximately 30,000. The humpback received official protection in 1968, and is on the Endangered Species List. The humpback population and their habitat, however, remain fragile.

From their base on the small island of Nosy Mangabe, Rosenbaum's team take to the water each season: observing whale behavior, making visual identifications of individual whales based on distinguishing marks, recording whale songs, and taking tissue samples-with darts and crossbow-which yield DNA.

The DNA and photographic information, once analyzed, is assimilated into a comprehensive database; this information will facilitate collaboration with researchers from around the world. The data helps scientists to assess population accurately, and to gauge the levels of interaction between different whale populations. These discoveries, collectively, will one day provide scientists with the ability to track the whales through their feeding and breeding seasons, as they travel thousands of miles on their migratory cycles.

The initial results from this series of expeditions confirm Antongil Bay as a major winter breeding ground in the Southern Hemisphere. Over the last five years, Rosenbaum and his coworkers have been able to estimate a population of over 1,000 whales. The 2000 expedition alone may have added as many as 200 new whales to the population tally.

As the numbers of identified whales grow, so does the scope of the project. The Madagascar team is expanding their involvement in the region and beyond. Rosenbaum and his coworkers in the field are advising developing conservation movements in several African countries, and are playing a significant role in Madagascar's attempts to develop strong conservation practices. This year, a law was passed governing ecotourism and whale watching in Madagascar's coastal territories, providing protection for the whales as they migrate to and from their breeding ground. This law resulted from the work of the Madagascar team.

Ecotourism, and community participation in conservation efforts to protect the humpback and their habitat, are two of the keys to insuring the survival of the whales. Rosenbaum trains local naturalists, giving them the skills and information that help them participate in the growth of this conservation development activity. He also conducts workshops that bring together local officials and conservation workers from around Madagascar, fostering deeper collaboration.

Despite the efforts of scientists like Howard Rosenbaum and his team, there is much about humpback whales which remains a mystery. For example, no one knows precisely the routes these whales travel throughout the year; it is difficult to track their movements once they leave the breeding ground. In conjunction with genetic and photographic studies, new technology is making this tracking possible. Rosenbaum's team plan to use satellite tagging, which will allow the scientists to track whale movements when visual contact is not possible, and ultimately

rotunda

ISSN 0194-6110
Vol. 26, No. 1, January 2001

Caitlin Tunney, *Editor*
Rosemary Caulk, *Director of Membership*
Lynn DeBow, *Vice President for Development and Membership*
Ellen V. Futter, *President*
Lewis W. Bernard, *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*.

©2001 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.

Photographs by Howard Rosenbaum

better determine the whales' migration routes and habitat use.

Here's what we do know about the migration of these whales: The whales in the Antongil Bay most likely journey from Antarctica, where they feed in the cool, polar water. When breeding season arrives, the whales migrate 4000 miles north, seeking the warmth of tropical oceans in order to breed, calve and nurse. One goal of Rosenbaum's research is to gauge the extent to which the whales return to the same breeding ground each year.

Another mystery of the humpback is their fabled songs. Long the stuff of legend, these songs constitute a true scientific mystery as well. All the whales that populate a particular breeding ground sing the same song or a variaton, regardless of where they disperse to spend the remainder of the year. The songs change from year to year, and vary from ocean to ocean, and all the whales all in a particular ocean seem to make the change. What kind of a communication tool are these songs? Are they specific mating messages from male to female? No one yet knows for sure, but evidence is mounting to test these hypotheses.

One scientist, working with Rosenbaum, is attempting to find out more about song from humpback whales in Madagascar. Yvette Razafindrakoto, who is the leading humpback expert in Madagascar and has collaborated with Rosenbaum on the expeditions from 1996 through 2000, is studying the songs of the humpback. Humpback songs are structurally very complex; they consist of repeating sound phrases which join together to make themes. Razafindrakoto is working to understand the relationship of songs between humpbacks of Madagascar and other populations.

What is happening off the coast of Madagascar is an attempt to better characterize the humpback, so we may better understand how to protect them and their critical habitat. The impact, however, will be felt far beyond this region.

Through scientific research, capacity building government regulation, community involvement, and the use of the latest technologies to protect this critical habitat, Rosenbaum and his colleagues hope to ensure that these whales can thrive again in Antongil Bay, and around the world.

The Museum's work on humpback whales is supported by the Regina Bauer Frankenberg Foundation.

For more information on this expedition or other CBC-sponsored work, please visit the CBC website at http//:www.amnh.org/science

members' programs

LECTURE

Author K.C. Cole

The Chameleon at the Center of the Cosmos:

Why "Nothing" Is Too Wonderful To be True

Wednesday, February 28
7:00 p.m.

Join best selling author K.C. Cole to hear how the concept of "nothingness" has become a a key cosmic something–more fundamental even than space, time and matter. Cole will discuss how what we normally think of as "nothing" can give birth to entire universes–and perhaps did give birth to our own. Cole will lead us, step by step, to an understanding of this fascinating concept, describing how nothing is at the center of everthing.

K.C. Cole is a science columnist for the *L.A. Times*, and author of the best seller *The Universe and the Teacup: The Mathematics of Truth and Beauty.* Cole's most recent book is *The Hole in the Universe: How Scientists Peered Over the Edge of Emptiness and Found Everything.*

Kaufmann Theater
Cost: $10 Members, $12 non-members
Code:MM2–1

WALKING TOUR

Winter Wonderland Walk: Northern Central Park

Saturday, February 10
10:00 a.m. and 12:00 noon

Find out why Olmstead and Vaux found northern Central Park reminiscent of the Adirondacks! Join Sidney Horenstein, Coordinator of the Museum's Environmental Programs, to explore the area's wild, rocky, and heavily wooded terrain. Visit the remains of a War of 1812 fortification, view the vestiges of a natural stream that flowed through the park, and examine many interesting botanical and geological features, including the park's only glacial pothole. You'll also learn about the historic associations that correspond to the area's geology.

Cost: $18 Members, $20 non-members
Code: MM2–2A (10:00 a.m.)
Code:MM2-2B (12:00 noon)

BEHIND THE SCENES TOUR

Behind the Scenes in the Hayden Planetarium

Monday, February 5
6:30 p.m.

The Hayden Planetarium in the Rose Center for Earth and Space opened one year ago, bringing a brand-new view of the Universe to Museum-goers.

Celebrate the Hayden Planetarium's anniversary by exploring the sphere's inner workings, and by learning about the research conducted by Planetarium staff. Visit the Planetarium's new Perkin Reading Room, where Frank Summers, astrophysicist, Department of Astrophysics, will demonstrate the science and beauty of astronomy visualizations. Summers will discuss how research computer simulations are transformed into moving sequences and 3D computer interactives that are both accurate and artistic. Then join Charles Liu, astrophysicist, Department of Astrophysics, in the Space Theater, for a presentation on the Zeiss Mark IX star projector. Custom designed for the Hayden Planetarium, the projector is the only one of its kind in the world, and possesses the unique capabilities that allow it to project the night sky more accurately than has ever been done before. This evening promises to provide a fascinating insiders' look at how Planetarium staff is bringing science's most current view of the universe to the public.
Limited to 60 participants.
Meets at the Museum's Security Entrance, Central Park West at 79th Street, lower level.
Cost: $25–Members only
Code: MM2–3

FREE HALL TOURS

Department of Mammalogy

Friday, February 16
6:15 p.m.

Tour the halls with museum docents Suzi Zetkus and Bill Hinchman and learn more about mammals in 90 minutes than you ever dreamed possible! Join us to explore the Halls of Fossil Mammals, African, Asian, and North American Mammals. From there, travel into the Oceans, to meet our seagoing cousins.

Finally, we'll examine our own evolutionary ancestors, the Primates. In addition to providing a fresh look at these familiar animals, Zetkus and Hinchman will discuss the collections and the people who made these exhibits possible.

Meets in the Portrait Room
Cost: Free–Members only
Code:MM2–4

Tiwanaku gold mask, Hall of South American Peoples. AMNH Library archives.

ll That Glitters: he Romance of Gold

istory, Myths, Lore, and Science of a etal of Magic

riday, February 23
:15 p.m.

his special tour explores the glory of old. Throughout the ages gold has reoccupied mankind. The metal of reams and of kingdoms, it is a ubstance seemingly made of wonder. old is a symbol of status for the elite nd often has been associated with ods.

What is it about gold that makes it so nique? Why is it so desirable and highly alued as an ornament and in echnology?

The Asante kingdom of Africa's "Gold Coast," the Andean cultures of South America, the Aztecs of Mesoamerica, and diverse peoples throughout Asia are represented in gold objects in the Museum's collections. Museum docents Donna Walcavage and Larry Basset reveal how mankind has used and is using element number 72 on the periodic table of elements.

Tour with us, and discover how mankind's imagination and creativity has transformed a metal into a substance of extrordinary meaning.

Meets in the Portrait Room
Cost: Free–Members only
Code:MM2–5

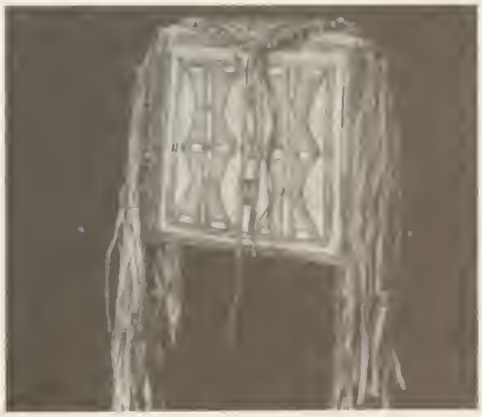
CHILDRENS' WORKSHOP

Plains Indian Parfleche

Saturday, February 3, 1:00 and 2:30 p.m.
Saturday, February 10, 1:00 p.m.

From reeds and rushes to branches and hides, Native Americans used a wide variety of natural materials to make everyday household items and objects of art. Learn all about different kinds of Native American crafts in this interactive family workshop. Then create your own parfleche, a buffalo hide envelope Plains Indians women made and used to carry household and personal belongings. Abby Remer, arts and cultural education consultant and author of *Discovering Native American Art*, will lead this workshop for children ages 5 to 8 and their parents.

Rose Center Classroom
Cost: $22–Members only, for 1 child w/parent
Code: MM2–6A (February 3, 1:00 p.m.)
Code: MM2–6B (February 3, 2:20 p.m.)
Code: MM2-6C (February 10, 1:00 p.m.)



PREVIOUSLY LISTED

Winter Wonderland Walks: Prospect Park

Saturday, January 20th
10:00 a.m. and 12:00 noon.

Join Sidney Horenstein, coordinator of the Museum's environmental programs, to explore many of the geological features in the Park.

Cost: $18 Members, $20 non-members
Code: MM1-A(10:00a.m.) and MM1-B(12:00pm)

Nature Underground: A Tour of Subway Art

Sunday, January 21
12:00 noon

Learn about the subway's most outstanding nature–themed artwork from John Tauranac. Following a slide lecture at the Museum, we'll explore the subterranean art in several stations.

Cost: $30–Members only
Code: MM1-2
Room 319

Division of Invertebrate Zoology

Saturday, January 6
6:15 p.m.

In this hall tour, Museum docents Suzi Zetkus and Bill Hinchman will discuss the Museum's outstanding collections of invertebrates.

Meets in the Portrait Room
Cost: Free–Members Only
Code: MM1-3

Behind the Scenes with Butterflies

Tuesday, January 23
6:30, 7:00 and 7:30 p.m.

Tour the Museum's collection storage with entomologist Eric Quinter, for a look at specimens and a presentation on the techniques used to classify and conserve them. Then visit the Butterfly Vivarium after hours.

Meets at the Security entrance
Cost: $25–Members only
Code: MM1-5A, MM1-5B, MM1-5C

program listings

Frontiers in Astrophysics Chandra: The X-ray Universe Revealed

Monday, January 22, 7:30 p.m.
Code: HP304L
Cost: $8 Members, $10 non-members

Since its launch last year, the Chandra X–ray Observatory has shown us dazzling images of a high–energy universe never before seen. The astronomers who have worked with Chandra and the data from this remarkable instrument are beginning to unveil the mysteries of some of the most engergetic and interesting phenomena in the cosmos. David Helfand, professor at Columbia University and one of the leaders of the Chandra project, discusses the telescope, its capabilities, and the results gleaned from its first year of operation.

This astronomy lecture will be held in the Hayden Planetarium Theatre in the Rose Center for Earth and Space. After the lectures, 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!

DEPARTMENT OF EDUCATION PRESENTS...

Of Earth and Sky: Stories of Our Environment

January 2001

A series of films, lectures, performances and family workshops explore how humans respond to their celestial and terrestrial surroundings.

All ***Of Earth and Sky*** programs are free with suggested Museum admission.

Registration is required for the Sunday, January 21 Drum Making and Rhythm Workshop.
To register, please call 212-769-5200.

Leonhart People Center
1:00 p.m. to 5:00 p.m.

Saturday and Sunday, January 13 & 14

Performance: Trio Típico Venezolano

1:00 & 4:00 pm

The music and songs of Trio Típico Venezolano echo the rhythms of the Venezuelan landscape and lifestyle: their melodies conjure the aromas of coffee and salted meat, while their maracas sound the sifting of grains in the Andes highlands.

Videos from Chiapas Media Project

The Chiapas Media Project is a bi-national partnership that provides training in videography, media, and computers in the indigenous communities of Chiapas, Mexico. Discussion with Alexandra Halkin, Co-Director of the Chiapas Media Project, follows the screening.

Video: *The Strength of the Indigenous People of Mut Vitz*

Chiapas Media Project
27 min., 2000
(Tzotzil and Spanish, w/ English subtitles)
The Mut Vitz coffee cooperative is a collective of more than 1000 members. This video on Mut Vitz demonstrates the entire organic coffee production process: from seedling transplant, to cultivation, to the roasted bean.

Video: Defending the Forest: The Struggle of the Campesino Environmentalists of Guerrero

Chiapas Media Project
18:10 min., 2000
(Spanish, w/ English subtitles)

In 1994, on the heels of NAFTA, the transnational Boise Cascade Corporation began the exploitation of thousands of kilometers of virgin forests in Guerrero. This film documents the activities of the Organization of Campesino Environmentalists (O.C.E.), whose objective is to stop this exploitation of their forests.

Lecture: Community Environmental Justice

3:30 p.m.
UPROSE, United Puerto Rican Organization of Sunset Park, is non-profit corporation dedicated to youth, families and the environment. Elizabeth C. Yeampierre, Executive Director of UPROSE, Inc., speaks about the development and implementation of its programs.

Saturday and Sunday, January 20 & 21

Performance: From the Earth: Everyone Has a Heritage

1:00 & 4:00 p.m. ***(Saturday only)***
From the earth to your hands, through

ve performance, *Heritage O.P.* brings
) you the sounds of African
struments.

lm: *Tiger's Apprentice*
irector M. Trinh Nguyen, 1998, 57 min.
00 pm
l. Trinh Nguyen battles cultural
ssumptions and government
ensorship as she travels to Vietnam to
ocument her great-uncle's herbal folk
nedicine practice .

ecture: Biocultural Diversity Hotspots
:00 pm
hrough legends, indigenous music, and
slide presentation, Ethno–botanist and
ative Californian Eugene Chung will
xplain how biological and cultural
iversity correlates with economic
tability and linguistic evolution.

unday, January 21 (only)

amily Workshop: Drum Making and
hythm Workshop, *Heritage O.P.*
:30 to 5:00 p.m.
alder Lab
ode: ED00221M
imited to 25 participants-registration
equired. Please call 212-769-5200.
Adults and children of all ages are
nvited to participate in this instrument-
naking workshop. Heritage O.P. uses
ecycled materials and teaches
participants how to make and play their
own drums.

Display: From Trash to Art
Through January 24, weekends only.
1:00 to 5:00 p.m.
Leonhardt People Center
This program features an art exhibit
which redefines our perception of trash.
Artists present recycled art created from
found objects collected from the streets
of New York. Curated by Philip de Loach
and Rebecca Smith.

january 2001

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 Rose Center Spotlight Tour *2:45 p.m.*	**2**	**3** Walk on the Wild Side 7:00 a.m. *Each* Wednesday in January, for Contributor and higher level Members	**4**
8	**9** Rose Center Spotlight Tour *2:45 p.m.*	**10**	**11**
15 Rose Center Spotlight Tour *2:45 p.m.*	**16** Rose Center Spotlight Tour *12:45 p.m.*	**17**	**18**
22 Chandra: The X-Ray Universe Revealed Astronomy Lecture *7:30 p.m.* Rose Center Spotlight Tour *2:45 p.m.*	**23** Behind the Scenes with Butterflies Members Tour *6:30, 7:00 & 7:30 p.m.* Rose Center Spotlight Tour *2:45 p.m.*	**24**	**25** New York Microscopical Society Meeting *7:30 p.m.*
29 Rose Center Spotlight Tour *2:45 p.m.*	**30**	**31**	

Friday	Saturday	Sunday
5 **Starry Nights: Fridays Under the Sphere** Jazz Performance *6:00–8:00 p.m.*	**6** **Division of Invertebrate Zoology** Members Tour *6:15 p.m.* **In the Beginning** Spotlight Tour *1:45 p.m.*	**7**
12 **Starry Nights: Fridays Under the Sphere** Jazz Performance *6:00–8:00 p.m.*	**13** **Of Earth and Sky: Stories of Our Environment** Multicultural Programs *1:00 p.m.–5:00 p.m.* **Incredible Dinosaurs** Spotlight Tour *11:45 a.m.*	**14** **Of Earth and Sky: Stories of Our Environment** Multicultural Programs *1:00 p.m.–5:00 p.m.*
19 **Starry Nights: Fridays Under the Sphere** Jazz Performance *6:00–8:00 p.m.*	**20** **Winter Wonderland Walks: Prospect Park** Members Walking Tour *10:00 a.m. and 12:00 noon* **Of Earth and Sky: Stories of Our Environment** Multicultural Programs *1:00 p.m.–5:00 p.m.* **Hot Water in the Earth** Education Program *1:30–4:00 p.m.*	**21** **Nature Underground: A Tour of Subway Art** Members Walking Tour *12:00 p.m.* **Of Earth and Sky: Stories of Our Environment** Multicultural Programs *1:00 p.m.–5:00 p.m.* **Human Evolution** Spotlight Tour *1:45 p.m.*
26 **The Evolution of Dogs** Members Tour *6:15 p.m.* **Starry Nights: Fridays Under the Sphere** Jazz Performance *6:00–8:00 p.m.*	**27**	**28**

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
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 LISTINGS

Hot Water in the Earth: The Genesis of Mineral Deposits

Saturday, January 20
1:30–4:00 p.m.
$15 ($13.50 Members, students, senior citizens)

Hot water circulates ceaselessly throughout the fractured and porous upper crust of planet Earth. This water delivers heat to geothermal systems and hot springs, and also redistributes chemical elements within the crust, including the metals that fuel our modern society and the chemicals that constitute many beautiful mineral specimens. Philip Candela discusses the nature of water at high temperature and pressure.

The Juicy Earth: The Role of Water in the Formation of Continents and the Dynamics of Plate Tectonics

February 17
1:30–4:00 p.m.
$15 ($13.50 Members, students, senior citizens)

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. She addresses processes occurring deep within the Earth's interior that fundamentally affect the Earth's outermost shell, its crust. A short break and light snack will be provided for participants.

The Ecology of Zebra Sociality and Conservation: Different Stripes for Different Types

Thursday, February 8
7:00–8:30 p.m.
$12 ($10 Members, students, senior citizens, Earthwatch members)

In keeping with their distinctive stripes, Zebras also exhibit distinctive forms of social organization. The emergence of these different patterns reflects the ways females and males of each species perceive, and then exploit, their environments. Explore how landscapes shape the evolution of social relationships, and how the patterning of these relationships influence conservation strategy. This lecture 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.

Plains Zebra. AMNH Library archives.

AMNH Library archives.

potlight Tours

hematic tours of the Museum's
llections. Tours begin at the entrance
the Akeley Hall of African Mammals,
the second floor.°

the Beginning

nuary 6; 1:45 p.m.
reation stories from around the world.

credible Dinosaurs

nuary 13; 11:45 a.m.
uths and myths about Dinosaurs.

uman Evolution

nuary 21; 1:45 p.m.
istorical review of human evolution.

Rose Center Tour

January 6; 11:45 a.m.
January 8, 15, 22, 29; 2:45 p.m.
January 9, 23; 2:45 p.m.
January 16; 12:45 p.m.

An introduction to the Rose Center.

Foreign Language Tours

Deutsche Fuhrung

January 2, 9, 30; 11:00 a.m.

Museum Highlights tour in German.

Visita del Museo

January 4,11; 11:00 a.m.

Museum Highlights tour in Italian.

Identification Day

Saturday, February 24, 2001
1:00–4:30 p.m.
Free with Museum admission
Birds of the World Hall, second floor

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.

For additional information, call 212-769-5176.

Children's Workshop

Sunday, January 21
10:30 a.m.–1:30 p.m.
Fee: $15

Tzawarmarks, three Mitimaes artists from Salasaca, Ecuador, will perform using musical instruments of their country.
Children will learn how to make and play these instruments while discovering the world of Ecuadorian music. A visit to the hall of South American People to see instruments of the Sipan and Amazonian cultures is also included.
Bring a bag lunch.

program listings

Biodiversity and Seaside Plants

Four Mondays, March 5–26
2:30–4:00 p.m. (ED21202L) or
Four Thursdays, March 8–29
7:00–8:30 p.m. (ED21203L)
$30 for series ($27.00 Members, students, senior citizens)
$12 each ($10 Members, students, senior citizens)

This slide-illustrated series by William Schiller, lecturer in botany at the Museum, focuses on flora at the waters' edge.

March 4
Flowering Plants of Salt Marshes, Dunes, and Rocky Coasts

March11
Intertidal Seaweeds

March 18
In the Kelp Forest and Along the Mangrove Coast

March 26
In the Maritime Woods

THE SCIENCE OF: *Land of the Mammoth*

Wednesday, March 7
7:00–9:00 p.m.
IMAX Theater

This program is free to the public.
Reservations are required.
For tickets call 212-769-5200.

Land of the Mammoth, Discovery Channel's sequel to last year's groundbreaking documentary *Raising the Mammoth*, chronicles the next chapter in French explorer Bernard Buigues' expedition to the site of the "Jarkov" mammoth in Siberia.

A brief preview of *Land of the Mammoth*, will be followed by a panel discussion and question/answer session conducted by an international panel of scientists from the Mammuthus expedition and the Museum.

AMNHLibrary archives.

History and Life: An AARP Lecture Series

Three lectures, starting
Wednesday, March 7
2:00–3:30 p.m. (ED21205L)
$25 for series ($20 Museum and AARP Members)
$12 each ($8 Museum and AARP Members)

This series is co-sponsored by the American Association of Retired Persons.

March 7
Nonzero: The Logic of Human Destiny
Author Robert Wright's discusses the trajectory of the history of life, from primordial ooze to the World Wide Web.

March 14
The History of Time
Museum astrophysicist Charles Liu explores what is known about the nature of the universe, referencing Stephen Hawking's reknowned book.

March 21
Ecology and History on the Hudson River
In this slide-illustrated talk, Museum educator and ecologist Jay Holmes outlines the natural history of one of the ecological jewels of New York State.

Geology of the Revolutionary War in Metropolitan New York

Three Thursdays, March 8-22
7:00–8:30 p.m. (ED21204L)
$25 for series ($22.50 Members, students, senior citizens); $12 each ($10 Members, students, senior citizens)

This lecture series on "military geology," by Sidney S. Horenstein, a geologist and coordinator of environmental public programs at the Museum, explains how our region's geology dictated battles and troop movements during the Revolution.

Reading and Interpreting Maps

Two Wednesdays , March 14 and 21
7:00–8:30 pm (ED21303X)
$20 for series ($18 Members, students, senior citizens); $12 each ($10 Members, students, senior citizens)
Limited to 25 persons

In this workshop, participants will study a variety of maps: topographic, geologic, botanic, as well as maps used in military geology. Presented by Sidney S. Horenstein, a geologist and coordinator of environmental public programs at the Museum.

Animal Drawing

Eight Thursdays
March 8–April 26
7:00–9:00 p.m.
$150 (materials not included)
Limited to 25 persons

Join Museum artist Stephen C. Quinn to sketch gazelles on the African plains and timber wolves in the snow. After Museum hours, students draw from the famed dioramas, as well as from mounted skeletons. Quinn, senior assistant manager, Department of Exhibition, discusses drawing technique, animal anatomy, and the role of the artist at the Museum.

Fossil Explainers

Monday–Thursday, 1:00-5:00 p.m.
Friday, 1:00- 8:00 p.m.
Saturday, 10:00 a.m.–8:00 p.m.
Sunday, 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–Thursday, 1:00–5:00 p.m.
Friday, 1:00 –7:00 p.m.
Saturday, 10:00 a.m.–7:00 p.m.
Sunday, 10:00 a.m.–5:00 p.m.

Earth and Space Explainers (identified by a purple button) are trained to answer questions about astronomy and geology.

Coming to the Museum's IMAX Theatre

Ocean Oasis

Beginning January 13, 2001

Plunge into the wildly spectacular Sea of Cortez to witness an underwater world of extraordinary sea life....

Then soar to the snow-capped peaks of the Sierra San Pedro Martir....

And come to rest on the pristine desert shores of the Baja, California Penninsula.

Ocean Oasis is an unforgettable giant screen film experience, a visually stunning journey through untamed paradises, whose biodiversities range from the tropical to the alpine.

Please call 212-769-5200 for reservations.

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 *Birthdaybakers, Partymakers* bring their winning combination of education and entertainment to AMNH with five exciting ways to transform your child's birthday into an unforgettable event. Choose from Cosmic Blast-Off, Safari Adventure, Global Mysteries, 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.

A Warm Treat for Members

This month, Restaurant Associates invites Museum Members to take a break from the winter chill by visiting any one of our foodservice locations.

This month, we're offering all Members their choice of a hot beverage–free–when they purchase any one of our pastry selections.

Hot beverages include Espresso, Cappuccino, Latte, Hot Chocolate, Coffee, or Tea, a $1.25 to $3.25 value.

As always, Members receive a 15% discount at the Museum Food Court, Café on 4, and Café 77. To obtain the discount, simply present your Membership card at the start of your transaction.

Friday Jazz

Starry Nights: Fridays Under the Sphere, a weekly series of live jazz at the Rose Center for Earth and Space, continues in January.

The set begins every Friday at 6 p.m. Cash bar and tapas are available.

Call 212-769-5100 for more information.

IMAX Schedule

To Be An Astronaut (Through January 12)

Sunday–Thursday:
10:30 a.m., 12:15 p.m., 2:00 p.m
3:45 p.m.
Friday–Saturday:
10:30 a.m., 12:15 p.m., 2:00 p.m
3:45 p.m., 5:30 p.m., 7:15 p.m.

Ocean Oasis (Begins January 13)

Sunday–Thursday:
10:30 a.m., 12:20 p.m., 2:10 p.m., 4:00 p.m.,
Friday–Saturday:
10:30 a.m., 12:20 p.m., 2:10 p.m., 4:00 p.m., 5:50 p.m., 7:40 p.m.

Dolphins

Sunday–Thursday:
11:15 a.m., 1:00 p.m., 2:45 p.m., 4:30 p.m.
Friday–Saturday:
11:15 a.m., 1:00 p.m., 2:45 p.m., 4:30 p.m., 6:15 p.m.

Schedule and prices are subject to change without notice. Please contact 212–769–5200 for up-to-date information.

THE NATURAL HISTORY SOCIETY WELCOMES NEW CHAIRMAN

Last month Anne Sidamon-Eristoff, the Museum's well-loved Chairman of the Board of Trustees from 1994-2000, was delighted to announce to the Museum community that Honorary Trustee Caroline M. Macomber had accepted her invitation to serve as the new Chairman of the Natural History Society.

The Natural History Society was inaugurated in 1993 to thank and recognize all the thoughtful and generous friends of the Museum who have included the Museum in their estate plans. When the new Society was formed, Mrs. Macomber and her husband John were among the first to come forward and notify the Museum of a bequest in their Wills. "Well before the inception of the Museum's Natural History Society and planned giving program," said Mrs. Macomber, "my husband and I had recognized the importance of providing for the Museum's future. Therefore, when Anne asked me if I would be willing to step into the role of Society Chairman, I readily accepted."

Mrs. Macomber's involvement with the Museum dates back to the 1950s, when she first joined the Women's Committee. Subsequently, in 1970, she became Chairman of the Committee and, in 1972, a member of the Board of Trustees. Ever since then, she has energetically served the Museum, participating in a wide variety of Board responsibilities, including committees for Development, Budget and Finance, Exhibitions, Collections, Education Policy, and Board Nominations. Always active in the Museum's fund raising efforts, Mrs. Macomber served in 1994, 1995, and 1996 as Chairman of the Environmental Lecture Luncheon, a benefit held each spring in memory of AMNH Trustee Julia Middleton Serena di Lapigio. Most recently, through their participation in the Museum's Campaign for the New Century, Mr. and Mrs. Macomber helped to launch the Education Department's new Teacher Training Program.

Caroline M. Macomber

Commenting on Mrs. Macomber's Chairmanship of the Natural History Society, Mrs. Sidamon-Eristoff said, "For 30 some years, she has been among the Museum's most wonderful and deeply respected Board members. Under her leadership, the Natural History Society cannot fail to become an increasingly vital and significant force in securing the future of this Museum."

For further information about the Natural History Society, please call the Planned Giving Office at (212) 769-5119 or toll-free at (800) 453-5734.

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.

Membership Department,
Central Park West @ 79th Street
New York, New York 10024-5192
www.amnh.org

Central Reservation Coupo

Program Name/Date # Memb

Rotunda.
American Museum of Natural History
Received on: 01-11-01

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.

rotunda

VOL. 26 NO. 2 FEBRUARY 2001

MEMBERS' NEWSLETTER

0
2
5
26
2
2001

galactic armillary sphere at the new judy and josh weston pavilion

AMERICAN MUSEUM OF NATURAL HISTORY

welcome to the weston pavilion

The Judy and Josh Weston Pavilion, opening February 3rd, 2001, is a spectacular new gateway to the Museum, one that will have special meaning for Museum Members.

Located on Columbus Avenue at 79th Street, the Weston Pavilion is, in every sense, an ideal meeting place. This entrance, designated for Museum Members and their guests, provides the perfect place for Members to meet friends and family, and to take advantage of the special Member services that the Pavilion will provide.

Set within the newly landscaped Theodore Roosevelt Park, the Pavilion connects the Museum very naturally with its Upper West Side neighborhood. In addition, the Pavilion is within easy reach of the Museum's most exciting recent additions, including the Arthur Ross Terrace and the Rose Center for Earth and Space.

Polshek Partnership Architects, who made architectural history with their design of the Rose Center, have returned to AMNH to create the Pavilion. This simple and elegant structure provides an open and tranquil space for Members to orient themselves at the beginning of their Museum visit; it also allows unfettered interaction between the Museum and its Columbus Avenue environment.

The entire façade of the Pavilion is transparent, constructed of brilliantly clear "water white" glass, inviting the outside in. A circular granite plaza to the south of the Pavilion is framed by a new garden of grasses, bamboo and evergreen trees; the plaza spills out into Theodore Roosevelt Park, and ultimately to Columbus Avenue, providing easy access to the Museum. The plaza also will be the home of *The New York Times* Capsule for the new millennium.

Once inside, Members and their guests may take advantage of a host of services, designed to simplify and enhance their Museum experience.

Membership staff will be on hand to expedite Members' admission and to provide tickets for Museum programs and events, including Space Shows. The Membership desk will offer a wide variety of printed informational material from throughout the Museum, and will provide a

COVER IMAGE: Rendering of The Galactic Armillary Sphere, Weston Pavilion. Armillary sculpture designed by David Harvey, Vice President for Exhibition, assisted by Exhibition staff members Joey Stein and Molly Lenore.
Rendering by Molly Lenore.

German astrolabe, gilded brass, 1581.
Part of the Bliss Astronomy Collection
AMNH Special Collections

rotunda

ISSN 0194-6110
Vol. 26, No. 2, February 2001

Caitlin Tunney, *Editor*
Rosemary Caulk, *Director of Membership*
Lynn DeBow, *Vice President for Development and Membership*
Ellen V. Futter, *President*
Lewis W. Bernard, *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*.

©2001 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.

"New York is home to many marvelous institutions, but none captures the connection of peoples better than this one!"

Judy Weston

Judy and Josh Weston

c nvenient location to pick up a vance reservation tickets. For P:rons, there will be a private coat c set available.

J dy and Josh Weston, whose p rsonal connection to and love of t e Museum prompted an e traordinary gift, have generously p vided funding for the Pavilion. L ngtime, loyal supporters of the M useum, the Westons chose to make A MNH the recipient of the largest p ilanthropic donation their family h s ever made.

J dy Weston is a particularly avid-and a tive-supporter of the Museum; she h s been a dedicated volunteer here s nce 1992. "New York is home to m any marvelous institutions," she s ys, "[but] none captures the reach- n cient, contemporary, and future-the q uiry and the excitement, or c nnection of peoples, better than h is one!"

h e Pavilion's centerpiece is a r eathtaking sculpture, the Galactic r millary Sphere, designed by a team n der the direction of AMNH's own a vid Harvey, Vice President of x hibition. The sculpture is a 21st century reinterpretation of an ancient astronomical tool, a link between our scientific past and future.

Early armillaries, dating back to the second century AD, were observational tools that enabled astronomers to determine the position of a planet or a star at a given time. Later models more often served as teaching aids, demonstrating the apparent motion of celestial bodies.

In classic structure, early astronomers placed Earth at the center of the armillary, and depicted the rotation of the sun and other planets around it; later armillaries showed the rotation of Earth and other planets around the sun.

The Museum's armillary, made up of four rings of brushed aluminum, places the Milky Way galaxy at its center. The sculpture is positioned to demonstrate New York City's galactic address at the moment the Planetarium opened. The ring representing our galaxy is sectioned into octants, a symbolic guide for future space navigation.

Also on display will be the exhibition *Measuring Time, Exploring Space: Historical Instruments from the Hayden Planetarium Collection*, homage to the artistry and invention of early astronomical devices. Humans have studied the heavens for thousands of years, and over the ages have experimented with a fascinating array of tools to assist in their endeavors.

Since its opening in 1935, the Hayden Planetarium has been collecting astronomical instruments for use in interpreting the history of astronomy. These early scientific instruments reveal a unique marriage of art and science, and are remarkable for their exquisite workmanship and design. Selections from the Museum's Frank Astronomy Collection and the Bliss Astronomy Collection will be displayed together in this special exhibition.

The Judy and Josh Weston Pavilion is an exciting structural addition to the Museum, designed to capture the spirit of connection and discovery that is shared by the Westons themselves, and by the entire AMNH community. Begin your next Museum visit here, and see for yourself!

Tribute Evening to Anne Sidamon-Eristoff—December 18, 2000

Jill Bernard, Chairman Lewis W. Bernard, and President Ellen V. Futter.

Anne Sidamon-Eristoff and Lewis W. Bernard.

Anne Sidamon-Eristoff with her husband Constantine.

On December 18, 2000 the Museum hosted a wonderful black-tie dinner to honor Anne Sidamon-Eristoff, retiring Chairman of the Museum's Board of Trustees.

Mrs. Eristoff came to the Museum in the mid-1950s as a volunteer, working at the newly established Information Desk, and also joined the Women's Committee. She was elected to the Board of Trustees in 1967 and became Chairman in 1994. During her Chairmanship the Museum has witnessed spectacular accomplishments, including the opening of the newly renovated fourth floor dinosaur halls, the Hall of Biodiversity, and the North Side Project featuring the magnificent Rose Center for Earth and Space.

During the evening's program fellow Trustees, Museum staff, family, and friends offered heartfelt speeches and festive toasts to salute Mrs. Eristoff for her wisdom, generosity, and gracious leadership, and to express their profound gratitude and admiration. Mrs. Eristoff will remain an active member of the Board of Trustees and the Museum very much looks forward to working with her on our future endeavors.

Photographs by Roderick Mickens, AMNH.

Anne Sidamon-Eristoff and Peter F. Vallone, Speaker, The Council of the City of New York.

A three dimensional cake representing the Museum's 77th Street facade and measuring approximately 5' x 3' x16" was created for the occasion.

Museum Welcomes New Chairman of the Board of Trustees Lewis W. Bernard

Retired Chairman Anne Sidamon-Eristoff, Chairman Lewis W. Bernard, and President Ellen V. Futter

We are pleased to announce that at the December 6th meeting of the American Museum of Natural History Board of Trustees, Mr. Lewis W. Bernard was elected its new Chairman. Mr. Bernard was recommended with great enthusiasm by a group led by retiring Chairman, Anne Sidamon-Eristoff. A dedicated Trustee, Mr. Bernard has given generously of his time to the Museum, serving as a Vice-Chairman of the Board, Chairman of the Education Committee and of the Committee on Trustees; and he has been an active member of the Executive Committee, the Officers Committee, the Planning Committee, the Exhibition Policy Committee, and the Investment Committee. Mr. Bernard serves with Mrs. Eristoff as Co-Chairman of the Campaign for the Museum for the New Century. The campaign's success is due in no small measure to his farsighted and tireless work on behalf of the Museum.

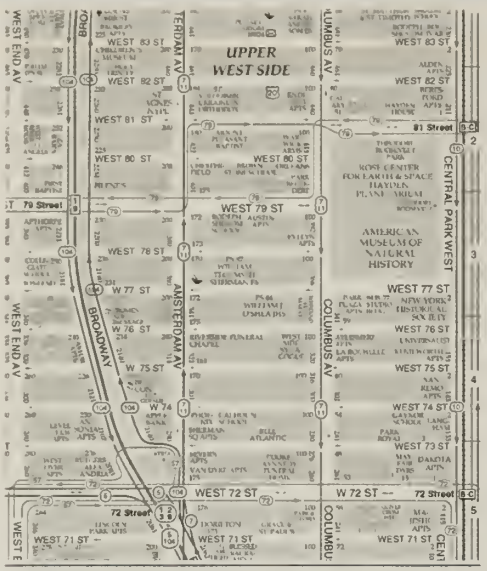
Mr. Bernard retired in 1991 from Morgan Stanley & Co., where he held a number of positions, including managing director and chief administrative and financial officer with responsibilities for strategic planning. He also was a director of Morgan Stanley Group, the public holding company. He is Founder and Chairman of Classroom, Inc., a not-for-profit corporation which creates interactive learning tools for students and provides professional development for teachers who use digital technology in the classroom. These tools provide students with "hands-on" experience, and are designed to develop critical thinking and collaborative learning skills. Mr. Bernard graduated Phi Beta Kappa with a B.A. from Princeton University in 1962 and attended the London School of Economics.

Among Mr. Bernard's other charitable commitments is the Central Park Conservancy, where he is a founder and former Vice Chairman. He also has served as a director of the Harvard Management Company, The Educational Broadcasting Co. (WNET) and Teachers College, Columbia University.

Mr. Bernard will bring to his tenure as Board Chairman a powerful vision for the future of science and education that resonates with the Museum's mission. We offer a warm welcome to the Museum's dynamic new Chairman, Lewis Bernard.

Photograph by Denis Finnin, AMNH.

members' programs



MEMBERS' LECTURE

Manhattan Block by Block: Adventures in Urban Cartography

Tuesday, March 27th
7:00 p.m.

In 1979, John Tauranac completed a groundbreaking work with which every New Yorker is now intimately familiar: the official subway map, which garnered awards from the U.S. Department of Transportation and the National Endowment for the Arts. Tauranac has since published dozens of transit and street maps. His latest project, *Manhattan Block by Block: A Street Atlas*, is the most ambitious to date.

Tauranac's desire to chart every feature of the cityscape in this latest work made him a true urban explorer. Declaring that "second-hand sources are useless, because New York changes constantly," he walked every block of Manhattan, from Battery Park to Spuyten Duyvil, before mapping it. This grand exercise in urban trailblazing took more than three years. In this lecture, Tauranac will discuss the planning, the processes, the false starts, breakthroughs and adventures associated with a great project in urban cartography.

John Tauranac is a designer, an architectural historian, and is the author of several highly acclaimed books on New York City's architecture and history, including *The Empire State Building: The Making of a Landmark*, and *New York From the Air*.

Kaufmann Theater
Cost: $10 Members, $12 non-members
Code: MM3-1

TOUR

The Art of the Diorama

Tuesday, March 13th
7:00 p.m.

The Museum is reknowned for its beautiful dioramas, depicting mounted wildlife specimens in wildlife settings. Join Steve Quinn of the Department of Exhibition for a tour of these unique works of art and science. During our stroll, we'll learn about the extraordinary team of curators and artists who create these famed dioramas, and about the materials and methods.

Steve Quinn was hired in 1974, through a New York State Council for the Arts grant designed to provide artists the opportunity to apprentice with the master diorama artists and learn their unique trade. He has been with the Museum ever since, and has worked on the restoration of the Museum's older dioramas, as well as the design of its newer ones.

Steve Quinn at work on the Archeopteryx mural in the Hall of Saurischian Dinosaurs.

Meets at the Museum's Security Entrance, 79th Street and Central Park West, 1st Floor
Cost: $25–Members only
Code: MM3-2

BEHIND THE SCENES TOUR

Behind the Scenes in the Department of Herpetology

Tuesday, March 6th
6:00, 6:30 and 7:00 p.m.

Venture behind closed doors, as scientists from the Department of Herpetology lead you on a tour through the Museum's unparalleled reptile and amphibian collections. Learn about the diversity of the collections from Curatorial Associate Linda Ford, whose cabinets hold the skeletal and alcoholic specimens collected over a century of expeditions. Curator Jay Cole will introduce his colony of live parthenogenetic lizards: an all female species that reproduce without the benefit of males. Experience the sound collections in the audio lab, as Senior Scientific Assistant David Dickey discusses the collecting and use of frog calls in herpetology.

This tour presents a unique opportunity to learn about the way Museum collections are used, and about the exciting research conducted by Museum herpetologists.

Meets at the Museum's Security Entrance, Central Park West at 79th Street, 1st floor

Cost: $25–Members only
Code: MM3-3

FEE HALL TOUR

Department of Ornithology

Friday, March 30th
6:5 p.m.

Spend an evening with our feathered friends, as we explore the Museum's Ornithology Halls. In just 90 minutes, guides Suzi Zetkus and Bill Lynchman will lead a world-wide expedition through the halls. Along the way, you'll meet birds of all kinds,and learn about their fascinating and sometimes wacky behavior. You'll also find out about Museum ornithologists and the revolutionary museum exhibition techniques that began in the Ornithology Halls. Plus, Zetkus and Lynchman will reveal the fascinating secret history of the Museum's peerless collections.

Cost: Free–Members only. You must register through Central Reservations.
Code: MM3-4

CHILDREN'S PROGRAMS

Sign Language Discovery

Sunday, March 11th
:00 p.m.

Calling all imaginative girls and boys from seven to twelve! Come and learn a totally cool way to talk with your hands and listen with your eyes: sign language. It's fun to show your thoughts and feelings with your face, hands and body and to be able do this beautiful talking with your friends at home, in the quietest library, or while swimming underwater!

Join Professor Gabriel Grayson, of New School University, and learn some neat signing stuff.

Don't forget to bring your imagination!

Linder Theater
Cost: $10 Members, $12 non-members
Code: MM3-5

My First Museum Diorama

Sunday, March 4
11:00 a.m.–12:00 p.m.

Taking inspiration from the Museum's world-reknowned dioramas, children can make their own dioramas to take home. They will color a prehistoric habitat backdrop for a diorama box, which they'll fill with prehistorica flora and fauna to create a complete habitat group.

Pamela Popeson, artist and fromer director of the Museum's Fossil Reproduction Department, leads this workshop, which is appropriate for children ages 5 to 8. (Diorama making for children 9 and up will be offered at a later date.)

Room 319
Cost: $20–Members Only
Code: MM3–6

"I love you" in sign language

PREVIOUSLY LISTED

The Chameleon at the Center of the Cosmos:

Why "Nothing" Is Too Wonderful To be True

Wednesday, February 28
7:00 p.m.

Join *L.A. Times* science columnist and best selling author K.C. Cole to learn how what we think of as "nothing" can give birth to entire universes, and perhaps did give birth to our own.

Kaufmann Theater
Cost: $10 Members, $12 non-members
Code:MM2–1

Winter Wonderland Walk: Northern Central Park

Saturday, February 10
10:00 a.m. and 12:00 noon

Join Sidney Horenstein, Coordinator of the Museum's Environmental Programs, to explore this area's wild, rocky, and heavily wooded terrain.

Cost: $18 Members, $20 non-members
Code: MM2–2A (10:00 a.m.)
Code:MM2-2B (12:00 noon)

Plains Indian Parfleche

Saturday, February 3, 1:00 and 2:30 p.m.
Saturday, February 10, 1:00 p.m.

Parents and children, learn together about different kinds of Native American crafts, then create your own Native American carrying case. For children ages 5 to 8 and their parents.

Rose Center Classroom
Cost: $22–Members only, for 1 child w/parent
Code: MM2–6A (February 3, 1:00 p.m.)
Code: MM2–6B (February 3, 2:20 p.m.)
Code: MM2-6C (February 10, 1:00 p.m.)

To register for Members Programs, please call Central Reservations at 212-769-5200.

february 2001

Current Exhibits

The Butterfly Conservatory: Tropical Butterflies Alive in Winter
October 7, 2000—May 28, 2001

Iceland, Land of the Vikings
Photography exhibition, Akeley Corridor Gallery
October 21, 2000—April 8, 2001

Monday	Tuesday	Wednesday	Thursday
			1
5 Behind the Scenes at the Hayden Planetarium Members Tour *6:30 p.m.* Rose Center Tour Spotlight Tour *12:45 p.m. & 2:45 p.m.*	**6** Rose Center Tour Spotlight Tour *2:45 p.m.*	**7** Walk on the Wild Side 7:00 a.m. *Each* Wednesday in February, for Contributor and higher level Members	**8** Earthwatch at the Museum: The Ecology of Zebra Sociality and Conservation Education Lecture *7:00–8:30 p.m.*
12 Rose Center Tour Spotlight Tour *12:45 p.m. & 2:45 p.m.*	**13** Isaac Asimov Memorial Panel Debate: *The Theory of Everything* *7:30 p.m.* Rose Center Tour Spotlight Tour *12:45 p.m.*	**14**	**15**
19	**20** Rose Center Tour Spotlight Tour *2:45 p.m.*	**21**	**22**
26 Rose Center Tour Spotlight Tour *12:45 p.m. & 2:45 p.m.*	**27** Rose Center Tour Spotlight Tour *12:45 p.m.*	**28** The Chameleon at the Center of the Cosmos Members Lecture *7:00 p.m.*	

Friday	Saturday	Sunday
Starry Nights: Fridays Under the Sphere Jazz Performance *6:00–8:00 p.m.*	**3** **Plains Indian Parfleche** Members Children's Workshop *1:00 p.m. and 2:30 p.m.* **African Diaspora Celebration: Fusions, Faces, and Footprints** Multicultural Programs *1:00 p.m. to 5:00 p.m.*	**4** **African Diaspora Celebration: Fusions, Faces, and Footprints** Multicultural Programs *1:00 p.m. to 5:00 p.m.*
Starry Nights: Fridays Under the Sphere Jazz Performance *6:00–8:00 p.m.*	**10** **Winter Wonderland Walk: Northern Central Park** Members Walking Tour *10:00 a.m. & 12:00 noon* **African Diaspora Celebration: Fusions, Faces, and Footprints** Multicultural Programs *1:00 p.m. to 5:00 p.m.*	**11** **African Diaspora Celebration: Fusions, Faces, and Footprints** Multicultural Programs *1:00 p.m. to 5:00 p.m.* **The Evolution of Dogs** Spotlight Tour *2:45 p.m.*
Department of Mammology Members Tour *6:15 p.m.* **Starry Nights: Fridays Under the Sphere** Jazz Performance *6:00–8:00 p.m.*	**17** **African Diaspora Celebration: Fusions, Faces, and Footprints** Multicultural Programs *1:00 p.m. to 5:00 p.m.* **The "Juicy" Earth** Education Lecture *1:30–4:00 p.m.*	**18** **African Diaspora Celebration: Fusions, Faces, and Footprints** Multicultural Programs *1:00 p.m. to 5:00 p.m.*
All That Glitters: The Romance of Gold Members Tour *6:15 p.m.* **Starry Nights: Fridays Under the Sphere** Jazz Performance *6:00–8:00 p.m.*	**24** **Identification Day** Education Program *1:00 p.m.–4:30 p.m.* **Sharks!** Spotlight Tour *11:45 a.m.* **Natural History with Dr. Maturin** Spotlight Tour *1:45 p.m.*	**25**

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
Central Reservations	(212) 769-5200		

Website: http://www.amnh.org

program listings

DEPARTMENT OF EDUCATION LISTINGS

Earthwatch at the Museum

Five lectures, starting Thursday, February 8
7:00–8:30 p.m., Code: ED21201L
$40 for series ($36 Museum & Earthwatch Members, students, senior citizens)
$12 each ($10)

This series is co-sponsored by Earthwatch Institute.
For tickets call 212-769-5200.

February 8
The Ecology of Zebra Sociality and Conservation: Different Stripes for Different Types

March 1
Impact of Global Warming on Polar Bears and Tundra Ecosystems

April 12
Redwood Logs, Rubber Ducks, and Loggerheads: What can sea turtles teach us about the ocean?

May 10
Uncovering the Origins of Dinosaurs in Argentina's Ischigualasto Valley

June 7
Transition from Sail to Steam: Archaeology and the Social History of Ships

The "Juicy" Earth: The Role of Water in the Formation of Continents and the Dynamics of Plate Tectonics

Saturday, February 17
1:30–4:00 p.m., Code: ED20231L
$15 ($13.50 Members, students, senior citizens)
Rosamond Kinzler, senior scientist in the Museum's National Center for Science Literacy, Education, and Technology, investigates water deep below the Earth's surface. A short break and light snack are provided for participants.

Biodiversity and Seaside Plants

Four Mondays, March 5–26
2:30–4:00 p.m. Code: ED21202L or
Four Thursdays, March 8–29
7:00–8:30 p.m. Code: ED21203L
$30 for series ($27.00 Members, students, senior citizens); $12 each ($10)

This slide-illustrated series by William Schiller, lecturer in botany at the Museum, focuses on seaweeds and flowering plants of our coastal dunes and wetlands.

Geology of the Revolutionary War in Metropolitan New York

Three Thursdays, March 8–22
7:00–8:30 p.m.
Code: ED21204L
$25 for series ($22.50 Members, students, senior citizens); $12 each ($10)
This lecture series on military geology, by Sidney S. Horenstein, a geologist and coordinator of environmental public programs at the Museum, explains how geology dictated the battles and the troop movements in the metropolitan region during the Revolution.

History and Life: An AARP Lecture Series

Three lectures, starting Wednesday, March 7
2:00–3:30 p.m.
Code: ED21205L
$25 for series ($20 Museum and AARP Members); $12 each ($8)
This series is co-sponsored by the American Association of Retired Persons (AARP).
March 7 *Nonzero: The Logic of Human Destiny*
March 14 The History of Time
March 21 Ecology and History on the Hudson River

FREE PROGRAMS

Identification Day

Saturday, February 24
1:00–4:30 p.m.
Birds of the World Hall, second floor

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. For additional information, call 212-769-5176.

AMNH Special Collections

tion of Battery Park during the Revolution

HE SCIENCE OF "Land of the ammoth"

ednesday, March 7
00–9:00 p.m.
AX Theater
is program is free to the public.
servations are required and seating on first come-first served basis. For kets call 212-769-5200.

n us for a brief preview of *Land of the ammoth*,Discovery Channel's sequel to st year's groundbreaking documentary *ising the Mammoth*. Following the eview there will be a panel discussion d question/answer session, conducted an international panel of scientists om the Mammuthus expedition and e Museum.

ELD TRIPS, WALKING TOURS, ND WORKSHOPS

l field trips and walking tours take ace rain or shine. Registrants will be nt information on all starting points. o discounts are offered for limited-rollment programs. For further formation and to register, ll 212-769-5200.

nimal Drawing

ght Thursdays
arch 8–April 26
00–9:00 p.m.
50 (materials not included)
mited to 25 persons

in Museum artist Stephen C. Quinn to aw from the Musuem's famed oramas, as well as from mounted eletons. Quinn, senior assistant anager, Department of Exhibition, iscusses drawing technique, animal natomy, and the role of the artist at the Auseum.

Reading and Interpreting Maps

Two Wednesdays , March 14 and 21
7:00–8:30 p.m. Code: ED21303X
$20
Limited to 25 persons
In this workshop, presented by Sidney S. Horenstein, a geologist and coordinator of environmental public programs at the Museum, participants will study a variety of maps: topographic, geologic, botanic, and military.

Spring Bird Walks in Central Park

Nine Tuesdays, March 27–May 22
7:00–9:00 a.m. Code: ED21304X, or
Nine Wednesdays, March 28–May 23
7:00–9:00 a.m. Code: ED21305X or
Nine Thursdays, March 29–May 24
9:00–11:00 a.m. Code: ED21306X
$60

Observe the spring migration of birds in Central Park with naturalists Stephen C. Quinn (Tuesdays), Joseph DiCostanzo (Wednesdays), and Harold Feinberg (Thursdays). Learn how to use field marks, habitat, behavior, and song as aids in bird identification.
Limited to 25 persons per series.
Please note: Walks start across from the Museum on the northeast corner of Central Park West and 77th Street.

The Department of Education Presents...

African Diaspora Celebration: Fusions, Faces, and Footprints

Saturdays & Sundays,
February 3 & 4, 10 & 11, and 17 & 18

Weekend Family Programs
Kaufmann & Linder Theatres, first floor
Leonhardt People Center, second floor
1:00 p.m. to 5:00 p.m.

Observe Black History Month by attending the African Diaspora Celebration.

February's **Fusions, Faces, and Footprints** program offers a cross-cultural examination of jazz, an exploration or race and identity, a jubilant celebration of Black dance, and a special photography display: *African-Native Americans*.

The programs include: lectures, demonstrations, panel discussions, film screenings, live performances, and question and answer sessions with participating artists, educators and scholars.

All Weekend Family Programs are free with suggested Museum admission. Seating is limited and is available on a first-come, first-served basis.

For further information
call (212) 769-5315
or visit www.amnh.org/education.
Click on Multicultural Programs, then Leonhardt People Center Programs.

The American Museum of Natural History wishes to thank the May and Samuel Rudin Family Foundation, Inc., the Tolan Family, and the family of Frederick H. Leonhardt for their support of these programs.

program listings

Dr. Isaac Asimov and
Dr. Janet Jeppson Asimov

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.

Evolution of Dogs

February 10; 11:45 a.m.
February 11; 2:45 p.m.
"Bone" up on the prehistory of our best friends.

Rose Center

February 5, 12, 26; 2:45 p.m.
February 5, 12, 26; 12:45 p.m.
February 6, 20; 2:45 p.m.
February 13, 27; 12:45 p.m.
An introduction to the Rose Center.

Sharks!

February 24; 11:45 a.m.

Natural History with Dr. Maturin

February 24; 1:45 p.m.
Sea stories of Patrick O'Brien.

Foreign Language Tours

Deutsche Fuhrung
February 6, 13, 20, 27; 11:00 a.m.
Museum Highlights tour in German.

Visita del Mueso
February 1, 8, 15, 22; 11:00 a.m.
Museum Highlights tour in Italian.

Fossil Explainers

Monday–Thursday, 1:00-5:00 p.m.;
Friday, 1:00- 8:00 p.m.;
Saturday, 10:00 a.m.– 8:00 p.m.;
Sunday, 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–Thursday, 1:00–5:00 p.m.
Friday, 1:00-8:00 p.m.
Saturday, 10:00 a.m.-7:00 p.m.
Sunday, 10:00 a.m.-5:00 p.m.
Earth and Space Explainers (identified by a purple button) are trained to answer questions about astronomy and geology.

THE FIRST ANNUAL ISAAC ASIMOV MEMORIAL PANEL DEBATE

The late Dr. Isaac Asimov, one of the most prolific and influential authors of our time, was a great friend and supporter of the American Museum of Natural History. In his memory, the Hayden Planetarium is honored to host the first annual Isaac Asimov Memorial Panel Debate. This event inaugurates a lecture series, generously endowed by Dr. Janet Jeppson Asimov and many other relatives, friends and admirers of Isaac Asimov and his work. The Isaac Asimov Memorial Panel Debate will bring the finest minds in the world to the Museum each year, to discuss some of the most important and interesting questions at the edge of scientific discovery. Proceeds from the ticket sales of the Isaac Asimov Panel Debate will benefit the programs of the Hayden Planetarium.

THE THEORY OF EVERYTHING

Tuesday, February 13 at 7:30 p.m.
IMAX Theater
Code: HP400L
$10 ($8 Members, students, seniors)
Advance ticket purchase suggested. Please call Central Reservations at 212-769-5200 for tickets.

Can the entire Universe be explained with a single, unifying theory? This is perhaps the most fundamental question in all of science, and it may also be the most controversial. Albert Einstein was one of the first people to envision a unified field theory that might describe the behavior of all matter and energy in the cosmos with a single stroke of the pen; however, a definitive solution has eluded physicists to this day. As we enter the twenty-first century, the leading candidate for a "theory of everything" appears to be "string theory," which considers every particle in the Universe as a multi-dimensional entity - a "string" - that manifests itself in our Universe differently depending on how it twists and vibrates.

Five of the world's leading voices in this great scientific debate will present and discuss this grand issue:

Dr. Brian Greene - professor of physics and mathematics at Columbia University, string theorist, and author of *The Elegant Universe*.

Dr. Lisa Randall - professor of physics at MIT, theoretical particle physicist, and expert on the fundamental theory of matter.

Dr. S. James Gates - professor of physics at the University of Maryland, string theorist, and author of *Superspace, or 1001 Lessons In Supersymmetry*.

Dr. Lawrence Krauss - professor of physics at Case Western Reserve University, theoretical physicist and author of numerous books on fundamental physics including *Quintessence: The Mystery of the Missing Mass in the Universe*.

Dr. Sheldon Glashow - professor emeritus of physics at Harvard University and professor of physics at Boston University, particle physicist, 1979 Nobel Laureate in Physics, and author of *From Alchemy to Quarks: The Study of Science as a Liberal Art*.

Shackleton's Antarctic Adventure

A follow up to the Museum's celebrated exhibition, *The Endurance: Shackleton's Legedary Antarctic Expedition*, ***Shackleton's Antarctic Adventure*** brings the extraordinary saga of Sir Ernest Shackleton and his crew back to AMNH.

In December 1914, Ernest Shackleton and a 27 man crew set sail aboard the Endurance, on a mission to cross the Antarctic continent. Soon after departing South Georgia Island, in the subantarctic, the *Endurance* encountered the first of their many struggles. Shackleton and his crew survived for 15 months stranded in a sea of ice, before Shackleton and five men set out for help, leaving 22 men camped on Elephant Island, awaiting their return.

A harrowing rescue mission ensued: Shackleton and his men travelled 800 miles by sea and 30 miles over land in search of assistance. On August 16, 1916. Shackleton returned to Elephant Island and succeeded in rescuing his stranded crew. Not a life was lost throughout the almost 2 year ordeal

The filmmakers went to extraordinary lengths to bring Shackleton's ill-fated expedition to life, shooting dramatic recreations in the very locations where these epic events took place: South Georgia Island, Elephant Island, the Southern Ocean, and the Weddell Sea.

The haunting photographs and 35millimeter film taken by *Edurance* crewman Frank Hurley throughout the ordeal served as both guidance and inspiration for the filmmakers; Museum Members will have a chance to see Hurley's powerful images again, this time on the big screen as part of the film.

This giant screen format is expertly suited to capture these larger than life events . " Viewers will feel as if they have been transported back in time to experience what is considered to be 'the greatest survival story of all time," says Susanne Simpson, executive producer for NOVA Large Format Films.

Come experience the unbelievable journey of ***Shackleton's Antarctic Adventure***.

This film is a co-production of White Mountain Films and NOVA/WGBH Boston, and is presented by Morgan Stanley Dean Witter.

Photograph of Sir Ernest Shackleton by Frank Hurley ©Scott Polar Research Institute. Photograph of The Endurance by Frank Hurley © Royal Geographical Society.

museum notes

FEBRUARY Members Special

The Museum Food Court invites Members of the Museum to come on in out of the cold. Sit down and relax before you continue on your tour of the Museum.
This month, Restaurant Associates offers one complimentary pastry ($1.25 to $1.95 value) with the purchase of another one of equal or greater value.

Pastries include Croissants, Danishes and Donuts.

As always, Museum Members receive a 15% discount at the Museum Food Court, Café on 4 and Café 77.
To obtain a discount simply, present your Membership card at the start of your transaction.

Friday Jazz

Starry Nights: Fridays Under the Sphere, a weekly series of live jazz at the Rose Center for Earth and Space, continues in February with performances by the George Coleman Trio.

The set begins every Friday at 6 p.m. Cash bar and tapas are available.

Call 212-769-5100 for more information.

IMAX Schedule

Ocean Oasis

Sunday–Thursday:
10:30 a.m., 12:20 p.m., 2:10 p.m., 4:00 p.m.
Friday–Saturday:
10:30 a.m., 12:20 p.m., 2:10 p.m., 4:00 p.m., 5:50 p.m., 7:40 p.m.

Dolphins
(Through February 9th)

Sunday–Thursday:
11:15 a.m., 1:00 p.m., 2:45 p.m., 4:30 p.m.
Friday–Saturday:
11:15 a.m., 1:00 p.m., 2:45 p.m. 4:30 p.m., 6:15 p.m.

Shackleton's Antarctic Adventure
(Begins February 10th)

Sunday–Thursday:
11:25 a.m., 1:15 p.m., 3:05 p.m., 4:55 p.m.
Friday–Saturday:
11:25 a.m., 1:15 p.m., 3:05 p.m., 4:55 p.m., 6:45 p.m.

Schedule and prices are subject to change without notice.
Please contact 212–769–5200 for up-to-date information.

Birthday Parties at the Museum

Linda Kaye's *Birthdaybakers, Partymakers* bring their winning combination of education and entertainment to AMNH with five exciting ways to transform your child's birthday into an unforgettable event. Choose from Cosmic Blast-Off, Safari Adventure, Global Mysteries, 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.

A gifted idea for your Valentine.

Wrap your sweetheart in a scarf full of flowers and butterflies. Features Edward Donovan's butterfly illustrations and B. Maund's botanical illustrations, both part of the Museum's Rare Book Collection 36", 100% silk from ECHO, black, blue or pink ($54).

hoose
om an assortment
unique beaded
oral jewelry,
andmade
the Huichol
eople of Mexico. One of
e oldest traditional
ibes in the western
emisphere. Earrings
ith pearls ($40),
ng with velvet
and ($18), necklace with pearls and
t crystals ($30), or bracelet ($60).

AMERICAN MUSEUM & NATURAL HISTORY

Central Park West at 79th Street
To order: (212) 769-5150 or
shop online: www.amnh.org

DISCOVERY TOURS

2001 PROGRAMS

Exploring the World with Museum Scientists and Distinguished Lecturers as They Discover New Insights into the Nature of Life on Earth.

January: The Galápagos Islands Antarctica & The Falkland Islands Cuba The Rivers of West Africa Heaven & Earth: Around the World by Private Jet Indochina Unveiled Bhutan & Northern India **February:** The Rivers of West Africa Mexico: Exquisite Haciendas Indochina Unveiled Big Cats of the Serengeti Inside Saudi Arabia The Amazon **March:** The Lost Islands of Tahiti Cuba Belize & Tikal The Amazon Indian OceanOdyssey Exploring Southeast Asia **April:** Egypt and the Nile Sicily **May:** Springtime in Japan Classical Greece & The Parthenon Sculptures Historic Cities of the Sea Africa's Wilderness **June:** Madagascar: Total Solar Eclipse Fire & Ice: Kamchatka Peninsula and the Aleutian Chain Fire & Ice: Kuril Islands and Kamchatka Peninsula National Parks of the West: A Private Jet Expedition China for Families North America's Great Lakes The Galápagos Islands: A Family Adventure **July:** Family Dinosaur Discovery Inside Iceland Ireland: A Family Program Voyage to the North Pole Gods and Heroes: A Family Voyage **August:** Arctic Odyssey Exploring Atlantic Canada Tuscany: A Family Adventure Family Alaska Expedition Undiscovered Greece Family Dinosaur Discovery The Outer Islands of Britain & Ireland China & The Yangtze River The Elbe River: From Prague to Berlin **September:** Source of the Nile Ancient Coast of Turkey The Ancient Silk Road **October:** Himalayan Kingdoms Exploring Egypt & Jordan by Private Plane Ethiopia Papua New Guinea Bhutan & Northern India Iran The History of Food and Wine by Private Jet Great Temples of Southeast Asia Sailing the Tyrrhenian Sea: Aboard the Sea Cloud Lost Cities by Private Jet **November:** Belize & Tikal Patagonia Treasures of the Arabian Gulf Country Fairs of India **December:** Nepal: A Family Adventure

TO RECEIVE OUR 2001 PROGRAM GUIDE INCLUDING OUR COMPLETE FAMILY CATALOG
CALL: 800-462-8687 OR 212-769-5700 FAX: 212-769-5755 OR EMAIL: DISCOVERY@AMNH.ORG

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.

Membership Department,
Central Park West @ 79th Street
New York, New York 10024-5192
www.amnh.org

Central Reservation Coupc

Program Name/Date # Membe

Rotunda.
American Museum of Natural History
Received on: 01-31-01

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.

Begin your next AMNH visit at the Judy and Josh Weston Pavilion, at Columbus Avenue and 79th Street!

rotunda

ol. 26 No. 3 March 2001

Members' Newsletter

when galaxies collide

H
U 2
S
26
3
2001

American Museum of Natural History

when galaxies collide

a research update from the Department of Astrophysics

We live in the Milky Way Galaxy, a vast collection of gas, dust, and over a hundred billion stars. If we could fly out of the Milky Way and look back from a distant vantage point, we'd see that our home is a beautiful spiral galaxy, like countless others in the cosmos. Within our galactic neighborhood, we'd see other spiral galaxies nearby too, as well as elliptical galaxies and smaller, irregularly shaped galaxies. But a select group–perhaps one in a hundred–look downright peculiar, sporting rings, loops, and long tails of stars trailing away in odd directions. These are usually the result of galaxy collisions and interactions–some of the most awesome and astonishing events in the cosmos.

Who can resist slowing down to take a look at the grandest traffic accidents in the universe?

Not long ago, astronomers regarded galaxy collisions as rare occurrences of little consequence. We now know, however, that just about every galaxy in the universe has probably experienced such a close encounter. The details of these collisions, then, reveal vital secrets of galaxy birth, life, aging and death–and the evolution of the universe itself. The lure of these secrets draws me to study colliding and merging galaxies. I must admit, though, that the curiosity of a rubbernecker plays a part too; who can resist slowing down to take a look at the grandest traffic accidents in the universe?

Just as an experienced forensic investigator can reconstruct a traffic accident by studying the wrecked cars at the scene, an astronomer can deduce how galaxies collided by observing the remnants of the interaction. The distances and scales of a galaxy interaction, however, complicate matters. Although the galaxies involved often race toward each other at a million miles per hour, galaxies are many *quadrillions* of miles across; so each collision takes *eons* to unfold. A fast, glancing blow usually ends within a couple hundred million years (about the length of the Age of Dinosaurs here on Earth); a slower interaction, on the other hand, often locks the participants into a mutual gravitational embrace–and over the course of a billion years or more, the two galaxies merge into one.

This process of building a galaxy by acquiring others creates giant "central dominant" galaxies, bloated behemoths hundreds of times more massive than our own galaxy. But mounting evidence from observations of young, faraway galaxies suggests that even ordinary citizens of the galaxy community have grown to adulthood through a series of accreting collisions. (Even now, our Milky Way is consuming the Sagittarius Dwarf Galaxy; as it draws ever closer, the Sagittarius Dwarf is unraveling into pasta-like strands pulled apart by the Milky Way's gravity field.) Further support of this picture comes from theoretical studies using supercomputers as virtual time machines, simulating the universe as it was billions of years ago. Computations testing facets of this scenario were recently published, for example, by AMNH astrophysicist Frank Summers and his collaborators.

Galaxy collisions create new, bigger galaxies–and they also make new stars. The billions of stars in each colliding galaxy pass by each other without touching; but amongst the stars are vast clouds of gas and dust, which *do* crash together. The resulting friction and turbulence cause pockets of the gas to collapse, heat up, and ignite new stars at dozens or hundreds of times the usual rate. Such "starbursts" can completely transform a staid galaxy into a seething cauldron, ablaze with dazzling young stars, titanic supernova explosions, and even a super-energetic quasar–a black-hole powered gravitational engine–at its nucleus. Total, all-consuming starbursts are most common in dwarf spiral and irregular galaxies–an area of research interest to Neil Tyson, AMNH astrophysicist and Frederick P. Rose, Director of the Hayden Planetarium.

CITO Blanco telescope, silhouted against the Milky Way in Cerro Tololo, Chile. *Roger Smith (AURA/NOAO/NSF)*

The Whirlpool Nebula M51: a pair of interacting galaxies.
Image caurtesy AURA/NOAO/NSF

ventually, the furious activity finally ubsides, leaving a new generation of tars to shine on in the transformed, ost-collisional galaxy. The details of he final transition from starburst to uiescence, however, are still murky; ow long will the galaxy continue to eel the effects of collision-induced renzy, and what will be the galaxy's inal configuration? One particular galaxy with the cryptic nomenclature G515" provides at least one answer. My observations and analyses of G515 how that the visible light from this bject, just over a billion light-years away from Earth, comes almost purely rom stars between 900 and 1,000 million years of age–a sure giveaway hat a titanic starburst occurred then. Furthermore, this "post-starburst" galaxy shows all the earmarks of a mature, fully-formed elliptical galaxy–but faint, residual tidal tails and structures point to a violent collision exactly coeval with the fossilized starburst. G515 is a smoking gun–clear evidence of a long-held idea that the most powerful galaxy collisions can, after triggering massive starburst activity, create perfectly ordinary elliptical galaxies.

Every solved problem raises fresh mysteries. Recent studies have hinted that the galaxy collision rate was much higher billions of years ago than it is today. If so, why do large spiral galaxies still far outnumber large ellipticals? Closer to home, research suggests that our Sun may have been born during a starburst episode in the Milky Way, nearly five billion years ago; did a galaxy collision lead to humanity's emergence? Looking ahead, the Milky Way seems to be heading toward the Andromeda Galaxy at half a million miles per hour; are we destined to get up close and personal with our neighbor, five billion years from now? To me, questions like these make astronomy interesting and challenging–and fun.

–Charles Liu, AMNH astrophysicist

COVER IMAGE: A striking image of two galaxies colliding in NGC6745 photographed by NASA and the Heritage Hubble Team (STScI/AURA). The image has been described as a bird's head leaning over to snatch up its prey. The "bird's head" is a large spiral galaxy, and its "prey" is a smaller passing galaxy. For more information and images, visit www.stsci.edu.

rotunda

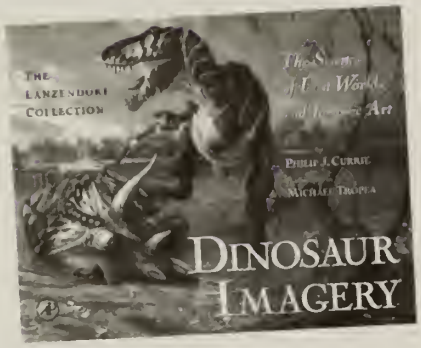
ISSN 0194-6110
Vol. 26, No. 3, March 2001

Mark Shoffner, *Editor*
Rosemary Caulk, *Director of Membership*
Lynn DeBow, *Vice President for Development and Membership*
Ellen V. Futter, *President*
Lewis W. Bernard, *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*.

©2001 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.

members' programs



LECTURES

Dinosaur Imagery: The Science of Lost Worlds and Jurassic Art

Tuesday, April 3
7:00 p.m.

The opportunity to show people a world that once existed, but was never seen by human eyes has been an irresistible attraction for generations of dinosaur artists.

Join John Lanzendorf, owner of the world's largest collection of dinosaur paintings and sculpture, for an exploration into the lost worlds of Jurassic art. Lanzendorf will use images from his book, *Dinosaur Imagery: The Science of Lost Worlds and Jurassic Art*, and will draw on the commentary provided by paleontologists including Mark Norrell and Phil Currie.

Kaufmann Theater
Cost: $10 Members, $12 non-members
Code: MM4-1

Putting Species Back into Human Evolution: Why Should Our Evolution Be Different from Other Animals?

Thursday, April 19
7:00 p.m.

The study of human evolution has had a history that in no way resembles the study of the evolution of any other group. Thanks in large part to Thomas Huxley, Ernst Mayr and Theodosius Dobzhansky, human evolution has been viewed as primarily a linear transformation of one highly variable species into another highly variable species.

Recently, however, there have been a few challenges to this interpretation. Jeffrey H. Schwartz, professor of Physical Anthropology at the University of Pittsburgh and research associate in the Museum's Department of Anthropology, will highlight some of the discoveries made with his colleague, Ian Tattersall, curator of Physical Anthropology at the Museum. Their collaboration over the past eight years, culminating in the book, *Extinct Humans*, is essentially the first study of the entire human fossil record.

Jeffrey H. Schwartz

Using slides of specimens that even most of their colleagues have never seen, Schwartz will discuss the discoveries that are already causing major waves among paleo-anthropologists.

Kaufmann Theater
Cost: $10 Members, $12 non-members
Code: MM4-2

WORKSHOP

Looking at Minerals

Wednesday, April 11
6:15 p.m.

One of the great delights of the natural world is the beauty of our earth's gems and minerals. There is no better place to view their variety than in the Musuem's Hall of Gems and Minerals. Join Sidney Horenstein, coordinator of the Museum's Environmental Programs, for an in-depth look at the science of minerals. We will learn how minerals are identified and classified and discuss the clues they offer about the earth's development and history.

Hall of Gems and Minerals
Cost: $25
Code: MM4-3

FREE HALL TOUR

Division of Earth and Planetary Sciences

Saturday, April 28
6:15 p.m.

Explore our world and other worlds as we focus on earth and space. Museum docents Suzi Zetkus and Bill Hinchman will guide us through the Museum's Hall of Planet Earth, the Rose Center, and the Hall of Gems and Minerals. We will investigate how planets are formed, the forces that mold them, and learn about the scientists who study them.

Meets in the Portrait Room
Cost: Free–Members Only
Advance registration required
Code: MM4-4

Halite. AMNH archive

MILY AND CHILDREN'S ROGRAMS

no Dioramas for Ages 8 and Up

turday, April 28
o–3:30 p.m.

e American Museum of Natural story was a pioneer in the use of mplete habitat dioramas in museum hibitions. Drawing inspiration from the useum's world-renowned dioramas, ildren will create their own dioramas take home. They will learn about the ra and fauna of the dinosaur age, and ll model accurate specimens to compse a complete habitat group.

mela Popeson, artist and former rector of the Museum's Fossil production Department, leads the orkshop, which is appropriate for ildren ages 8 and up.

se Center Classroom
st: $25, Code: MM4-5

wls!

nday, April 29
o p.m.

hagine a predator able to glide silently rough the night air. Imagine a hunter ith binocular vision and hearing so cute that it can locate its prey by sound one. This is the owl: a bird that has ng exerted a fascination over the uman imagination.

hildren ages 8 and up and their families e invited to take an in-depth look at e lives of these fascinating and often isunderstood nocturnal birds of prey. len Goldberg of New Jersey's Raptor rust will introduce many of the owl pecies native to this area. Learn about wl habitats, and meet a live owl!

inder Theater
ost: $10, Code: MM4-6

PREVIOUSLY LISTED

Sign Language Discovery

Sunday, March 11
1:00 p.m.

Calling all imaginative girls and boys ages seven to twelve! Come and learn a really cool way to talk with your hands and listen with your eyes: sign language. Join Professor Gabriel Grayson, of New School University, and learn some neat signing stuff. Don't forget to bring your imagination!

Linder Theater
Cost: $10 Members, $12 non-members
Code: MM3-5

The Art of the Diorama

Wednesday, March 14
7:00 p.m.

Join Museum artist Steve Quinn to learn about the extraordinary team of curators and artists who create the Museum's famed dioramas, and the techniques they use in their craft.

Due to popular demand, Steve Quinn is adding this second section of a previously listed program.

Meets at the Museum's Security Entrance, 79th Street and Central Park West, 1st Floor
Cost: $25–Members only
Code: MM3-2B

Manhattan Block by Block: Adventures in Urban Cartography

Tuesday, March 27
7:00 p.m.

John Tauranac, author of *The Empire State Building: The Making of a Landmark*, and *New York From the Air*, will discuss the planning, the processes, the false starts, breakthroughs and adventures associated with a great project in urban cartography.

Kaufmann Theater
Cost: $10 Members, $12 non-members
Code: MM3-1

The Hall of Planet Earth.

program listings

DEPARTMENT OF EDUCATION PRESENTS...

Earthwatch at the Museum

Four lectures, starting Thursday, March 1
7:00–8:30 p.m.
Code: ED21201L
$12 per lecture ($10 Museum & Earthwatch Members, students, senior citizens)

This series is co-sponsored by Earthwatch Institute.
For tickets call (212) 769-5200.

March 1
Impact of Global Warming on Polar Bears and Tundra Ecosystems

April 12
Redwood Logs, Rubber Ducks, and Loggerheads: What can sea turtles teach us about the ocean?

May 10
Uncovering the Origins of Dinosaurs in Argentina's Ischigualasto Valley

June 7
Transition from Sail to Steam: Archaeology and the Social History of Ships

Biodiversity and Seaside Plants

Four Mondays, March 5–26
2:30–4:00 p.m.
Code: ED21202L–or

Four Thursdays, March 8–29
7:00–8:30 p.m.
Code: ED21203L
$30 for series ($27.00 Members, students, senior citizens); $12 each ($10)

This slide-illustrated series by William Schiller, lecturer in botany at the Museum, focuses on seaweeds and flowering plants of our coastal dunes and wetlands.

History and Life: An AARP Lecture Series

Three Wednesdays, March 7–21
2:00–3:30 p.m.
Code: ED21205L
$25 for series ($20 Museum and AARP Members); $12 each ($8)

This series is co-sponsored by the American Association of Retired Persons (AARP).

March 7 ***Nonzero: The Logic of Human Destiny***

March 14 The History of Time

March 21 Ecology and History on the Hudson River

The Science of "Land of the Mammoth"

Wednesday, March 7
7:00–9:00 p.m.
IMAX Theater

This program is free to the public. Reservations are required and seating is on a first come-first served basis. For tickets call (212) 769-5200.

Join us for a brief preview of *Land of the Mammoth*, Discovery Channel's sequel to last year's groundbreaking documentary *Raising the Mammoth*. Following the preview there will be a panel discussion and question/answer session, conducted by an international panel of scientists from the Mammuthus expedition and the Museum.

The Little Ice Age: How Climate Made History 1300-1850

Thursday, March 8
7:00–8:30 pm
Code: ED21212L
$12 ($10 Members, students, senior citizens)

Recent developments in climatology have confirmed a long-standing suspicion: that the world endured a 500-year cold snap–The Little Ice Age–that lasted roughly from A.D. 1300 until 1850. Brian Fagan, a leading writer on archaeology, tells the story of the turbulent, unpredictable and often very cold years of modern European history, how climate altered historical events, and what they mean in the context of today's global warming.

Geology of the Revolutionary War in Metropolitan New York

Three Thursdays, March 8–22
7:00–8:30 p.m.
Code: ED21204L
$25 for series ($22.50 Members, students, senior citizens); $12 each ($10)

This lecture series on military geology, by Sidney S. Horenstein, a geologist and coordinator of environmental public programs at the Museum, explains how geology dictated the battles and the troop movements in the metropolitan region during the Revolution.

Samarqand, a trading center along the Silk Road. AMNH archives.

ıimal Drawing

ıht Thursdays, March 8–April 26
ɔ–9:00 p.m.
ʿo (materials not included)
ıited to 25 people

ɹn Museum artist Stephen C. Quinn ɹd draw from the Musuem's famed ɔramas, as well as from mounted ɛletons. Quinn, Department of ɪhibition, will discuss drawing ɪchnique, animal anatomy, and the ɪle of the artist at the Museum.

ɛading and Interpreting ıaps

vo Wednesdays, March 14 and 21
ɔo–8:30 p.m.
ɔde: ED21303X
ɔo
ɔmited to 25 people

ɪ this workshop, presented by dney S. Horenstein, a geologist and ɔordinator of environmental public ɪograms at the Museum, participants ɪill study a variety of maps: topograph-, geologic, botanic, and military.

pring Bird Walks ı Central Park

ine Tuesdays, March 27–May 22
oo–9:00 a.m. Code: ED21304X–or

ine Wednesdays, March 28–May 23
oo–9:00 a.m. Code: ED21305X–or

ine Thursdays, March 29–May 24
:oo–11:00 a.m. Code: ED21306X

ɪmited to 25 people per series
60

ɔbserve the spring migration of birds in ɛentral Park with naturalists Stephen C. ɔuinn (Tuesdays), Joseph DiCostanzo Wednesdays), and Harold Feinberg Thursdays).

Avoiding a Planet of Weeds: Environmentalism and Democracy in the 21st Century

Tuesday, April 17
7:00–8:30 p.m.
Code:ED21209L
$12 ($10 Members, students, senior citizens)

Join William Shutkin and Mark Dowie, both of whom are noted environmentalists and authors, for a provocative evening of discussion and debate about the state and future of American environmentalism.

Thursday Afternoons at the Museum

Four Thursdays, April 19-May 10
3:00–4:30 p.m.
Code: ED21213L
$33 for series ($29.50 members, students, senior citizens); $15 each ($13.50)

Slide-illustrated lectures with tea and cookies meet in in the Linder Theater.

April 19
Along the Silk Road

April 26
Ocean Life: A Changing Ecology

May 3
Making of Precious Stones

May 10
Four Wings and a Prayer: Caught in the Mystery of the Monarch Butterfly

URBAN FOREST WALKING TOURS

A significant portion of New York City is parkland, much of it with a remarkable diversity of tree cover and wildflowers. Participants will learn about plant identification and ecology from William Schiller, lecturer in botany in the Museum's Department of Education. Registrants will receive information on the location of the starting point for each tour. Limited to 25 people per tour.

Spring Flowers and Trees in Central Park

Wednesday, April 18 or Saturday, April 28 or Wednesday, May 2
8:30-11:00 a.m.
Code: ED21307X
$15
A morning walk in Central Park to observe botanical signs of spring. The Shakespeare Garden, Hernshead, and Strawberry Fields areas will be explored; participants will learn about plant biodiversity, identification, and ecology.

Please note: Tour meets at the 72nd Street Central Park West entrance to the park.

Northeast Forest, Van Cortlandt Park

Saturday April 21, 10:00 am-1:00 pm
Code: ED21308X
$15
Woodland surrounds a hidden wetland in this wild northeast corner of the park. Some of the best springtime wildflower areas are here.

march 2001

Current Exhibits

The Butterfly Conservatory: Tropical Butterflies Alive in Winter
October 7, 2000—May 28, 2001
Iceland, Land of the Vikings
Photography exhibition, Akeley Corridor Gallery
October 21, 2000—April 8, 2001

Monday	Tuesday	Wednesday	Thursday
			1 Earthwatch at the Museum: Impact of Global Warming on P Bears and Tundra Ecosystems *7:00–8:30 p.m.*
5 Rose Center Tour Spotlight Tour *12:45 p.m. and 2:45 p.m.*	**6** Rose Center Tour Spotlight Tour *2:45 p.m.* Behind the Scenes in the Department of Herpetology *6:00, 6:30 and 7:00 p.m. Members only*	**7** Walk on the Wild Side *7:00 a.m.* ***Each*** *Wednesday in March, for Contributor and higher level Members* Nonzero the Logic of Human Destiny *2:00–3:30 p.m.* *"Land of the Mammoth" 7:00–9:00 p.m.*	**8** The Little Ice Age: Ho Climate Made Histor *7:00–8:30 p.m.* Geology of the Revolutionary War in Metropolitan New Yo *7:00–8:30 p.m.* Animal Drawing *7:00–9:00 p.m.*
12 Rose Center Tour Spotlight Tour *12:45 p.m. and 2:45 p.m.*	**13** The Art of the Diorama *7:00 p.m. Members only*	**14** AARP Lecture Series: The History of Time *2–3:30 p.m.* Reading and Interpreting Maps *7:00–8:30 p.m.* The Art of the Diorama *7:00 p.m. Members only*	**15** Geology of the Revolutionary War in Metropolitan New Yo *7:00–8:30 p.m.* Animal Drawing *7:00–9:00 p.m.*
19 Rose Center Tour Spotlight Tour *12:45 p.m. and 2:45 p.m.*	**20** Rose Center Tour *2:45 p.m.* Margaret Meade Film & Video Festival–Rockets in Sprockets... *7:00 p.m., Kaufmann Theater*	**21** AARP Lecture Series: Ecology and History on the Hudson River *2:00–3:30 p.m.* Reading and Interpreting Maps *7:00–8:30 p.m.*	**22** Geology of the Revolutionary War in Metropolitan New Yo *7:00–8:30 p.m.* Animal Drawing *7:00–9:00 p.m.*
26 Rose Center Tour Spotlight Tour *12:45 p.m. and 2:45 p.m.*	**27** Manhattan Block by Block: Adventures in Urban Cartography *7:00 p.m., Kaufmann Theater*	**28**	**29** Animal Drawing *7:00–9:00 p.m.*

Please see pages 10 and 11 for Everyday Heroines weekend film listings, March 3–18

Friday	Saturday	Sunday
Starry Nights: Fridays Under the Sphere Jazz Performance *6:00–8:00 p.m.*	**3** Workshop: Girls Speak Out *11:00 a.m.–1:00 p.m.* Artist Talk: The Lower Eastside Girls Club *1:00 p.m.* Performance: Native American Womens' Dances *4:00 p.m.*	**4** My First Museum Diorama *11:00 a.m.–12:00 p.m. Members only* Artist Talk: The Lower Eastside Girls Club *1:00 p.m.* Performance: Native American Womens' Dances *4:00 p.m.*
Starry Nights: Fridays Under the Sphere Jazz Performance *6:00–8:00 p.m.*	**10** Performance: I'm Every Woman 1:00 p.m. and 4:00 p.m. Lecture (In Spanish): Paticipation and Decision Making of Indigenous Women *3:30 p.m.*	**11** Sign Language Discovery *1:00 p.m.* Performance: I'm Every Woman 1:00 p.m. and 4:00 p.m. Lecture (In Spanish): Paticipation and Decision Making of Indigenous Women *3:30 p.m.* Workshop: Weaving Through Diversity with Beads from 10:00 a.m.–1:00 p.m.
Starry Nights: Fridays Under the Sphere Jazz Performance *6:00–8:00 p.m.*	**17** Performance: Voyage in Syllables *1:00 p.m. and 4:00 p.m.* Artist Talk: Paper Dreams *3:00 p.m.*	**18** Workshop: Dancing Home *11:00 a.m.–1:00 p.m.* Performance: Voyage in Syllables *4:00 p.m.* Artist Talk: Paper Dreams *3:00 p.m.*
Starry Nights: Fridays Under the Sphere Jazz Performance *6:00–8:00 p.m.*	**24** Dragons Spotlight Tour *10:45 a.m.*	**25** Gems and Stones of Sherlock Holmes Spotlight Tour *1:45 p.m.*
Free Hall Tour: Department of Ornithology *6:15 p.m. Members Only* Starry Nights: Fridays Under the Sphere Jazz Performance *6:00–8:00 p.m.*	**31**	

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
Central Reservations	(212) 769-5200	*Website: http://www.amnh.org*	

program listings

DEPARTMENT OF EDUCATION PRESENTS...

Everyday Heroines

March 2001
A celebration of womens' lives through performances, films, and lectures.

Weekend Family Programs meet in Leonhardt People Center, second floor. Family Workshops meet in Calder Lab, Charles A. Dana Education Wing.
1:00 p.m. to 5:00 p.m.

March 3-18

Art Installation: Paper Flower/Bitter Fruit
Mary Ting
Leonhardt People Center, second floor.
March 3–March 18 (Open Weekends Only)
In conjunction with the slide presentation, *Paper Dreams*, visual artist Mary Ting created a site-specific installation that combines personal imagery with Chinese folk-art concepts and motifs. The exhibit also includes papercuts by several contemporary Chinese women folk-artists.

From *Kinaalda', Navajo Rite of Passage*

Photography Display: Ordinary Days with Extraordinary Women
The Lower Eastside Girls Club Photography Project
Charles A. Dana Education Wing, 2nd Floor
March 3–March 18
The Girls Club expresses the ties that bind generations of women in an exhibition of digital self-portraiture, writing and family photomontages, honoring themselves, their mothers, and other women in their lives.

Saturday, March 3 only

Workshop: Girls Speak Out
11:00 a.m. to 1:00 p.m.
Calder Lab, second floor
Code: ED01238M, registration required.
Limited to 25 participants.
Girls Speak Out, a program co-founded by Andrea Johnston and Gloria Steinem, is a book and an action network that connects girls around the world. The workshop, led by Johnston examines female artifacts from history and personal experiences that inspire and strengthen our self-image. Participants will share and listen to stories, create their own artifacts, and write.

Saturday and Sunday, March 3 & 4

Artist Talk: The Lower Eastside Girls Club
1:00 p.m.
Members of the Lower Eastside Girls Club give voice to their lives via their documentary photography and writing. They also share how their experiences as Girls Club members have impacted their lives.

Film Panel Women Filmmakers and Media that Matters
2:00 pm
Five women filmmakers, ranging in age and experience, share their work and discuss the issues they feel are most important to women today.
The program is being produced by MediaRights.org, a community site for media makers, activists, educators and librarians.

Film: *Kinaalda', Navajo Rite of Passage*
3:00 p.m
Lena Carr, filmmaker, 2000,56 min.
A Navajo filmmaker turns the camera on herself and her family as she documents the Kinaalda', a rite of passage ceremony. The film is a rare, inside revelation of Navajo culture.

Performance: Native American Womens' Dances
4:00 p.m.
Margaret, Kathleen and Patricia Tarrant, three teenage sisters from North Dakota, share traditional Native American womens' dances.

Saturday and Sunday, March 10 & 11

Performance: I'm Every Woman
1:00 p.m. and 4:00 p.m.
Daughters of the Flame, an all-female ensemble from the Abyssinian Baptist Church, explore contemporary themes around womanhood and sisterhood. The "Daughters" perform a musical program of inspirational songs.

Film: *I Was Born a Black Woman/Nasci Mulher Negra*
2:00 p.m.
Maisa Mendonca and Vicente Franco, filmmakers, 2000, 44 min.
Portuguese with English subtitles.
Music, poetry, and dance chronicle the remarkable life of Benedita da Silva, the first Afro-Brazilian woman to be elected to the Brazilian Senate. Discussion follows with Jacqueline Jimenez Polanco, professor of Puerto Rican/Latin American Studies at John Jay College of Criminal Justice-CUNY.

From *Just Mom and Me*

Fi n: *The Equal Worth of Women/Mujeres d Mismo Valor*
3.0 p.m.
G llermo Monteforte, filmmaker, Mexico 19 9, 26 min.
S nish with English subtitles.
T s film documents how women in C xaca, Mexico organized to play a role ir heir state's coffee production c perative (CEPCO). In a series of ir erviews, women recount their a ievements and theirchallenge to s iety's traditional view of women.

L ture (In Spanish): Participation and D ision Making of Indigenous Women
3 0 p.m.
M ria Carmen Tene Sarango, educator a ivist, and gender coordinator of the I digenous Institute of Science and C lture (I.C.C.I.) of Ecuador, highlights t e struggles women face when c ganizing within the public arenas of e ucation and government.

S nday, March 11 only

\orkshop: Weaving Through I versity with Beads
1 00 a.m. to 1:00 p.m.
C lder Lab, second floor
C de: ED01239M
M terial Fee: $10.00. Registration r quired. (Limited to 15 people.)
M aria Carmen Tene Sarango teaches the v lues, concepts and meanings which a e part of indigenous women's necklace b ading. Participants will make their o vn beaded necklace.

S turday and Sunday, March 17 & 18

E rformance: Voyage in Syllables
1 00 (Saturday Only) and 4:00 p.m. (Saturday & Sunday)
I spired by her pilgrimage to Calcutta, I dia, performance artist Mita Ghosal i vestigates the lives of women in her family and the common stories that they share. Ms. Ghosal uses dance, storytelling and visual art to tell her tale.

Film: *Just Mom and Me Single Motherhood*
2:00 p.m.
Yvette Troell, director/producer, 2000
60 min.
There are 25 million single mothers from all walks of life heading households in America. *Just Mom and Me* interweaves the stories of five mothers raising children on their own. Filmed over three years, this portrayal of the financial and emotional challenges of single parenting includes perspectives from both mothers and their children.

Artist Talk: Paper Dreams
3:00 p.m.
In the Yellow River Plateau of China, papercuts play an integral role in the rituals and customs of rural life. Mary Ting, a Chinese American visual artist, presents a slide lecture and discusses her research on Chinese papercuts, their influence on her art and on contemporary art from China.

Sunday, March 18 only

Workshop: Dancing Home
11:00 a.m. to 1:00 p.m.
Calder lab, second floor
Code: ED01240M. Registration required. Limited to 15 participants.
Using creative writing, movement and drawing exercises, single mothers and their children will explore their concepts of "home", both literally and figuratively. Active participation and group sharing will be encouraged.
No experience necessary. For single mothers, their children (ages 10 and up) and those who identify with the experience.

Sunday, March 18 only
Film: *The Mirror Lied*
1:00 p.m.
Jennifer Haskin-O'Reggio, Director, 1999
27 min
This film depicts the filmmaker's fifteen-year-old sister, Jantre, as she struggles to accept her appearance.

Film: *Tofu*
1:30 p.m.
Kit Hui, filmmaker, 2000, 17 min.
Mandarin with English subtitles.
Tofu navigates the fragile yet affectionate relationship between a Chinese immigrant grandmother and her American born grandson. Discussion follows with the filmmaker.

Film: *Stretchmark*
1:50 p.m
Veena Cabreros-Sud, filmmaker, 1996
9 min.
A raw look at the interior life of a single mother, *Stretchmark* examines the taboo emotions of single parenthood: loneliness, boredom, and anger. The film is an inquiry into assumptions surrounding motherhood and family.

The American Museum of Natural History wishes to thank the May and Samuel Rudin Family Foundation, Inc., the Tolan Family, and the family of Frederick H. Leonhardt.

All programs are free with suggested Museum admission. For programs that require registration, please call Central Reservations at (212) 769-5200.

For further information, call the Department of Education at (212) 769-5315, or visit www.amnh.org/education.

program listings

CHILDREN'S WORKSHOPS

Children should bring a bag lunch for three hour programs.

Musical Instrument Making

Sunday, March 25
10:30 a.m.–1:30 p.m.
Ages 10–11
$15
Tzawarmarks, three Mitimaes artists from Salsaca, Ecuador, will perform using musical instruments of their country. Children will learn how to make and play these instruments, while discovering the world of Ecuadorian music.
A visit to the Hall of South American People to see instruments of the Sipan and Amazonian cultures is also included. Bring a bag lunch.

Voyage to the Bottom of the Sea

Sunday, April 1
10:30 a.m.–1:30 p.m.
Ages 8- 9
$15
Take a voyage into the magical kingdom of the tropical seas in a multi projector slideshow to experience marine life through stunning underwater photographs, stories, and music. A visit to the Andros Coral Reef exhibit to identify a variety of fish and other marine creatures is included. Children will create a collage of sea animals for a marine print. Presented by Ziggy Livnat, former director of Sea Studies and Environment, *Arava* elementary school, Israel.

Beads, Bones, and Claws

Sunday, April 1
10:30 a.m. - 1:30 p.m.
Ages 9 - 10
$15
Learn about the origins of beadwork and how the Native Americans of the Eastern Woodlands and Plains used beads in object design for different lifestyles. Presented by Elizabeth McMahon, children's book author and volunteer in the Department of Education.

All About Fish

Sunday, April 22
10:30 a.m. - 12:00 noon
Age 5 (child and one adult)
$10 (child and one adult)
This hands-on program investigates the fascinating world of fish. Children will make Gyotaku fish prints and will visit the Hall of Ocean Life.

Fun With Fossils

Sunday, April 22
10:30 a.m. - 1:30 p.m.
Age 8 - 9
$15
Pamela Popeson, artist, educator and former director of the Fossil Reproduction Department, will show children fossil reproductions and real tooth specimens. Children will make a mammoth tooth reproduction and visit the Dinosaur Halls.

Undersea Neighbors

Sunday, April 22
10:30 a.m. - 11:30 p.m.
Age 4 (child and one adult)
$10 (child and one adult)
Using specimens in an interactive story, children will learn about various marine animals. A take-home art project and a visit to the Hall of Ocean Life are included.

MARGARET MEAD FILM & VIDEO FESTIVAL PRESENTS...

Rockets in Sprockets: Multimedia Explorations of Space

A series of events to celebrate the first anniversary of the Rose Center for Earth and Space and the renovated Hayden Planetarium.

Red/Blue Glasses Revisited: A 3-D Journey Through Space and Time

Tuesday, March 20, 7:00pm
Kaufmann Theater
Free
A group of 3-D pictures created at the Hayden Planetarium during World War II became the inspiration for Gerald Marks' career of creating 3-D installations in science museums throughout the world. The evening's presentation is a digital 3-D slide show that ranges from newly restored images to stereoscopic views of inner and outer space. 3-D Glasses will be provided.

J hn Burroughs Programs

J n Burroughs (1837-1921) was a l ding literary critic and a pioneer in n ure writing. The John Burroughs A ociation, Inc., founded and h adquartered at the Museum, p sents programs and talks to preserve p ces associated with the life of the f nous naturalist. It also maintains S bsides, the rustic cabin he built and v ere he studied nature and wrote s me of the essays that won him fame.

A ociation Annual Meeting
M nday, April 2
1 30-11:45 a.m.
F ple Center

A nual Literary Lunch and A ard Ceremony
M nday, April 2
1 00 noon-1:30 p.m.
H ll of Asian Peoples

T e Association announces the awards f its 74th annual Literary Medal A ard competition for exceptionally f e nature writing, the 12th annual c mpetition for the John Burroughs List c Nature Books for Young Readers, and t e 8th annual competition for An O tstanding Published Natural History E say. Call (212) 769-5169 for i formation and reservations.

S bsides Day
S turday, May 19
1 00 noon

J n the friends of The John Burroughs A sociation for an open house at the N tional Landmark Slabsides Museum a d a special event centered on the n turalist-writer. For more information c ll (212) 769-5169.

Conservation Genetics in the Age of Genomics

2001 Spring Symposium
April 4 - 6

This international gathering of biologists, ecologists, geneticists, conservation resource managers, and students will convene to discuss the expanding role of molecular technology as current and proposed conservation management strategies are evaluated. Presenters will explore the increasing importance of genetics research to the conservation of biodiversity. The symposium is being jointly sponsored by the American Museum of Natural History's Center for Biodiversity and Conservation and the Bronx Zoo-based Wildlife Conservation Society.

Can Biotechnology Save the World's Species?

Wednesday, April 4
7:00 p.m.–9:00 p.m.
American Museum of Natural History, IMAX Theater
Fee: $12 ($10 for Museum and Wildlife Conservation Society members)

Jeremy Rifkin, President of the Foundation on Economic Trends, considers the benefits, risks, and limitations of cloning, genetic engineering, and genomics in the conservation of biodiversity. Joining him in a discussion on the future of conservation genetics will be Val Giddings, Vice-President for Food and Agriculture, Biotechnology Industry Organization, and Josh Ginsberg, Director for Asia Programs, Wildlife Conservation Society. This event marks the start of the Conservation Genetics symposium.

Thursday and Friday, April 5 and 6
9:00 a.m.–6:00 p.m. (Thursday)
9:00 a.m.–4:00 p.m. (Friday)
Fee: $100 ($75 for Museum and Wildlife Conservation Society Members; $50 for students and seniors)
American Museum of Natural History, Kaufmann Theater

Two days of presentations explore the role of genetic research in conservation biology. Speakers will discuss the future of conservation genetics, and the broader application of these technologies to issues of ecology, biodiversity, human history, landscape changes, and species recovery.

A poster session and reception will be held at the Central Park Zoo on Thursday, April 5, from 6:00-8:00 p.m. (Open to those attending the April 5 and 6 presentations.)

Support for the symposium was provided by Mr. and Mrs. Samuel C. Johnson. For more information or to register, please call (212) 769-5200, or visit the CBC website at http://www.amnh.org/biodiversity

museum notes

Vanessa Rubin

Friday Jazz

Starry Nights: Fridays Under the Sphere, a weekly series of live jazz at the Rose Center for Earth and Space, continues in March with performances by the Vanessa Rubin Quartet.

The set begins every Friday at 6 p.m. Cash bar and tapas are available.

Call (212) 769-5100 for more information.

IMAX Schedule

Ocean Oasis

Sunday–Thursday:
10:30 a.m., 12:20 p.m., 2:10 p.m., 4:00 p.m.
Friday–Saturday:
10:30 a.m., 12:20 p.m., 2:10 p.m., 4:00 p.m., 5:50 p.m., 7:40 p.m.

Shackleton's Antarctic Adventure

Sunday–Thursday:
11:25 a.m., 1:15 p.m., 3:05 p.m., 4:55 p.m.
Friday–Saturday:
11:25 a.m., 1:15 p.m., 3:05 p.m., 4:55 p.m., 6:45 p.m.

Schedule and prices are subject to change without notice.
Please contact (212) 769–5200 for up-to-date information.

Spring Break at the Museum Food Court!

Restaurant Associates welcomes spring with our colorful bouquet of Jell-O Parfaits.

Our Parfaits have seasonal fruit floating inside a tall cup of Jell-O topped by a swirl of fresh Whipped Cream. A full bloom of flavors includes Kiwi, Tangerine, Blueberry, Peach and Raspberry. In March, Museum Members may purchase one Jell-O Parfait and get one free, a $2.95 value.

As always, Members of the Museum receive a 15% discount at the Museum Food Court, Café on 4 and Café 77. To obtain a discount simply present your membership card at the start of your transaction.

Birthday Parties at the Museum

Linda Kaye's *Birthdaybakers, Partymakers* bring their winning combination of education and entertainment to AMNH with five exciting ways to transform your child's birthday into an unforgettable event. Choose from Cosmic Blast-Off, Safari Adventure, Global Mysteries, 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.

Spotlight Tours

Tours begin at the entrance to the Akeley Hall of African Mammals, on the second floor.

Search for the Nile
March 11; 1:45 p.m.

Rose Center
March 5, 12, 19, 26; 12:45 p.m.
March 5, 12, 19, 26; 2:45 p.m.
March 6, 20; 2:45 p.m.
March 13, 27; 12:45 p.m.
An introduction to the Rose Center.

Dragons
March 24; 10:45 a.m.
Dragons of fact and fantasy.

Gems and Stones of Sherlock Holmes
March 25; 1:45 p.m.
Tour of the Hall of Gems and Minerals, featuring gems and minerals mentioned in *The Adventure of Sherlock Holmes.*

Fossil Explainers
Monday–Thursday, 1:00–5:00 p.m.
Friday, 1:00–8:00 p.m.
Saturday, 10:00 a.m.–8:00 p.m.
Sunday, 10:00 a.m.–5:00
Trained Fossil Explainers (identified by a red button) will answer questions about fossils and paleontology.

Earth and Space Explainers
Monday–Thursday 1:00–5:00 p.m.
Friday 1:00–8:00 p.m.
Saturday 10:00 a.m.–7:00 p.m.
Sunday 10:00 a.m.–5:00 p.m.
Earth and Space Explainers (identified by a purple button) are trained to answer questions about astronomy and geology.

Foreign Language Tours

Deutsche Fuhrung
March 20, 27; 11:00 a.m.
Museum Highlights tour in German.

Visita del Mueso
March 22, 29; 11:00 a.m.
Museum Highlights tour in Italian.

Jesup's Circle: In the Footsteps of a Museum Founder

The name of Morris Ketchum Jesup is familiar to many Members and friends acquainted with the fascinating history of the American Museum of Natural History. One of the original incorporators of the Museum on December 30, 1868, Jesup was elected a Trustee on February 1, 1869. From 1869 until his death on January 22, 1893, he served as a President whose dedication, creative vision, and unfailing support set the Museum on course to become the world-renowned center for science education and research that it is today.

Jesup culminated his service to the Museum with a magnificent final expression of his commitment and concern: a bequest of $1 million in his Will. Believing firmly in the value and importance of endowment for the institution's long-term stability and well being, he designated his bequest for this purpose. In his own words,

"I give and bequeath to The American Museum of Natural History in the City of New York One million dollars ($1,000,000), to constitute a permanent fund, the principal to be invested and kept invested, and the income to be applied and appropriated to the general purposes of the Museum... I believe it (the Museum) to be today one of the most effective agencies which exist in The City of New York for furnishing education, innocent amusement and instruction. It can be immensely increased in its usefulness by increasing its powers... This means that for this purpose, the necessary amount must come from individual donors. It is...in view of its great possibilities for the future, that I make for the Museum the bequests and provisions contained in my Will..."

Morris Ketchum Jesup was the first donor of a million estate gift in the Museum's history. Over the years, there have been a few other extraordinary friends who have followed his example by directing substantial legacies to the museum. Today, the Natural History Society, the Museum's association to thank and recognize all the generous individuals who have made provisions for the Museum's future, includes members who have arranged bequests and other planned gifts of $1 million or more. To honor those friends who are following in the footsteps of one of the institution's most distinguished founders, the Museum is inaugurating Jesup's Circle.

In the hope of encouraging others in the Museum community to join them in planning for the institution's future, several members of Jesup's Circle have been kind enough to share the thoughts, feelings, and reasons that motivated their gifts. Like Morris Ketchum Jesup, Honorary Trustee Joseph F. Cullman, 3rd, has served for many years on the Museum's Board. According to Joe, "I can only say–from the bottom of my heart–that AMNH, especially in recent years under the leadership of Ellen Futter and Anne Sidamon-Eristoff, has been one of the most inspirational experiences of my life."

World traveler and explorer Robert H.Rose says, "There's no better way to advance the knowing of our celestial home than using as yet unused money and knowing its value to others. Nothing does it better than AMNH!"

John Colgrove expressed his life-long love of AMNH, "Even though I now live in California, I grew up in the New York City area–and at the Museum–as did my father before me. Now when I visit back East, I enjoy taking my three nephews to the Museum all the more, knowing that I'm helping to ensure its future."

With characteristic wit and warmth, Everett Hoffman notes, "Having spent years on my professional education in painting, industrial design and art history, I had

neglected my early interest in the natural sciences. Living but a few blocks from AMNH, I have been able to make up this educational deficit through dozens of lectures and courses over the past 30 years. My charitable gift to the Museum is my means of repaying this educational debt. To paraphrase Winston Churchill (in a rather different context), 'I took more out of it than it took out of me.' "

Speaking for herself and her husband, Linda Starzman says, "Bill and I realized that we wanted to preserve and continue the wonderful work of the Museum for future generations. Not only is AMNH the keepsake of the natural world, but the research is so vital to preserve the environment and all the diversity of life it contains. It's an honor for us to be part of that and, in so doing, to share our love and joy in the world."

For further information about Jesup's Circle and the Natural History Society, please call the Planned Giving Office at (212) 769-5119 or toll-free at (800) 453-5734.

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.

Membership Department,
Central Park West @ 79th Street
New York, New York 10024-5192
www.amnh.org

AMERICAN MUSEUM OF NATURAL HISTORY

Central Reservation Coupo

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.

Rotunda.
American Museum of Natural History
Received on: 03-02-01

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.

rotunda

OL. 26 No. 4 April 2001

Members' Newsletter

AMNH education programs

H70
U52
5
. 26
o. 4
pr 2001

American Museum of Natural History

AMNH education programs:

young people contributing to science and to the life of the Museum

Young people have always been a vibrant and vital part of the Museum community. In the last few years, the Department of Education has expanded its goal of reaching young people who have had less opportunity to benefit from its resources. Three programs in particular are devoted to fostering the talents of high school and junior high school students in the New York City area and are encouraging young people to become active scientists and members of the Museum community.

The programs tap the vast resources of the Museum's research and exhibition facilities and share these riches with young people. Students go behind the scenes and become insiders with a sense of ownership in the life of the Museum. The programs also encourage interaction with scientists and adult professionals in a range of departments with the understanding that young people have the capacity and desire to be deeply engaged with the Museum and with the investigation of science and culture.

Shari Robinson, Lillian Lim and Gail Chen A[illegible] day show off their dinosaur models

AMNH's Lang Science Team was established last year with a grant from the Eugene M. Lang Foundation. The program provides an opportunity for students to satisfy their curiosity about the natural world and learn about the variety of options available to them in the sciences and cultural studies. The group of students who enter the Lang program as seventh graders will have the opportunity to stay together throughout their high school years, as they become more deeply involved with the Museum and start to develop their own research projects.

Being a member of one of the youth programs at the Museum is also a lot of fun! This past summer, the Lang Science Team took a trip back to the Age of Dinosaurs, visiting the Museum's Halls with Adriana Aquino of the Department of Vertebrate Zoology and Jason Brougham of the Department of Exhibition. After learning about many types of dinosaurs, students crafted models of their favorite dinosaurs using the same tools and techniques as the exhibition staff. Activities and field trips are a creative outlet and also help to build a sense of teamwork.

Inside View: New York City High School Internship Program was started last year with support from The Picower Foundation. It reveals the internal workings of the Museum to high school students through a combination of behind-the-scenes tours and placements as interns in departments ranging from the sciences to human resources to security. Students often discover new interests through this career development program.

Esmeralda Cordero hadn't really heard the term "Herpetology" before she met Dave Karrmann, senior instructor in the Department of Education, but now she hangs out with corn snakes and ventures into the wilds of Black Rock Forest in Cornwall, New York to classify turtles. Esmeralda joined the Inside View program in November 2000 with a strong interest in science and medicine–she has wanted to become a doctor since she was very young–but didn't have a specific focus. Though she may pursue a medical career in college, Esmeralda says that Inside View has opened her eyes to areas and pursuits that she never dreamed of before.

The Precollege Science Collaborative (PSC), established in 1992, is the longest running and most intensive of the three programs. PSC capitalizes on the resources and commitment of the Museum's scientists, offering high school students a two-year research experience of the sort usually reserved for college and graduate students.

Nicole Arriaga, of the PSC team,

[illegible] Gutierrez (on the left) and Monique McCatty g[illegible] be[illegible] the [illegible] with Dave Karman [illegible] dep[illegible]

'orked with AMNH volcanologist 'harles Mandeville on measuring ater levels in volcanic rock. This :search may someday help) "constrain the rates at which nagma rises in the Earth's crust uring volcanic crises" and thereby ssen the devastating impact of ruptions. "This is work I started as 'grad student and never finished," ays Charles Mandeville. "Nicole ould do something that's a signif-tant contribution, but I didn't have second set of hands [to do the esearch]."

Students bring life and passion to the Museum's research labs. Yelena Chernyavskaya of Inside iew says the biggest surprise so far vas how "cool" the scientists are, eferring to her mentor Rob DeSalle, MNH scientist in the Department f Invertebrate Zoology and his olleagues. Yelena is doing some f the essential tasks involved in equencing genes of the fruit fly. his is an undertaking that can be edious to some but is vitally im-ortant to the research project. laving high school students who re eager and fascinated to work in lab is a contribution to the re-earch and also good for the lab nvironment.

The AMNH Lang Science Team and Inside View programs are just over a year old but have attracted students with an eagerness to learn and to apply their knowledge in future endeavors. Their lives have been enriched by the programs, and the Museum is the recipient of their passion and energy. This Spring, the PSC program will graduate its eighth class. The PSC graduates, who will go on to careers in science, technology, academia and other fields, will gather this summer to share a wealth of experiences which all started with their group of friends at the Museum.

The Precollege Science Collaborative is funded by the Altman Foundation, the Edward S. Moore Foundation, Inc., the Helena Rubinstein Foundation, and The Schnurmacher Foundations.

The AMNH Lang Science Team was established by a grant from the Eugene M. Lang Foundation.

Inside View is supported by The Picower Foundation and The Pinkerton Foundation.

[illegible] Inside View s[illegible] trip to the Nati[illegible] Museum of t[illegible] Indian [illegible] meeting with their [illegible] exchange [illegible] to right: Jessica Chris AMNH [illegible] Seth Tracy Paul, Lukay Hsu [illegible] right: Monique McCatty Mary Hu[illegible] Gutierrez Missing from picture: [illegible] Mitchell. *Photos on the [illegible] page [illegible] Inside View coordinator.*

Cover: MA[illegible] PSC students at B[illegible] Forest preserve in Cornwall, New York.

Please send us your email address!

Future plans include offering an online version of Rotunda. The first step is to collect the email addresses of Members who are interested in receiving the publication via email.

Please send a message to members@amnh.org and include your name and postal address or membership number.

rotunda

ISSN 0194-6[illegible]
V[illegible] 26 No 4, April [illegible]

Mark Shoffner, *Editor*
Rose[illegible]y Cauk, *Director of Membership*
Lynn DeBow, *Vice President for Development and Membership*
Ellen V Futter, *President*
Lewis W Bernard, *Chairman*

Rotunda is published monthly except for combined issues July/August by the Membership Office of the American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192. Telephone (212) 769-5606. Web address: www.amnh.org. Membership $45 per year and up. Subscription to *Rotunda* $20. © 2001 American Museum of Natural History. Periodical postage paid at Rutherford, NJ, and at additional mailing offices. Postmaster: Please send address changes to *Rotunda*, Membership Office, AMNH, at the above address. Printed in the USA.

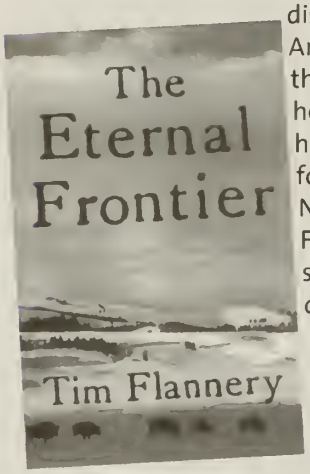
members' programs

MEMBERS' LECTURES

The Eternal Frontier: An Ecological History of North America and its Peoples

Tuesday, May 8
7:00 p.m.

Join renowned mammalogist and paleontologist Tim Flannery for a discussion of American history in the most comprehensive sense: the history of the formation of North America. Flannery will show how our continent came into being with an asteroid strike 65 million years ago, and was gradually transformed into the land we know today. Events as diverse as the ice ages, the ecological changes wrought by the first humans, and lesser-known episodes such as the arrival of giant killer pigs (enteledonts–see illustration) from Asia, will be discussed as factors that shaped our modern landscape.



Tim Flannery is the Director of the South Australian Museum and a former visiting professor of Australian studies at Harvard University. He is the author of eight books, including *Throwim Way Leg*, a chronicle of his research in New Guinea. *The Eternal Frontier: An Ecological History of North America and Its Peoples* is his latest book.

Kaufmann Theater
Code: MM5-1
Cost $10 Members, $12 non-members

Wild Nights

Tuesday, May 29
7:00 p.m.

Deer in Manhattan, coyotes in the Bronx, wild turkeys flying down Broadway: amidst the traffic and tall buildings of America's most urban terrain, another community—invisible during daylight—has begun to stake a claim. Join author Anne Matthews for an introduction to our city's other inhabitants—those that cleverly make their homes in our in-between spaces. Matthews will examine confrontations between the urban and natural worlds, posing the question, "How far can we push the environment before it pushes back?"

Anne Matthews

Anne Matthews has taught at Princeton, Rutgers, Columbia, and New York Universities. She is the author of *Where the Buffalo Roam*, Pulitzer Prize Finalist in General Nonfiction in 1993. *Wild Nights* is her latest book and will be available for purchase and signing following the lecture.

Kaufmann Theater
Code: MM5-2
Cost: $10 Members, $12 non-members

MEMBERS' EXPEDITION

Theodore Roosevelt: Naturalist

Saturday, May 5
8:45 a.m.–5:00 p.m.

Theodore Roosevelt is known to many as the Conservation President, but fewer people know that he was also considered one of the foremost field biologists of his time. Join Kathryn Callaghan, Coordinator for Membership Programs and explore the historic sites of Oyster Bay, Long Island. We will learn about T.R. as he is commemorated in the Museum's Roosevelt Memorial Hall: "Lover of nature and outdoor life, collector of birds and mammals in Long Island and the Hudson Valley...closing his life as intrepid explorer and adventurer at the head of expeditions to Africa and South America."

We will visit Roosevelt's home, Sagamore Hill, where National Park Service staff will lead a tour focusing on Roosevelt's love of nature and his association with AMNH. Afterwards, we will visit the Theodore Roosevelt Sanctuary, an Audubon Bird Sanctuary established in his memory. There we will learn about Roosevelt's study of Long Island wildlife and about his legacy of conservation as we hike through the Sanctuary's woodlands.

Code: MM5-3
Cost: $65 Members, $75 non-members

MILY PROGRAM

ory Night in the Akeley Hall of African ammals
ursday, May 3
30 p.m.
the evening hours after the Museum s closed, the halls are quiet and the imals seem more alive...

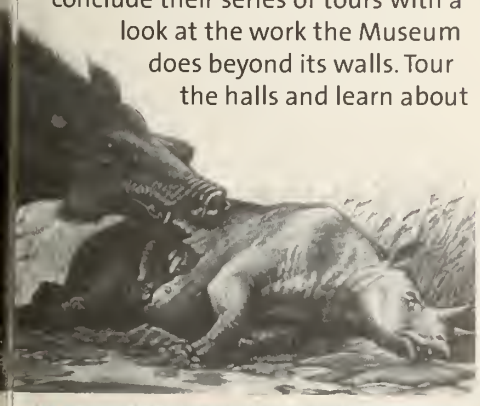
in nationally acclaimed storyteller arbara Aliprantis for an evening of imal tales. With the Akeley Hall oramas as a backdrop, Barbara will ke us back to the time when story-lling was one of the only forms of ntertainment and the teaching tool f choice: "A time when animals could lk and people listened." This family ogram is suitable for children 6 and der.

keley Hall of African Mammals
ode: MM5-4
ost: $12–Members only

REE HALL TOUR

enter for Biodiversity and onservation

riday, May 11 or Saturday, May 12
:15 p.m.
he Museum promotes research and onservation worldwide. Museum ocents Suzi Zetkus and Bill Hinchman conclude their series of tours with a look at the work the Museum does beyond its walls. Tour the halls and learn about the Center for Biodiversity Conservation and the research conducted at the Museum's Southwest Research Station in Arizona and on Great Gull Island.



ration Peter Schouten, from Tim Flannery's The Eternal Frontier.

Advance registration is required.
Meets in the Portrait Room
Code: MM5-5
Cost: Free–Members only

WORKSHOP

Geology Models

Tuesday, May 15 and Wednesday, May 16
6:00–8:00 p.m.
Most of the Earth's features and processes are best understood when seen in three dimensions. This two-part workshop will introduce you to the making of paper models that explain a wide variety of geologic processes. In addition to constructing the models we will learn about the processes they illustrate through a lecture and slide presentation.

Sidney Horenstein, Coordinator for the Museum's Environmental Programs, will present this workshop.

Meets in the Rose Center Classroom.
Code: MM5-6
Cost: $45 Members, $55 non-members

PREVIOUSLY LISTED

Dinosaur Imagery: The Science of Lost Worlds and Jurassic Art

Tuesday, April 3
7:00 p.m.
Join John Lanzendorf, owner of the world's largest collection of dinosaur paintings and sculpture, for an exploration into the lost worlds of Jurassic art. Lanzendorf will use images from his book, *Dinosaur Imagery: The Science of Lost Worlds and Jurassic Art*, and will draw on the commentary provided by paleontologists including Mark Norrell and Phil Currie.

Kaufmann Theater
Cost: $10 Members, $12 non-members
Code: MM4-1

Putting Species Back into Human Evolution: Why Should Our Evolution Be Different from Other Animals?

Thursday, April 19
7:00 p.m.
Jeffrey H. Schwartz, professor of Physical Anthropology at the University of Pittsburgh and research associate in the Museum's Department of Anthropology, will highlight some of the discoveries made with his colleague, Ian Tattersall, curator of Physical Anthropology at the Museum. Their collaboration over the past eight years, culminating in the book, *Extinct Humans*, is essentially the first study of the entire human fossil record.

Kaufmann Theater
Cost: $10 Members, $12 non-members
Code: MM4-2

Owls!

Sunday, April 29
1:00 p.m.
The owl is a bird that has long exerted a fascination over the human imagination because of its hunting ability and its mysterious nocturnal life.

Children ages 8 and up and their families are invited to take an in-depth look at the lives of these fascinating and often misunderstood nocturnal birds of prey. Ellen Goldberg of New Jersey's Raptor Trust will introduce many of the owl species native to this area. Learn about owl habitats, and meet a live owl!

Linder Theater
Cost: $10, Code: MM4-6

program listings

DEPARTMENT OF EDUCATION PRESENTS...

Avoiding a Planet of Weeds: Environmentalism and Democracy in the 21st Century

Tuesday, April 17
7:00–8:30 p.m.
Code:ED21209L
$12 ($10 Members, students, senior citizens)

Join William Shutkin and Mark Dowie, both of whom are noted environmentalists and authors, for a provocative evening of discussion and debate about the state and future of American environmentalism.

Thursday Afternoons at the Museum

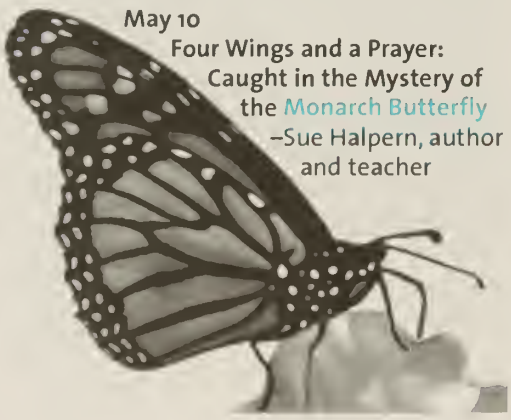
Four Thursdays, April 19-May 10
3:00–4:30 p.m.
Code: ED21213L
$33 for series ($29.50 Members, students, senior citizens); $15 each ($13.50)

April 19
Along the Silk Road–Karen Kane, manager of museum teaching and learning

April 26
Ocean Life: A Changing Ecology–Lisa Breslof, senior museum instructor

May 3
Making of Precious Stones–Peter Vreeland, senior museum instructor

May 10
Four Wings and a Prayer: Caught in the Mystery of the Monarch Butterfly
–Sue Halpern, author and teacher



Revolutionizing Medicine in the 21st Century

Four Tuesdays, May 1-22
7:00-8:30 p.m.
$30 for series ($27 Members, students, senior citizens); $12 each ($10 Members, students, senior citizens)
Code: ED21206L

In this four lecture series, leading doctors, scientists, and researchers explore how pioneering neuroscience discoveries are profoundly changing medicine in the 21st Century. Each talk will discuss a separate issue.
The series is co-sponsored by New York Presbyterian Hospital, Columbia University College of Physicians and Surgeons, and Weill Medical College of Cornell University. For additional information call 212-769-5176.

May 1
Genetics and the Brain–Richard Mayeux, professor of Neurology, Psychiatry and Public Health, Columbia University College of Physicians and Surgeons

May 8
Learning and Memory–Dr. Eric Kandel, Nobel prize winning, Professor of Neurobiology and Behavior, Columbia University

May 15
Development and Cognition–Dr. Michael Posner, Sackler Professor of Developmental Psychobiology, Director, Sackler Institute, Weill Medical College of Cornell University

May 22
Brain Imagery–Dr. David Silbersweig, Co-Director, Functional Neuroimaging Laboratory, Director, Neuropsychiatry Program, Associate Professor of Psychiatry and Associate Professor of Neurology and Neuroscience, Weill Medical College of Cornell University

Bird Identification for the Beginner

Saturday, May 5
10:30 am–3:00 p.m.
$55 (includes sandwich lunch; no discount for members, students, senior citizens)
Code: ED21311X

This workshop helps novice birders learn identification techniques such as charting, recording, and observation. After viewing Museum specimens that represent birds in the New York area, the class moves to Central Park for practical experience. Joseph DiCostanzo, research assistant on the Great Gull Island Project and president of the Linnaean Society, leads this program. Limited to 25 adults.

Birdsong in Nature and Human Culture

Saturday, May 12, 10:30 a.m.–5:00 p.m. and Sunday, May 13, 4:00–7:30 a.m. (two day course, Sunday is optional)
$65 (includes a short break and light snack for participants on both days; no discount for members, students, senior citizens)
Code: ED21208L

Birds create sounds that have meanings for the birds themselves, and scientific, aesthetic, and utilitarian significance for us. Ornithologist Jeffrey Boswall will present recorded examples and video clips of birdsong from around the world, with an emphasis on Europe and North America. He will also demonstrate a variety of bird whistles. In addition to the slide-illustrated talks is the "Dawn Chorus Walk" on Sunday morning to experience birdsong in Central Park with Museum naturalist and New York birder Jay Holmes. You may sign up for the "Dawn Chorus Walk" in conjunction with this program, or separately.
A signed copy of Boswall's *The Language of Birds* will be presented to each participant.

PHOTOGRAPHY EXHIBITION

Ancient Microworlds

April 28-September 9, Akeley Gallery

An exhibition of color photographs by Giraud Foster and Norman Barker.

Foster and Barker, both scientific photographers, search for beauty in the fossil world. The resulting work offers surprising colors, unusual forms, and is often suggestive of non-objective art.

IMAGE: Ammonite from Morocco, magnified five times, seen here in black and white. This polished cross-section shows the ammonite's internal chambers and the minerals deposited within them.

RBAN FOREST WALKING OURS

ring Flowers and Trees in Central Park

ednesday, April 18 or Saturday, April 28
Wednesday, May 2
30-11:00 a.m.
ode: ED21307X
5 for each walk
ease note: Tour meets at the 72nd Street entral Park West entrance to the park.

ortheast Forest, Van Cortlandt Park

aturday April 21, 10:00 am-1:00 pm
ode: ED21308X

alisades National Natural Landmark, lpine, New Jersey

aturday, May 5
:00 am–1:00 p.m.
ode: ED21309x

entral Woodland, Pelham Bay Park

aturday May 12
:00 am–1:00 p.m.
ode: ED 21310x

Dawn Chorus Walk" in Central ark

unday, May 13
:00–7:30 am. See Birdsong in Nature nd Human Culture listing.

Whale Watch 2001

Friday through Sunday, May 18–20
$450 double occupancy; $525 single-room occupancy
Code: ED21301X

This varied three-day excursion to Provincetown, Massachusetts offers a visit to Connecticut's Mystic Aquarium en route, a birding or dune walk, and chartered cruises led by experts in identifying whales and sea birds. Also included are a guided walk through Massachusetts Audubon Society's Wellfleet Bay Wildlife Sanctuary and time to explore historic Provincetown or just comb the beach. Although whale sightings inevitably depend on the whales and cannot be guaranteed, the weekend always provides new experiences and fun. Limited to 51 people.

Fee includes transportation, two nights' lodging, meals, boat excursions, and admission to Mystic Aquarium and Audubon Wildlife Sanctuary. Museum educator and enthusiastic birder Jay Holmes, and Uta Gore, natural science instructor in the Department of Education, will lead this trip.

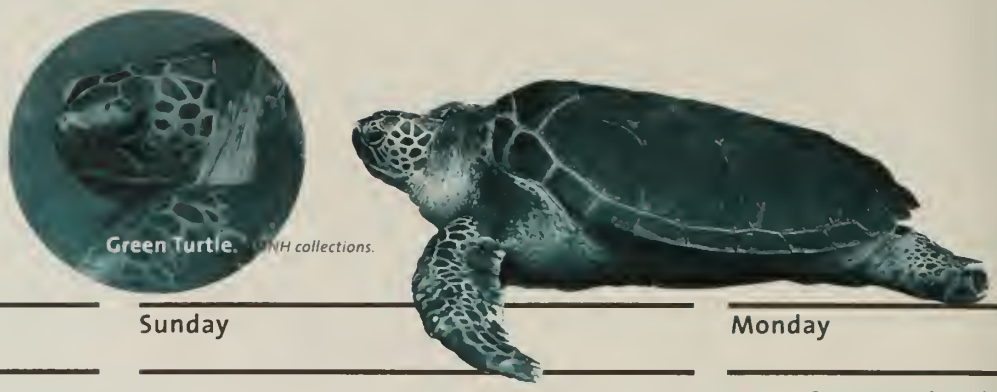
Birding in the Bashakill Marsh

Saturday, May 19
7:00 am–5:00 p.m.
Code: ED21313X
$50, Limited to 25 adults

Visit Bashakill Marsh in Sullivan County, one of the largest freshwater marshes in New York State and a beautiful home for a host of nesting species, including wood duck, osprey, bald eagle, woodpeckers and many others. Join Joseph DiCostanzo, researcher on the Great Gull Island Project at the Museum and president of the Linnaean Society of New York. The trip involves one or two miles of easy walking. Transportation is provided.

W a W t h 2 0 0 s h artered boat
Photograph Jay Homes.

april 2001



Green Turtle. AMNH collections.

Saturday	Sunday	Monday
Please see pages 10 and 11 for a complete listing of the Asian Pacific America: Mixing it Up series of weekend family programs and films.	**1**	**2** Supermassive Black Holes, Quasars, and the Galaxy Hosts *7:30 p.m., Hayden Planetarium*
7 Lecture: Alienation of Immigrant Peoples: The Indo-Guyanese Experience *3:15 p.m.*	**8** Lecture: Alienation of Immigrant Peoples: The Indo-Guyanese Experience *3:15 p.m.*	**9**
14	**15**	**16**
21 Urban Walking Tours: Northeast Forest, Van Cortlandt Park *10:00 a.m.-1:00 p.m.* Lecture: Cross-Cultural Alliances: A Political Must for Asian New Yorkers *3:00 p.m.* Wayang Kulit: Classical Shadow Puppet Theatre of Java *5:30-8:30 p.m.* *Kaufmann theater, first floor*	**22** Lecture: Cross-Cultural Alliances: A Political Must for Asian New Yorkers *3:00 pm*	**23** Atom: An Odyssey from the Big Bang to Life on Earth and Beyond *7:30 p.m., Hayden Planetarium*
28 Spring Flowers and Trees in Central Park *8:30-11:00 a.m.* Special Performance Stillness in Movement: Yi Mae Bang Performs Traditional Korean Dance *5:30-7:30 p.m.* *Kaufmann theater, first floor*	**29** Owls! *1:00 p.m., Linder Theater*	**30**

Current Exhibits

The Butterfly Conservatory: Tropical Butterflies Alive in Winter
October 7, 2000—May 28, 2001
Iceland, Land of the Vikings
Photography exhibition, Akeley Corridor Gallery
October 21, 2000—April 8, 2001

Tuesday	Wednesday	Thursday	Friday
3 Animal Drawing 7:00-9:00 p.m.	4 Conservaton Genetics in the Age of Genomics Spring Symposium April 4-6. Call 212-769-5200 for more information. Can Bitoechnology Save the World? *7:00 p.m., IMAX Theater*	5 Lecture: Dinosaur Imagery *7:00 p.m., Kaufmann Theater*	6 Starry Nights: Fridays Under the Sphere Jazz Performance *5:45–8:00 p.m.*
10 Animal Drawing *7:00-9:00 p.m.*	11 Workshop: Looking at Minerals *6:15 p.m.*	12	13 Starry Nights Fridays Under the Sphere Jazz Performance *5:45–8:00 p.m.*
17	18 Spring Flowers and Trees in Central Park *8:30-11:00 a.m.*	19 Thursday afternoon series: Along the Silk Road–*3:00-4:30 p.m.* Lecture Putting Species Back into Human Evolution *7:00 p.m. Kaufmann Theater*	20 Starry Nights Fridays Under the Sphere Jazz Performance *5:45–8:00 p.m.*
24	25	26 Thursday afternoon series: Ocean Life *3:00-4:30 p.m.*	27 Starry Nights: Fridays Under the Sphere Jazz Performance *5:45–8:00 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
Central Reservations	(212) 769-5200	*Website: http://www.amnh.org*	

program listings

Ocean Oasis

IMAX Schedule

Ocean Oasis

Sunday–Thursday:
10:30 a.m., 12:20 p.m., 2:10 p.m., 4:00 p.m.
Friday–Saturday:
10:30 a.m., 12:20 p.m., 2:10 p.m., 4:00 p.m., 5:50 p.m., 7:40 p.m.

Shackleton's Antarctic Adventure

Sunday–Thursday:
11:25 a.m., 1:15 p.m., 3:05 p.m., 4:55 p.m.
Friday–Saturday:
11:25 a.m., 1:15 p.m., 3:05 p.m., 4:55 p.m., 6:45 p.m.

Schedule and prices are subject to change without notice.
Please contact 212- 769–5200 for up-to-date information.

Photo: Fred Plan, Bubblehead by Julie Cho

DEPARTMENT OF EDUCATION PRESENTS

Asian Pacific America: Mixing it Up

April 2001
In recognition of Asian Pacific American heritage, the Museum presents films, lectures and performances that voice perspectives on mixed heritage, collapsing the myth of the monolithic Asian Pacific American identity.

Weekend Family Programs

Progams meet in the Leonhardt People Center. Films are shown in Kaufmann Theater. This series of programs also features the Halls of Pacific and Asian Peoples, Charles A. Dana Education Wing, 2nd floor.

March 26 to April 22
Art Exhibit on: Two People: Man and Woman
Charles A. Dana Education Wing, second floor
April 7 to April 29
Art Installation: Peeling Layers
Open Weekends 1:00-5:00 p.m.
Leonhardt People Center, second floor

Friday, April 6 only
Special Program
Reading: A Box within a Box. Multiple Heritages in Spoken Word
Linder Theater, first floor
7:00- 8:30 p.m.

Saturday and Sunday, April 7 & 8
Leonhardt People Center
Performance: Women of the Mahabharata
1:00 and 4:00 p.m.

Film: *Seven Hours to Burn*
Shanti Thakur, Filmmaker, 1999, 9 min.
2:00 p.m. The filmaker will be present for the screening of the film.

Film: *None of the Above*
Erika Surat Anderson, Director, 1994, 23 min.
2:20 pm

Film: *Turbans*
Erika Andersen, Filmmaker, Carol Ruiz and Erika Andersen, Producers, 1999, 30 min.
2:45 p.m.

Lecture: Alienation of Immigrant Peoples: The Indo-Guyanese Experience
3:15 p.m.

Saturday and Sunday, April 21 & 22
Leonhardt People Center
Performance: Kate's Chink-o-rama, featuring the Chink-o-rama dancers
1:00 p.m. and 3:45 p.m.

Film Shorts: Dispelling the Delusion
2:00-3:00 p.m.

Film: *Bubblehead*
Julie Cho, Filmmaker Judy Soohoo and Julie Cho, Producers, 1999,17 min.
2:00 p.m.

Film: *Lady Jane*
Ruby Flores, Director, 1999, 3 min.
2:20 p.m.

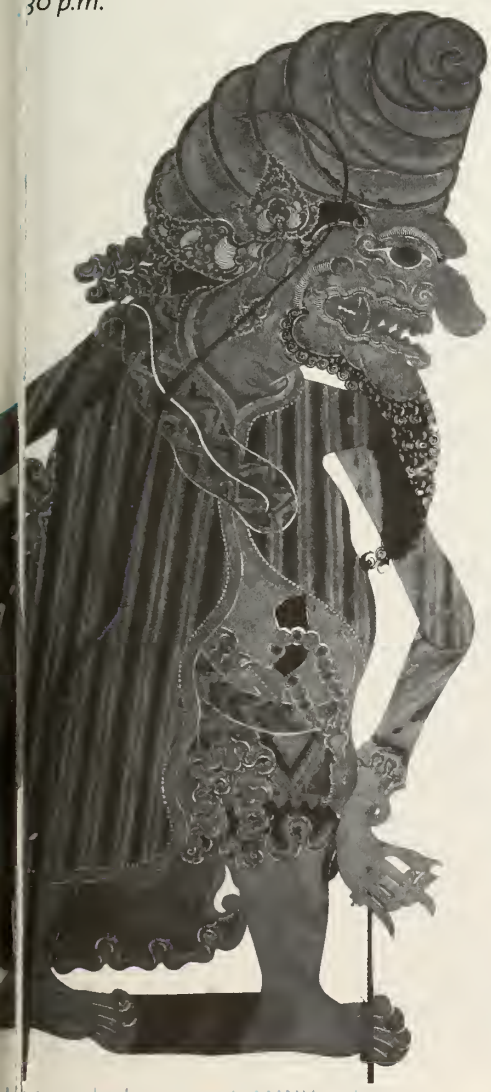
Animation: *Pink Palace Series*
2:30 p.m.
Jessica Hagedorn, Writer/ Co-Director and John Woo, Co-Director/Producer, 2000, 24 min.

Lecture: Cross Cultural Alliances: A Political Must for Asian New Yorkers
3:00 p.m.

turday & Sunday, April 28 & 29
onhardt People Center
deo: *Paradise Bent*
eather Croall, Filmmaker, 1999, Samoa,
min.
o p.m.

m Shorts: Exiting the Cultural Maze
30-4:30 p.m.

m: *A Son for Sensei*
Rhee Ahn, Filmmaker and Karen
verns, Producer, 1999, 20 min.
30 p.m.



Japanese shadow puppet AMNH archives

Film: *Miami Strips, Hollywood Dream*
Lee Chatametikool, Producer/Director, 1999, 28 min.
4:00 p.m.

Special Workshops: The Cultural Renaissance of Hawaii

Hawaiian artists, Kilohana and Katherine Lehua Domingo, will share their art through workshops and demonstrations.

Saturday, April 28 only
Making Fresh Haku (flower) Leis
11:00 am to 1:00 p.m.
Code: ED01241M
Registration required. (Limited to 15 people ages 12 to adult)
Materials fee of $10.

Sunday, April 29 only
Making Lauhala (leaves from the Lauhala tree) Bracelets
11:00 am to 1:00 p.m.
Program Code: ED01242M
Registration required. (Limited to 15 people ages 12 to adult)
Materials fee of $10.

A Basic Introduction to Hawaiian Language
4:00 to 5:00 p.m.
Calder Lab, second floor
Code: ED01243M
Registration required. (Limited to 25 people ages 10 to adult)

Saturday & Sunday, April 28 & 29
Hall Lecture: The Hawaiian Art of Making Feather Leis
Hall of Pacific Peoples
2:00 p.m.

Hall Lecture: The Hawaiian Art of Weaving Lauhala Hats
Hall of Pacific Peoples
3:00 p.m.

Hall Lecture: Traditional Lifestyle in Korea
A journey back to the Choson Dynasty
Hall of Asian Peoples, second floor
4:30-5:00 p.m.

Special Performances

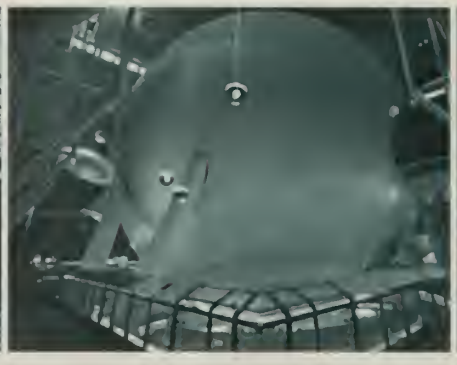
Saturday, April 21 only
Wayang Kulit: Classical Shadow Puppet Theatre of Java
Kaufmann theater, first floor
5:30 to 8:30 p.m.
Indonesian master puppeteer, Ki Dalang Tristuti Rachmadi Suryosaputro, narrates stories from the Mahabarata, accompanied by The New York Indonesian Consulate Gamelan.

Saturday, April 28 only
Stillness in Movement: Yi Mae Bang Performs Traditional Korean Dance
Kaufmann Theater, first floor
5:30-7:30 p.m.
Legendary Korean dancer, Yi Mae Bang, makes his United States debut. The program will feature dances from the folk tradition with both Buddhist and Shamanic influences.

All programs are free with suggested Museum admission. Registration is required for all the workshops. To register, call the Museum's Central Reservations Department at 212-769-5200

The American Museum of Natural History wishes to thank the May and Samuel Rudin Family Foundation, Inc., the Tolan Family, and the family of Frederick H. Leonhardt for their support of these programs.

program listings



HAYDEN PLANETARIUM PRESENTS

Frontiers in Astrophysics

In conjunction with the Museum's Department of Astrophysics, the Hayden Planetarium is pleased to bring to our audience the latest advances in our knowledge of the Universe, presented by the astronomers and astrophysicists working at the cutting edge of the field. Lectures takes place in the Hayden Planetarium Space Theater. At the end of each lecture, a short sky show will be presented using the Planetarium's Zeiss Mark IX star projector. Bring your binoculars!

Supermassive Black Holes, Quasars, and their Galaxy Hosts

Richard Green, Director of Kitt Peak National Observatory
April 2, 7:30 p.m.
Code: HP402L
$10 ($8 Members, students, seniors)

Does every galaxy contain a supermassive black hole at its center? The latest research suggests this may indeed be the case. Green is one of the world's leading experts in the search for black holes in nearby galaxies. He will speak about cutting-edge work on the subject, and surprising results that may change our entire understanding of how galaxies form and age–our own Milky Way Galaxy may have once been a super-powerful quasar!

The Multiwavelength Universe

Dr. Alyssa Goodman, professor of astronomy at Harvard University
May 14, 7:30 p.m.
Code:HP403L
$10 ($8 Members, students, seniors)

Our eyes perceive only a tiny part of the light that streaks through space. Astronomers use light of all kinds–gamma rays, X-rays, ultraviolet and infrared light, microwaves and radio waves–to probe cosmic phenomena. In so doing, they reveal far more about the Universe than the eye can see. Dr. Good-man tells us of the many windows into the cosmos, and how we combine what we learn from all of them to tackle some of the most difficult puzzles of modern astrophysics.

Distinguished Authors in Astronomy

The Distinguished Authors series of lectures takes place in the Hayden Planetarium Space Theater. Authors will sign books after each lecture and a short sky show will be presented using the Planetarium's Zeiss Mark IX star projector. Bring your binoculars!

Atom: An Odyssey from the Big Bang to Life on Earth and Beyond

Dr. Lawrence Krauss, professor of physics at Case Western Reserve University
April 23, 7:30 p.m.
Code: HP413L
$10 ($8 Members, students, seniors)

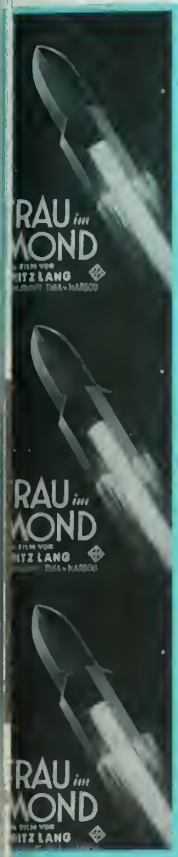
How has the Universe aged and evolved since the Big Bang, and how will it all end? Dr. Krauss tells this story from a remarkable perspective–following the existence of a single atom, the fundamental building block of matter, from the beginning of the Universe to the end. Along the way, this wandering particle finds itself on our planet, participating in the mysterious phenomenon we call life.

Time Travel in Einstein's Universe

Dr. J. Richard Gott, professor of astronomy at Princeton University
May 21, 7:30 p.m.
Code: HP414L
$10 ($8 Members, students, seniors)

Time travel in Newton's Universe was inconceivable, but in Einstein's Universe it becomes a real possibility. Indeed, time travel may be important in understanding the Big Bang itself - a time loop may allow our Universe to be its own mother! Dr. Gott, widely regarded as one of the most creative thinkers in the field of theoretical cosmology, explores the fascinating and often surprising interplay of space and time.

Please call Central Reservations at 212-769-5200 to register for all Hayden Planetarium programs.



MARGARET MEAD FILM & VIDEO FESTIVAL PRESENTS

Rockets in Sprockets: Multimedia Explorations of Space
A series of monthly events from February to June 2001 celebrating the first anniversary of the Rose Center for Earth and Space.

The Woman in the Moon
Fritz Lang (1929)

Monday, April 23, 7:00–9:00 p.m.
Kaufmann Theater
Code: EDMM03
Free
Live vocal and instrumental accompaniment by Christine Baczewska.

In Lang's last silent film an expedition to the Moon to search for gold sets the stage for psychological drama and intrigue and conveys the human fascination with the unknown.

The program is free, but reservations are recommended; please call 212-769-5200 and refer to the program code. Please use the 77th Street entrance.

SPRING BREAK AT THE MUSEUM FOOD COURT

In April Restaurant Associates members who purchase $5.00 or more from our Antipasto Salad Bar may have any beverage of their choice free (a $1.25 to $3.25 value).

Our Antipasto Salad Bar items include Caesar Salad, Marinated Cucumber Salad, Mozzarella and Tomato Salad, Roasted Fennel with Peaches and more.

Beverages include Espresso, Cappuccino, Latte, Hot Chocolate, Coffee, Tea or Fountain Soda.

As always, Members receive a 15% discount at the Museum Food Court, Café on 4 and Café 77. To obtain the discount, simply present your Membership card at the start of your transaction.

AMERICAN MUSEUM OF NATURAL HISTORY

DYNAMITE DINOSAURS!

Dinosaurs are so popular at our Museum, and these ceramic pieces will serve up fun to kids of all ages. Each piece features a dinosaur, based on the Dinosaur Halls at the American Museum of Natural History. Hand painted Dolomite. Microwave and dishwasher safe.

Cookie Jar $20.00.
Coin Bank $15.00.
12 oz. Mug $6.50 each.
Cookie Plate $10.00.

CENTRAL PARK WEST AT 79TH STREET
TO ORDER: (212) 769-5150 OR
SHOP ONLINE: WWW.AMNH.ORG

museum notes

photo Jimmy Katz

Dave Valentin

Friday Jazz

Starry Nights: Fridays Under the Sphere, a weekly series of live jazz at the Rose Center for Earth and Space continues in April with performances by the Dave Valentin Quartet.

Grammy award-nominated flutist Dave Valentin is one of the most in-demand musicians in Latin jazz. His style ranges from sultry samba to fiery Afro-Caribbean jazz to bebop. Known for his creativity and versatility, Valentin consistently invents new sounds using flutes from around the world. In addition to leading his own group, Valentin has had some notable stints as a sideman. For many years he served as Tito Puente's musical director and has performed with McCoy Tyner, Dizzy Gillespie, Machito, Celia Cruz, and others.

"Valentin gets an astonishing array of sounds from his flute while always retaining precision and clarity of tone. His musical flights combine breathtaking speed and technique with evocations of lost continents and timeless realities." –JazzTimes

The Dave Valentin Quartet will play one-hour sets at 5:45 p.m. and 7:15p.m. The music is free with suggested Museum admission. Cash bar and tapas are available. Call 212-769-5100 for more information.

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.

Rose Center

April 2,3,9,10,16,17,23,30 at 2:45 p.m.
April 24 at 12:45 p.m.
An introduction to the Rose Center, discoveries in astrophysics and future explorations.

Hall of Planet Earth

April 3, 17, 27; at 11:45 a.m.
An introduction to the wonders of our dynamic planet.

The Magic World of Minerals and Gems

April 6 at 12:45 p.m.
The world of gems and minerals and the myths surrounding them.

Dragons

April 1 at 1:45 p.m.
Dragons of fact and fantasy.

Extinction is Forever

April 14 at 12:45 p.m.
Examine the causes of extinction, and the international cooperation needed to preserve the "web of life" for future generations.

Sky Hunters

April 28 at 12:45 p.m.
Learn the difference between the birds of prey and the scavengers, many of which are endangered.

Biodiversity

April 13 at 12:45 p.m.
Experience the beauty of variation in the living world.

Diaries from Fossil Land

April 6 at 4:45 p.m.
Highlights and a few surprises in the 4th floor Fossil Halls.

Foreign Language Tours

Deutsche Fuhrung
April 3, 10, 17, 24 at 11 a.m.
Museum Highlights tour in German.

Visita del Museo
April 5, 12, 19 and 26 at 11 a.m.
Museum Highlights tour in Italian.

Fossil Explainers

Monday–Thursday, 1:00–5:00 p.m.
Friday, 1:00–8:00 p.m
Saturday, 10:00 a.m.–8:00 p.m.
Sunday, 10:00 a.m.–5:00 p.m.
Trained Fossil Explainers (identified by a red button) are available to answer questions about fossils and paleontology.

Earth and Space Explainers

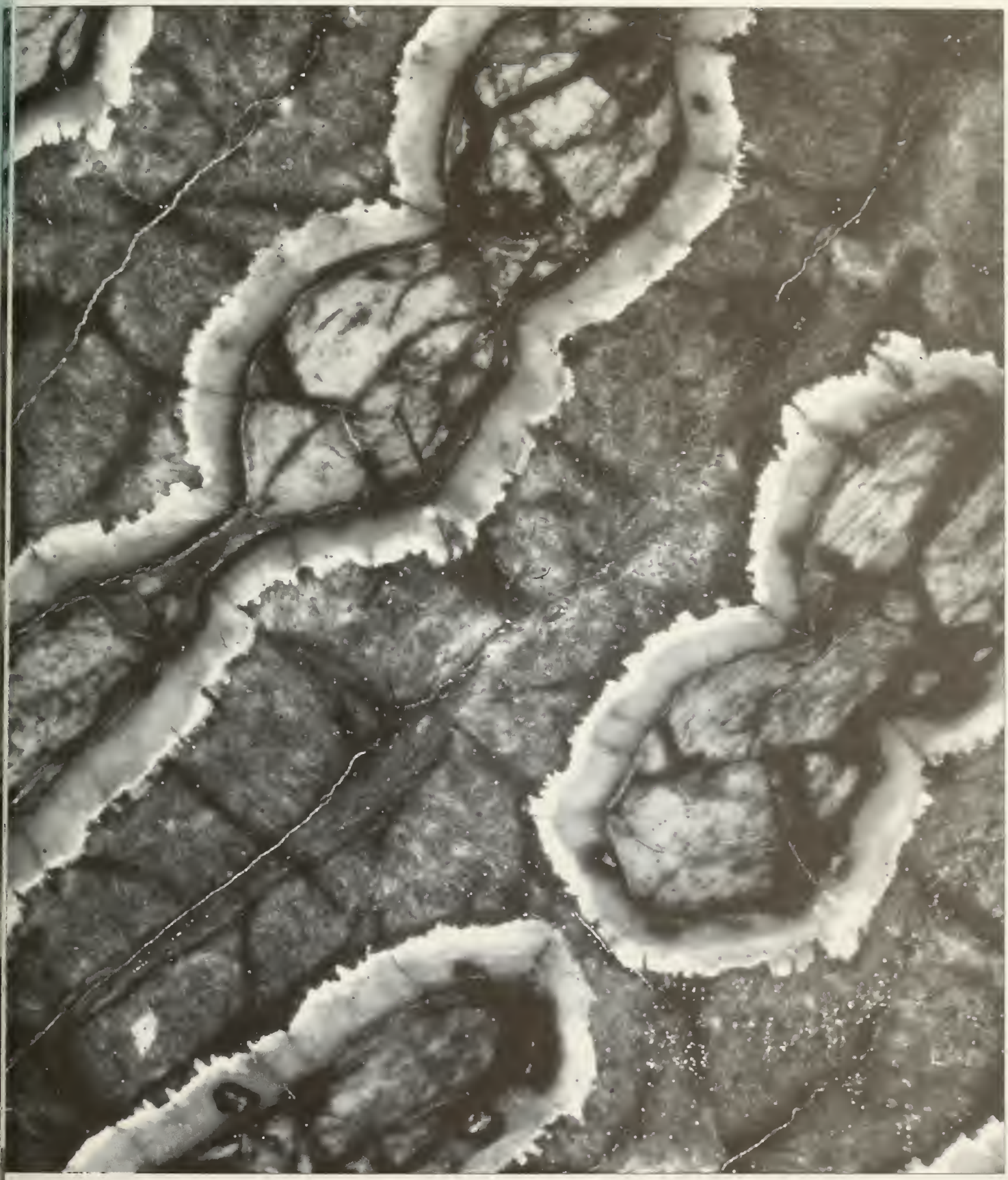
Monday – Friday, 1:00 – 5:00 p.m.
Earth and Space Explainers (identified by a purple button) are trained to answer questions about astronomy and geology.

Birthday Parties at the Museum

Linda Kaye's *Birthdaybakers, Partymakers* bring their winning combination of education and entertainment to AMNH with five exciting ways to transform your child's birthday into an unforgettable event. Choose from Cosmic Blast-Off, Safari Adventure, Global Mysteries, 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.



OVE: Photograph of a gomphothere tooth from the Miocene period magnified 10 times © Giraud Foster and Norman Barker. produced here in black and white. Extinct relatives of modern elephants, and usually smaller, gomphotheres had an elongated wer jaw and shovel-shaped tusks. Part of the crown, or exposed part, of a gomphothere tooth appears here.

is image will be part of the photography exhibition, *Ancient Microworlds*. Please see page 7 for further information. The exhibition made possible by the generosity of the Arthur Ross Foundation.

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.

Membership Department,
Central Park West @ 79th Street
New York New York 10024-5192
www amnh org

AMERICAN MUSEUM OF NATURAL HISTORY

Central Reservation Coup

Program Name/Date # Memb

Rotunda.
American Museum of Natural History
Received on: 03-30-01

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.

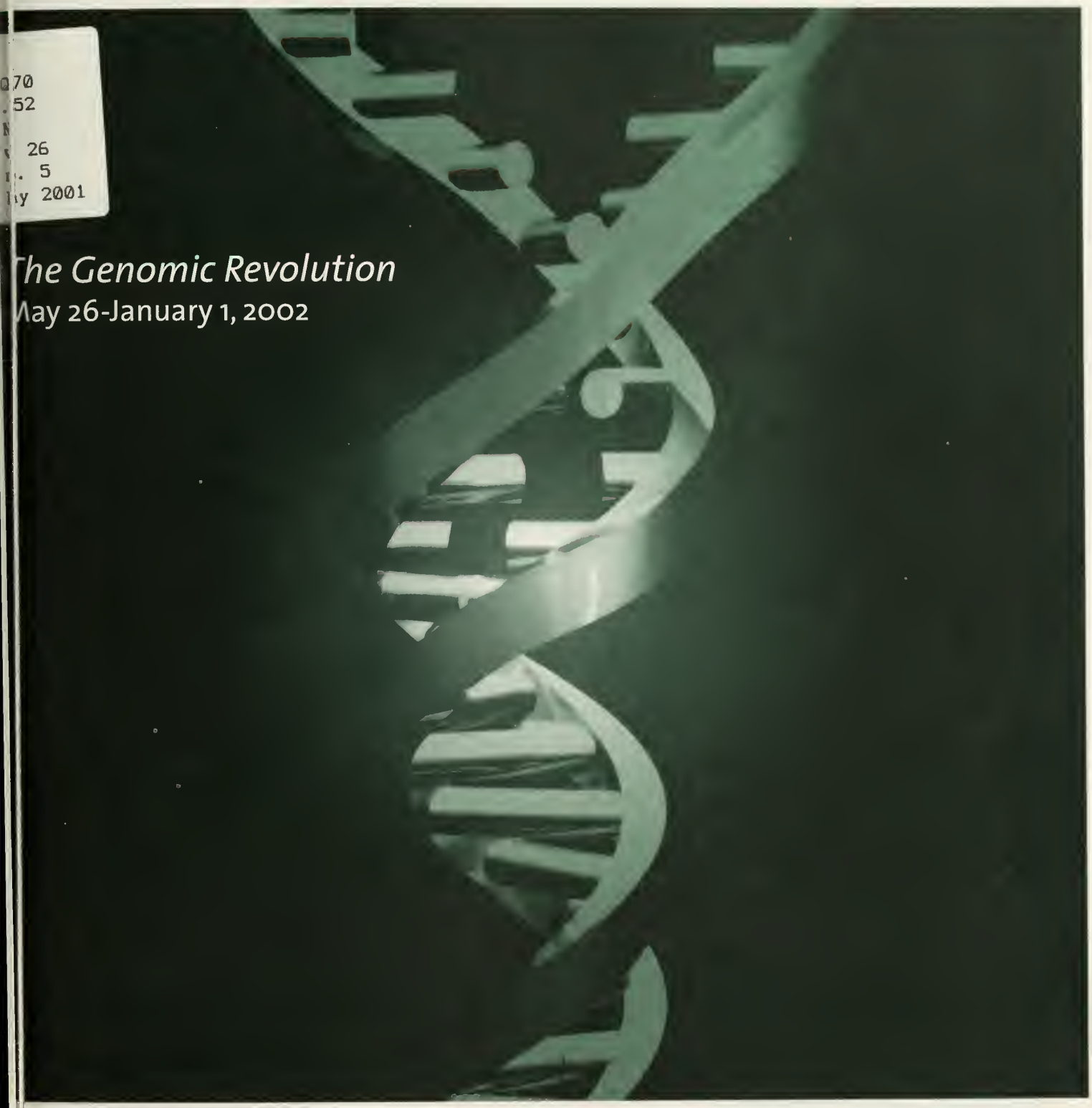
Visitors attending programs after hours can enter the building through the security entrance at 79th Street and Central Park West, down the driveway. Tickets can be picked up or purchased at the ticket desk just inside the entry.

rotunda

VOL. 26 No. 5 May 2001

Members' Newsletter

Q70
.52
N
26
. 5
ay 2001



The Genomic Revolution

May 26-January 1, 2002

American Museum of Natural History

The Genomic Revolution

May 26, 2001, through January 1, 2002

The Genomic Revolution examines the extraordinary developments taking place in this key field of molecular biology and explores its impact on modern science and technology, natural history, biodiversity, and our everyday lives. Through a range of cutting-edge exhibitry that includes hands-on models, interactive stations, videos, films, polling stations, and artwork specially commissioned by the Museum, this landmark exhibition brings an exceptionally multifaceted and intricate subject to life by immersing visitors in the many aspects of genomic research from both a scientific, technological viewpoint and a socioethical perspective.

The Genomic Revolution focuses on understanding genomes (the genetic material in the chromosomes of an organism) and genetics (the scientific study of heredity); the historical development of the science of genetics and genomics (the study of genes and their functions); the development of genetic and genomic technology; and the Human Genome Project's social, cultural, legal, and medical impact on life on Earth. Reflecting the most current thinking in this scientific field, the exhibition continues the Museum's long-standing tradition of educating the public about scientific breakthroughs, including health issues, enabling people to make informed decisions about topics crucial both to their lives and to all life on our planet.

Members' Preview

You are cordially invited to join us for a Members' Preview of *The Genomic Revolution* on Thursday, May 24, 2001, from 6.00-8:30 p.m

Kindly rsvp, acceptances only, to the Membership Office at (212) 769-5606

For more than a century, the Museum has been a leader in examining the diverse species that represent the critical branches in phylogeny, a pattern of relationships often depicted as a "tree of life," and in studying patterns of evolutionary change over the past 3.5 billion years. The Museum is in a unique position to gather and synthesize data and to provide broad interpretations, leading the way into a new era of scientific research known as comparative genomics. With millions of species organized into major biological groups, scientists will be able to compare the genomes of humans and a few other well-studied organisms with large sectors of the genomes of a much greater range of species. This more comprehensive sampling of organisms will help us better understand the history of life on Earth. In 1990, with the emergence of the exciting new field of comparative molecular biology, the Museum established its Molecular Program, one of the first such museum-based programs in the world. Currently 40 of the Museum's scientific staff of more than 200 are conducting a broad range of research on genetics and genomics. *The Genomic Revolution* is one of a host of programs developed by the Museum in order to carry out its continuing mission to provide the public with balanced, accurate, and objective information on science.

Key Features of the Exhibition:
The Genomic Revolution is divided into the following eight sections:

The Genomic Age introduces visitors to genomics, beginning with the mapping of the human genome, and traces the development of the Human Genome Project.

Our Genetic Identity explores the genetic similarities among different humans and between humans and other species, revealing how these similarities reflect our heredity and our closeness in evolutionary history. For example, humans share 98% of their genes with chimpanzees, 90% with mice, 21% with worms, and 7% with a simple bacteria such as *E. coli*.

Our Genome: The Map for the New Medicine examines the ways in which our medical treatments will change, and are already being changed, now that the entire human genome has been sequenced.

Choosing Our Genes focuses on the potential to modify our genomes through genetic enhancement. There are many implications underlying genetic enhancement, which are explored in several exhibits in this section.

Genetically modified vs. regular cot
Image courtesy

anging Our Genes examines the any facets of gene therapy: what it is, w it works, and what some of its rious ethical issues are. Exhibits in is section include a video case study heart disease (angina) gene therapy; animation on how gene therapy is rried out at a cellular level; and the cond of three polling stations, at nich visitors may answer a series questions about choosing and anging genes.

shaping Our World explores the plications of genetically modified ganisms and cloning. People have en selectively breeding and modifying imals and plants for more than ten ousand years, but new technology w allows very precise—and fast—odifications of the genome in these ganisms. The pros and cons of genetic odification are discussed in a video in is section, which also features exames of cloning and a video on how oning is produced at a cellular level.

e Learning Lab is a hands-on working boratory set up in the exhibition, with useum laboratory instructors and plainers on hand to help visitors try t a variety of procedures designed show the technologies of DNA extracon, PCR (polymerase chain reaction, a chnique used to replicate DNA), DNA quencing, and databasing.

ur Genes and Our Future focuses on the ajor issues emerging from these new discoveries in genomics: Who should have access to information about the make-up of a person's genes? Who should have ownership of genes? Who should have control over genes? How will our ability to alter the very code of life affect our future and our compatibility with the natural world around us?

A "virtual" tour of *The Genomic Revolution* is under development and will be launched on the Museum's Web site, www.amnh.org, in conjunction with the opening of the exhibition on May 26.

The Genomic Revolution *is supported by a grant from the Richard Lounsbery Foundation. Major funding has also been provided by the Lila Wallace-Reader's Digest Endowment Fund.*

Support for educational programming for the exhibition has been provided by the Lita Annenberg Hazen Foundation.

ALSO IN THIS ISSUE:

PROGRAMS RELATED TO *THE GENOMIC REVOLUTION*...pages 4 and 5

REOPENING OF THE MARGARET MEAD HALL OF PACIFIC PEOPLES...page 5

MEMBERS' PREVIEW OF THE DISCOVERY ROOM...page 11

NEW IMAX FILM...page 15

ABOVE Five 7 month old cloned [illegible] from left, Lily Daffodil Crocus Forsythia [illegible] Rose—appear on a farm in Iowa in the recent photo *Image courtesy of Advanced Cell Technologies.*

COVER Computer model of a DNA double helix *Computer model, Min Hyung Lee.*

NEW BENEFIT FOR AMNH MEMBERS

Special evening rate for Members in the Museum parking garage

Effective May 1, 2001, Members will be able to park between the hours of 4:00 p.m. and midnight for the rate of $10 for the evening. The three-story indoor parking garage may be entered from West 81st Street.

You must present your AMNH membership card to obtain this special Member discount.

rotunda

ISSN 0194 6110
Vol 26 No 5 May 2001

Mark Shoffner *Editor*
Sandi Frank, *Copy Editor*
Rosemary Cauck, *Director of Members[illegible]*
Lynn DeBow, *Vice President for Development and Membership*
Ellen V Futter *President*
Lewis W Bernard *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 at 79th Street, New York, NY 10024 5192 Telephone [illegible] 5606. Web address: www.amnh.org. Museum membership of $45 per year and up includes subscription to *Rotunda*. ©2001 American Museum of Natural History. Periodical postage paid at Rutherford NJ and additional mailing offices. Postmaster Please send address changes to *Rotunda* Membership Office AMNH at the above address. Printed in the USA

The Genomic Revolution: program listings

DEPARTMENT OF EDUCATION PRESENTS...

Genomic Laboratory Workshops

These hands-on, adult-level introductory workshops require no background in science. Held in the special sequencing laboratory in *The Genomic Revolution*, they include a brief talk followed by instruction in the methods, techniques, and procedures for DNA sequencing. Topics include the biochemistry of the genome, DNA modeling, gene function and databases, and how to map the genome. Limited to 25 persons per workshop. Workshops are $60.

Wednesday, June 13
7:00-9:00 p.m.
Code: ED213019X

Saturday, June 9
9:00-11:00 a.m.
Code: ED213020X

Saturday, June 16
9:00-11:00 a.m.
Code: ED213021X

Science of the Genome

Three Tuesdays, June 5, 12 and 19
7:00-8:30 p.m.
$25 for series ($22.50 Members, students, senior citizens); $12 each ($10 Members, students, senior citizens)
Code: ED21207L
This three-part series, organized by the Museum's Molecular Program and the Education Department, explores the revolutionary impact of genomic research on natural history and biodiversity. For additional information, call (212) 769-5176.

Image Mary Gibbs (GNN).

June 5
Evolution and Genomics
Rob DeSalle, curator in the Division of Invertebrate Zoology and Curator of the special exhibition, *The Genomic Revolution*.

June 12
Natural History of the Genome: The Role of Genes in Nature, Extinction, Mutations, and Status
Niles Eldredge, curator in the Division of Paleontology at the Museum.

June 19
Genetic Diversity and Native American–First Nations Cultural Issues
Linda Burhansstipanov, Executive Director, Native American Cancer Research, Corp.

FILMS AND PANEL DISCUSSIONS

Film: *The Secret Adventures of Tom Thumb*. Dave Borthwick. 1993. 61 min. Video.
Saturday, May 26, 5:00-6:15 p.m.
Kaufmann Theater
Code: DNA01
This post-industrial allegory recasts the story of Tom Thumb in the Age of Genomics. The film, stunningly rendered through claymation and pixilation, is an adventure filled with discovery, tragedy, and friendship. (Contains graphic images and adult themes. Not recommended for children.)

The Black Stork: Motion Pictures and Eugenic Euthanasia in Early 20th Century America

Wednesday, May 30
6:30-8:30 p.m.
Kaufmann Theater
Code: DNA02
Chicago surgeon Harry Haiselden starred in the 1916 feature film *The Black Stork*, which was used as part of his crusade to eliminate the "unfit" and was based on his actual cases. Martin Pernick, Associate Director for History and Medicine at the University of Michigan, presents an edited version of the film and will explore how mass culture and medical science intersected to shape early twentieth century definitions of "eugenics," "heredity," and "disability," how eugenics and euthanasia converged in early twentieth century America, and finally how modern genetic medicine compares to the eugenics movement of the past.

Quest for Identity: Dr. Tudor Parfitt and the Lost Tribes of Israel

Film: *The Lost Tribes of Israel*. Chris Hale and David Espar. 2000. 60 min. Video (UK/Africa/Middle East)
Wednesday, June 6, 6:30-8:30 p.m.
Kaufmann Theater
Code: DNA03
This film follows University of London professor Tudor Parfitt as he attempts to trace the roots of the Lemba across Africa and into the Middle East using DNA . Discussion and book-signing with Parfitt will follow the film. Tudor Parfitt is the author of *Journey to the Vanished City: The Search for a Lost Tribe of Israel*.

Dolly the sheep, the world's first cloned mammal. *Photo Jahn Chadwick, Edinburgh.*

enomic Research and Its npact on Indigenous eoples–a two-part program

lm: *Gene Hunters*
n Taylor. 1994. 50 min. Video.
J.S./Panama/Colombia)
ıturday, June 9, 2:00 p.m.
ıufmann Theater
ogram Code: DNA04
ıe Human Genome Diversity Project ıllects DNA material from isolated ɔpulations around the world. Voices om many sides of the debate, including eneticists, ethicists, and indigenous tivists, reveal the controversy ırrounding this scientific pursuit.

ınel Discussion
ıturday, June 9, 3:00pm
ıufmann Theater
ting examples from their own ɔmmunities and international trends, anelists address the historic, scientific, gal and ethical implications of contro-ersial scientific initiatives, such as uman genome research and biotech-ology, on indigenous communities.

anel Discussion: Science for rt's Sake

/ednesday, June 13
00-9:00 p.m.
nder Theater
ode: DNA05
/hat happens when science and art tersect? Artists Justine Cooper, Natalie remijenko, and Gary Schneider—along ith Dr. Dorothy Warburton, Professor of enetics and Development at Columbia niversity—discuss some of the con-epts, breakthroughs, and controversies f the biotechnology revolution as it lates to their work. Moderated by athy Brew, Director of Thundergulch, ıe new media arts initiative. Co-resented with Thundergulch.

oto of a DNA light sculpture by artist stine Cooper *Phota Mark Malijamion.*

How Green Are Our Valleys: Biotechnology Meets Traditional Agriculture

Film: Amrit Beeja. Meera Dewan. 1996. 43 min. 16mm. (India)
Wednesday, June 20
6:30-8:30 p.m.
Kaufmann Theater
Program Code: DNA06
Combining music, poetry, and humor, this film celebrates women's traditional agricultural practice in India, juxtaposed against multinational agribusiness.

Followed by a roundtable discussion with Anuradha Mittal, Co-Director of the Institute for Food and Development Policy, and Alan McHughen, author of Pandora's Picnic Basket: The Potential and Hazards of Genetically Modified Foods; moderated by Rebecca Goldburg, Director of the Environmental Defense Fund's Biotechnology Program.

The Promise and Perils of the Genomic Revolution

Film: *After Darwin*. Martin Lavut. 2000. 52 min. Video. (Canada)
Wednesday, June 27
6:30-8:30 p.m.
Kaufmann Theater
Code: DNA07
Through archival footage, personal stories, and interviews with scientists, ethicists, and sociologists, this piece explores the possibilities offered by genetic technologies, and the moral and ethical dilemmas they pose.
Followed by a roundtable discussion.

Films and discussions are free. Times are subject to change. Please call (212) 769-5200 for the latest information and to make a reservation (recommended).

For events in the Kaufmann and Linder Theaters, please use the 77th Street entrance, between Central Park West and Columbus Avenue.

Papuan Gable Mask, New Guinea, on display in the Hall of Pacific Peoples. *AMNH speicol collectians.*

Margaret Mead Hall of Pacific Peoples

The Margaret Mead Hall of Pacific Peoples, closed to the public for a number of years, reopened on March 17 with a new entryway and several new exhibit cases.

This year is the centenary of Margaret Mead's birth, and the reopening of the hall is one of a series of events that are planned to honor Mead's lasting contribution to the Museum, to anthropology, and to public awareness of the importance of culture in shaping human behavior.

The Margaret Mead Hall of Pacific Peoples first opened in 1971 and was later moved and reinstalled.

The present hall preserves Mead's vision of the Pacific, and includes objects collected on her many field trips to Bali, Samoa, and other parts of the region. The new entryway includes Mead memorabilia as well as a new photographic installation showing people of the Pacific today.

members' programs

TO REGISTER FOR ALL MEMBERS' PROGRAMS PLEASE CALL CENTRAL RESERVATIONS AT (212) 769-5200.

MEMBERS' LECTURES

Dragonhunter: The Life of Explorer Roy Chapman Andrews

Monday, June 4
7:00 p.m.

Roy Chapman Andrews captivated the public's imagination by leading the most celebrated fossil-hunting expeditions of the twentieth century. These journeys were all the more remarkable considering Andrews' humble beginnings: born in Beloit, Wisconsin in 1884, Andrews ventured east at the age of 22 and got a job sweeping floors at the American Museum of Natural History in 1906. He rose quickly through the ranks of the Museum, eventually becoming Director in 1936. It was his expeditions to Central Asia, however, that earned him international recognition.

Between 1922 and 1930, Andrews organized five expeditions into one of the world's least known regions—the Gobi Desert of Outer and Inner Mongolia. Using automobiles and camel caravans, Andrews and his team unearthed and transported a treasure trove of dinosaur and extinct mammal fossils. Andrews' journeys were also fraught with danger. He and his band of "heavily armed" scientists braved everything from raging sandstorms and murderous bandits to civil wars and political intrigue.

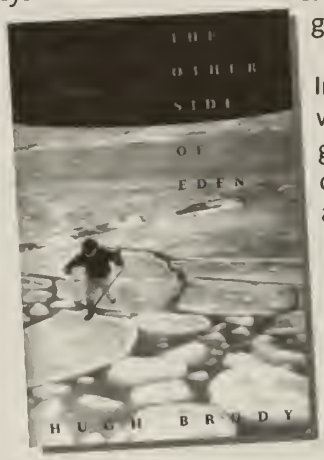
Join writer and archaeologist Charles Gallenkamp for a look at this extraordinary life. Gallenkamp is the author of *Maya: The Riddle and Rediscovery of a Lost Civilization*. *Dragonhunter* is his latest book.

Kaufmann Theater
Cost: $10 Members, $12 Non-Members
Code: MM6-1

The Other Side of Eden

Wednesday, June 20
7:00 p.m.

Anthropologist, author, and documentary filmmaker Hugh Brody first encountered hunting peoples over 30 years ago, when he was introduced to the Inuit of the Canadian Arctic. He has spent the last three decades living with and learning from hunter-gatherers.



In this lecture, Brody will explore the hunter-gatherers' constant challenge to find, use, and sustain the land's natural resources. Brody will also discuss the philosophical challenges that hunter-gatherer cultures pose in a world of mostly agricultural societies.

Brody followed a degree in philosophy from Oxford with study of hunter-gatherer peoples all over the world. He is the author of six books, including *The Other Side of Eden*.

Linder Theater
Cost: $10 Members, $12 Non-Members
Code: MM6-2

Books will be available for purchase and signing following the lectures.

MEMBERS' EXPEDITIONS

Members' Fishing Trip

Saturday, June 23
9:00 a.m–4:00 p.m.

The time has come once again to reel in fish, facts, and fun on the annual Members' fishing trip. Don Riepe of the National Park Service and the Littoral Society will teach us about the marine life and ecology of the area as we cruise the waters of Jamaica Bay. Our privately chartered 90-foot super-cruiser sails from Sheepshead Bay, Brooklyn. We will supply everything you need to enjoy the day (rods, reels, bait). Expert fishing instructors will be on hand to assist those who have no prior fishing experience.

This special Members-only expedition promises to be a fun-filled educational adventure. A detailed itinerary will be mailed to registered participants. Optional round-trip bus service is available from the Museum to Sheepshead Bay.

Code: MM6-4A Cost: $82, includes round-trip bus transportation between the Museum and Sheepshead Bay.

Code: MM6-4B Cost: $62, provide your own transportation and meet us at Pier 6, Sheepshead Bay.

Walking Tour of Chinatown

Thursday, June 28
1:00 p.m.

Join Sinologist Ed Morris and explore the influence of the concept of the Tao, the way of nature, in Chinese culture. This religious reverence for working with the grain of the natural environment has had a profound effect on the evolution of Chinese art, medicine, cuisine, technology, and customs. We will follow this "natural history" in Chinatown, where apothecary shops, restaurant suppliers, tea shops, temples, and art supply houses provide wonderful examples of this millennial interaction between people and their environment.

Morris is the author of *Gardens of China: History, Art, and Meanings*. He teaches the history of Chinese botanical medicine at The New York Botanical Garden.

Cost: $25 Members, $30 Non-Members
Code: MM6-5

Roy Chapman Andrews in Mongolia. AMNH collections.

om Menohhunnet to Manhattan: n Archaeological Journey Through wer Manhattan

turday, June 30
:00 a.m. and 2:00 p.m.

low the pavement of modern downwn Manhattan lies evidence of earlier iman settlements. Susan Dublin, rmerly of the Museum's Division of ithropology, leads this exploration to cheological sites both historic and ehistoric. Learn what archaeologists ive discovered about the settlements of rlier days. We'll hear about the Native nerican occupation of the island, visit e site of the seventeenth century Dutch ate House and of Manhattan's first nagogue, trace the island's original oreline, and visit the graves of me historic Manhattanites.

isan Dublin has taught Archaeology SUNY Purchase, Hunter College, and rnard College. Her extensive expeence with New York archaeology cludes excavations at sites such as 64 arl Street and the Dutch State House.

st: $20 Members, $25 Non-Members de: MM6-6

AMILY PROGRAM

orytelling in the Hall of Mexico nd Central America

ursday, June 21
30 p.m.

ildren and their families are invited a special evening of storytelling in the useum's Hall of Mexico and Central nerica. Surrounded by the artifacts of cient civilizations, master storyteller gina Ress will take us on a journey rough pre- and post-conquest myths, legends, and folk tales. We'll follow the great gods, Plumed Serpent and Smoky Mirror through five creations, meet a child of one of the Thunder Gods as he defeats the man-eating giant, and learn how corn came into the world. These are fascinating stories of creation, destruction, trickery, and triumph.

Regina Ress has been delighting audiences for over 25 years. The myths and folk tales of Mexico, Central, and South America are a special focus of her work. This program is appropriate for children ages 6 and up and their families.

Hall of Mexico and Central America
Cost: $12–Members only
Code: MM6-7

FREE HALL TOUR

Roy Chapman Andrews

Friday, June 29 and Saturday, June 30
6:15 p.m.

Trace the illustrious career of one of the twentieth century's most acclaimed explorers on this tour led by Museum docent Suzi Zetkus. We'll see the floors Andrews swept in his first position at the Museum, the work he did as a mammalogist in the Hall of Ocean Life, and the treasures he brought back from the famed Central Asiatic Expeditions.

Free–Members only. Registration is required–please call (212) 769-5200.
Code: MM6-3

PREVIOUSLY LISTED

Members' Lecture: The Eternal Frontier: An Ecological History of North America and Its Peoples

Tuesday, May 8
7:00 p.m.

Join renowned mammalogist and paleontologist Tim Flannery for a discussion of American history in the most comprehensive sense: the history of the formation of North America. Flannery will show how our continent came into being with an asteroid strike 65 million years ago, and was gradually transformed into the land we know today.

Kaufmann Theater
Cost $10 Members, $12 Non-Members
Code: MM5-1

Members' Lecture: Wild Nights

Tuesday, May 29
7:00 p.m.

Deer in Manhattan, coyotes in the Bronx, wild turkeys flying down Broadway: amidst the traffic and tall buildings of America's most urban terrain, another community—invisible during daylight—has begun to stake a claim. Join author Anne Matthews for an introduction to our city's other inhabitants—those that cleverly make their homes in our in-between spaces. Matthews will examine confrontations between the urban and natural worlds, posing the question, "How far can we push the environment before it pushes back?"

Kaufmann Theater
Cost: $10 Members, $12 Non-Members
Code: MM5-2

Members' Expedition: Theodore Roosevelt: Naturalist

Saturday, May 5
8:45 a.m.–5:00 p.m.

Learn about Theodore Roosevelt, the outdoorsman, field biologist, and explorer on this excursion to Oyster Bay, Long Island. We will tour Roosevelt's home, Sagamore Hill, and the Theodore Roosevelt Sanctuary, an Audubon Bird Sanctuary established in Roosevelt's memory.

Cost: $65 Members, $75 Non-Members
Code: MM5-3

may 2001

Current Exhibits

The Butterfly Conservatory: *Tropical Butterflies Alive in Winter*
Through May 28, 2001

The Genomic Revolution:
May 26,2001–January 1, 2002

Monday	Tuesday	Wednesday	Thursday
	1 Lecture: Genetics and the Brain *7:00–8:30 p.m.*	**2**	**3** Family Program: St Night in the Akel y of African Mamma *6:30 p.m. Members $12*
7	**8** Lecture: The Eternal Frontier *7:00 p.m., Kaufmann Theater* Lecture: Learning and Memory *7:00–8:30 p.m.*	**9**	**10**
14 Lecture: The Multi-wavelength Universe *7:00–8:30 p.m., Hayden Planetarium*	**15** Margaret Mead Film Festival presents: THE MOTH: An Evening of Stories, *7:00-11:00 p.m., Rose Center, $15. Reservations are required;* **call (212) 292-0907.** Lecture: Development and Cognition, *7:00–8:30 p.m.*	**16**	**17**
21 Lecture: Time Travel in Einstein's Universe *7:00–8:30 p.m., Hayden Planetarium*	**22** Lecture: Brain Imagery *7:00–8:30 p.m.*	**23**	**24** Members' Preview *The Genomic Revolution* *6:00–8:30 p.m. Please rsvp to (212) 769-5606. Members only.*
27	**28**	**29** Lecture: Wild Nights *7:00 p.m., Kaufmann Theater*	**30** Film: *The Black T* *6:30–8:30 p.m., Kaufmann Theat*

Photography Exhibit: *Ancient Microworlds*
April 28 September 9, Akeley Gallery

Friday	Saturday	Sunday
4 **Starry Nights: Fridays Under the Sphere** Jazz Performance by the Gregory Tardy Quartet *5:45–8:00 p.m.*	**5** Members' Expeditions: Theodore Roosevelt, Naturalist *8:45 a.m.–5:00 p.m.* Please see pages 10 and 12 for a complete listing of Indigenous Peoples: Perspectives and Perceptions weekend family programs.	**6** Children's Workshop *10:30 a.m.–1:30 p.m.* *See page 11.* Walking Tour: The Upper East Side *10:30 a.m.–1:30 p.m.*
11 **Starry Nights: Fridays Under the Sphere** Jazz Performance by the Gregory Tardy Quartet *5:45–8:00 p.m.*	**12** Walking Tour: Central Woodland, Pelham Bay Park *10:00 a.m.–1:00 p.m.* Biodiversity Awareness Day *11:00 a.m.-3:00 p.m.* *Central Park (mid-Park between 81st and 85th Streets)*	**13** Open/Closed Walk in Central Park *4:00-7:00 a.m.*
18 **Starry Nights: Fridays Under the Sphere** Jazz Performance by the Gregory Tardy Quartet *5:45–8:00 p.m.* Performance: An evening with Mary Redhouse *7:30 p.m., Kaufmann Theater*	**19** Birding in the Bronxkill Marsh *7:00 a.m.–5:00 p.m.*	**20** Children's Workshop *10:30 a.m.–1:30 p.m.* *See page 11.*
25 **Starry Nights: Fridays Under the Sphere** Jazz Performance by the Gregory Tardy Quartet *5:45–8:00 p.m.*	**26** Film: *The Secret Adventures of Tom Thumb* *5:30-6:30 p.m., Kaufmann Theater*	**27**
31 **Starry Nights: Fridays Under the Sphere** Jazz Performance by the Gregory Tardy Quartet *5:45–8:00 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) 769-5606
Education Department	(212) 769-5304
Planned Giving Office	(212) 769-5119
Discovery Tours	(212) 769-5700
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 PRESENTS...

Revolutionizing Medicine in the Twenty-First Century

Three Tuesdays, May 8, 15, and 22
7:00-8:30 p.m.
$30 for series ($27 Members, students, senior citizens); $12 each ($10)
Code: ED21206L
Each talk will discuss a separate issue. The series is co-sponsored by New York-Presbyterian Hospital, Columbia University College of Physicians and Surgeons, and Weill Medical College of Cornell University. For additional information call (212) 769-5176.

May 8
Learning and Memory–Dr. Eric Kandel, Nobel prize-winning Professor of Neurobiology and Behavior, Columbia University

May 15
Development and Cognition–Dr. Michael Posner, Sackler Professor of Developmental Psychobiology, Director, Sackler Institute, Weill Medical College of Cornell University

May 22
Brain Imagery–Dr. David Silbersweig, Co-Director, Functional Neuroimaging Laboratory, Director, Neuropsychiatry Program, Associate Professor of Psychiatry and Associate Professor of Neurology and Neuroscience, Weill Medical College of Cornell University

Birdsong in Nature and Human Culture

Saturday, May 12, 10:30 a.m.–5:00 p.m. and Sunday, May 13, 4:00–7:30 a.m. (Sunday is optional)
$65 , Code: ED21208L
You may sign up for the "Dawn Chorus Walk" in conjunction with this program, or separately.

Urban Forest Walking Tour: Central Woodland, Pelham Bay Park

Saturday May 12
10:00 a.m.–1:00 p.m.
Code: ED 21310X

Whale Watch 2001

Friday through Sunday, May 18–20
Code: ED21301X
$450 double occupancy; $525 single-room occupancy
This varied three-day excursion to Provincetown, Massachusetts offers a visit to Connecticut's Mystic Aquarium en route, a birding or dune walk, and chartered cruises led by experts in identifying whales and sea birds.

Birding in the Bashakill Marsh

Saturday, May 19
7:00 a.m.–5:00 p.m.
Code: ED21313X
$50, Limited to 25 adults
Visit Bashakill Marsh in Sullivan County, one of the largest freshwater marshes in New York State and a beautiful home for a host of nesting species, including wood duck, osprey, bald eagle, woodpeckers and many others.

Osprey AMNH collections

ARTHUR MARKS WALKING TOURS

Arthur Marks, leader of walking tours since 1965, explores four historic Manhattan neighborhoods. All tours are from 1:30 to 3:30 p.m., $12 ($10 Members, students, senior citizens) per tour. Tours will take place rain or shine; dress for the weather. Participants will be sent meeting locations.

Sunday, May 6
The Upper East Side
Code: ED21314X

Sunday, June 10
The West Village Rediscovered and Revived
Code: ED21316X

Sunday, June 24
Gramercy Park and Edith Wharton
Code: ED21317X

GEOLOGY BY BOAT WITH SIDNEY S. HORENSTEIN

Geologist and specialist in New York City's underpinnings Sidney S. Horenstein leads three boat trips.

Tuesday, June 5
Sunset Cruise Up the Hudson River
Code: ED21322X
6:00-9:00 p.m., $45

Tuesday, June 12
The Nooks and Crannies of Eastern New York Harbor
Code: ED21323X
6:00-9:00 p.m., $45

Saturday, June 23
Exploring the East River and the Long Island Sound
Code: ED21324X
11:00 a.m.-3:00 p.m., $55

ILDREN'S WORKSHOPS

ildren should bring a bag lunch for ree-hour programs. All programs are $15.

awing and Painting African Mammals
nday, May 6
:30 a.m.–1:30 p.m., ages 9 and 10

inforest Books
nday, May 6
:30 a.m.–1:30 p.m., ages 8 and 9

useum Diaries
nday, May 6
:30 a.m.–1:30 p.m., ages 9 and 10

kes, Your Body Up Close
nday, May 20
:30 a.m.–1:30 p.m., ages 7 and 8

igami: Folded Paper Treasures
nday, May 20
:30 a.m.–1:30 p.m., ages 9 and 10

rd Watching Fieldtrip
nday, May 20
:30 a.m.–1:30 p.m., ages 10 and 11

xplorers Expedition
aturday, June 2
:30 a.m.–1:30 p.m., ages 9 and 10

rime Lab Investigation
aturday, June 9
:30 a.m.–1:30 p.m., ages 8 and 9

outh Street Seaport Walking Tour
aturday, June 16
:00 a.m.–12 p.m., ages 9, 10, and 11
isit New York Harbor's 11 square block istoric district of eighteenth and ineteenth century buildings and once hriving port clotted with clipper ships, ailors, and soup kitchens.

The Discovery Room opening June 9, 2001

This interactive space offers families, and especially children ages 5–12, a gateway to the wonders of the American Museum of Natural History, and a hands-on, behind-the-scenes look at the Museum and its science. Every major field of Museum science and research is represented in the Discovery Room, from anthropology to astrophysics. Children, accompanied by adults, can explore an array of puzzles and games, artifacts and specimens, and active scientific challenges and investigations:

- *Hunt for hidden creatures in a majestic two-story replica of an African baobab tree that is filled with specimens of tropical birds, insects, reptiles, and small mammals.*

- *Take on challenges from scientists to identify animals from evidence and notes collected in the field in an Expedition Trunk.*

- *Gather around an authentic Kwakuitl totem pole carved for the Museum in 1992, and learn about cultures from Brooklyn to Bombay, examining traditional and contemporary artifacts from around the world.*

- *Assemble the cast skeleton of a prestosuchus—a 14-foot-long reptile from the late Triassic, handle real fossils, and dig for fossils in a recreation of a paleontology field site.*

- *Analyze astronomical images from land-based and satellite-mounted telescopes to hunt for supernova explosions and asteroids, or track an earthquake anywhere in the world on a three-drum seismograph.*

The Discovery Room was developed by the Museum's Education Department and designed and constructed by the Museum's Exhibition Department, in conjunction with CR Studios. The Discovery Room was made possible by a grant from the Edward John Noble Foundation.

The African baobob tree under construction in the Discovery Room
Photo Denis Finnin.

Members' Preview of the Discovery Room

Saturday, June 2 and Sunday, June 3, 10:00 a.m.–4:00 p.m.

Bring the family to explore this wonderful new educational adventure.
Space is limited, so please call Central Reservations at (212) 769-5200 to reserve your date and time.

program listings

HAYDEN PLANETARIUM PRESENTS...

COURSES

Stars, Constellations, and Legends
Hank Bartol–avid amateur astronomer
May 3, 10, 17, June 7, 6:30-8:30 p.m.
$50
Locate and identify the brightest stars, whether you are observing from the center of a large city or under dark country skies. This course will be held in the Hayden Planetarium Space Theater.

How To Use a Telescope
Don Neill–graduate research fellow in AMNH's Department of Astrophysics and doctoral candidate at Columbia University
May 7, 14, 21, June 4, 6:30-8:30 p.m.
$50
An introduction to using telescopes for amateur astronomy. No previous knowledge of astronomy is assumed. This course is ideal for those who have a telescope but are not sure how to use it.

LECTURES

All lectures take place in the Hayden Planetarium Space Theater. At the end of each lecture, a short sky show will be presented using the Planetarium's Zeiss Mark IX star projector. Bring your binoculars! Weather permitting, there will be telescope observing on the Ross Terrace.

Frontiers in Astrophysics
The Multiwavelength Universe
Dr. Alyssa Goodman–professor of astronomy at Harvard University
Monday, May 14, 7:30 p.m.
$10 ($8 Members, students, seniors)
Our eyes perceive only a tiny part of the light that streaks through space. Astronomers use light of all kinds–gamma rays, X-rays, ultraviolet and infrared light, microwaves and radio waves–to probe cosmic phenomena. In so doing, they reveal far more about the Universe than the eye can see. Dr. Goodman tells us of the many windows into the cosmos, and how we combine what we learn from all of them to tackle some of the most difficult puzzles of modern astrophysics.

What's the Matter in the Universe?
Dr. Vera Rubin–an astronomer at the Carnegie Institute in Washington D.C.
Monday, June 4, 7:30 p.m.
$10 ($8 Members, students, seniors)
Dr. Rubin has been a pioneer in the study of the structure of galaxies, and of dark matter in the cosmos. Her research, together with the work of others, has helped to show that over 90% of the matter in the Universe emits no light of any kind. Dr. Rubin will describe that part of the Universe that is visible, and discuss the progress so far in the effort to unravel the nature of the invisible Universe. This lecture is co-sponsored by the New York Academy of Sciences.

DISTINGUISHED AUTHORS IN ASTRONOMY

Time Travel in Einstein's Universe
Dr. J. Richard Gott–professor of astronomy at Princeton University
Monday, May 21, 7:30 p.m.
$10 ($8 Members, students, seniors)
Time travel in Newton's Universe was inconceivable, but in Einstein's Universe it becomes a real possibility. Indeed, time travel may be important in understanding the Big Bang itself–a time loop may allow our Universe to be its own mother! Dr. Gott, widely regarded as one of the most creative thinkers in the field of theoretical cosmology, explores the fascinating and often surprising interplay of space and time. Dr. Gott will be available to sign books (on sale) after the lecture.

DEPARTMENT OF EDUCATION PRESENTS

Indigenous Peoples: Perspectives and Perceptions

May and June
Weekend Family Programs
1:00-5:30 p.m.

This program honors indigenous artists, performers, organizers, and activists who have contributed to changing centuries-old stereotypes and promoting education from their own cultural perspectives.

...on history and identity
Saturday and Sunday, May 5 and 6
Lecture and Demonstration: Hawaiian Cultural Arts with Kilohana and Lehua Domingo
1:00p.m., Linder Theater

Performance: He Po'ai Aloha (Encircled with Love): The Musical Legacy of Her Majesty Queen Lili'uokalani
2:15 p.m., Linder Theater

Photo by Holger Thoss from the display 508 Years

he film *In Whose Honor?*

n Screening: Black Indians. An
erican Story
p Richie, director. 60 minutes.
o p.m., Linder Theater

tural Presentation. Cherokee Language
Cultural Circle
o p.m., Linder Theater

n ancestral remains and repatriation
urday, May 12 only
n: *A Grave Matter*
ly Briley and Erica Heinsen, directors.
3. 30 minutes.
o p.m. and 4:30 p.m., Leonhardt People
nter

ture: Trouble in Paradise
niki Reyes Ocasio (Taino)
o p.m., Leonhardt People Center

rformance: Coatlicue Theater Co.
o p.m., Leonhardt People Center
orytellers, playwrights, performers
d community activists, Elvira and
rtensia Colorado (Chicimec/Otomi)
e songs, stories and movement to
amatize the issue of ancestral
mains and repatriation.

day May 18
ecial Feature Performance: An Evening
th Mary Redhouse
0 p.m., Kaufmann Theater

on traditional knowledge in
day's society
aturday and Sunday, May 19 and 20
sket Making Demonstration: Donna
endez and Laura Wong White Bear
o p.m., Leonhardt People Center

cture and Musical Demonstration: Mary
dhouse (Diné)
o p.m., Leonhardt People Center

lm: *Circles* *Shanti Thakur, director. 1997.*
7 minutes. 3:15 p.m., People Center

Performance: Aztec Mexican Dance
Presentation
4:30 p.m., Kaufmann Theater

...on racism and discrimination
Saturday, May 26, Linder Theater
In collaboration with the NGO Committee on the United Nations International Decade of the World's Indigenous Peoples, this program (see below) investigates issues of racism/discrimination against Indigenous Peoples of the Americas.

Film: *In Whose Honor?*
Jay Rosenstein, director, 1996. 60 minutes.
1:00 p.m., Linder Theater

Performance: Spider Woman Theater
presents Persistence of Memory
2:30 p.m., Linder Theater

Panel Discussion: Indigenous Peoples–In
our Image?
3:45 p.m., Linder Theater

May 12, 19, and 20, 1:00-5:30 p.m.
Leonhardt People Center
Art and Photography Display. 508 Years
The Contemporary Presence of the Taino
Indian in Borinken and Beyond
To view the display during regular museum hours on other days in May, please contact the Education Department at (212) 769-5315 for an appointment.

All programs are free. Reservations are not required. Seating is limited and is on a first-come, first-served basis. For further information, call the Museum's Department of Education at (212) 769-5315, between 9:00 a.m. and 5:00 p.m. weekdays.

The American Museum of Natural History wishes to thank the May and Samuel Rudin Family Foundation, Inc., the Tolan Family, and the family of Frederick H. Leonhardt for their support of these programs.

museum notes

Birthday Parties at the Museum

Calling all space heroes! Get ready for the Cosmic Blast-Off party, the most exciting galactic adventure this side of Jupiter. The birthday child pilots the party as Astronaut-in-Command and leads the way through the Rose Center for Earth and Space. The tour will focus on the planets in our solar system and guests will feast on a special astronaut snack. A stopover at the Hayden Planetarium Space Show is also available during the interstellar flight. This party is available weekdays only and is appropriate for children ages seven and up.

Linda Kaye's Birthdaybakers, Partymakers bring their winning combination of education and entertainment to AMNH with five different exciting theme parties to transform your child's birthday into an unforgettable event. Parties are geared to children ages five and up, are planned seven days a week, and are available to Contributor and higher level Members only.

For more information, please contact Partymakers at (212) 288-7112.

Biodiversity Awareness Day

May 12, 11:00 a.m.-3:00 p.m.
Central Park, Great Lawn (mid-Park between 81st and 85th Streets)

Explore the diversity of life in Central Park with activities and field experiences for children and adults led by Museum scientists, Department of Education staff, Urban Park Rangers, and others. Meet David Allen Sibley, author and illustrator of National Audubon Society's, *The Sibley Guide to Birds*. The book will be available for purchase. The event is co-sponsored by the New York City Department of Parks and Recreation, the Urban Park Rangers, and the Central Park Conservancy. For more information call the Parks Event Hotline, (888) NY-PARKS.

Members' Special

Restaurant Associates invites you to take a delicious break at the Museum Food Court. In May, Members may enjoy a free Espresso (a $2.50 value), when they purchase any one of Chris' Cookies or Brownies. Selections include Belgian Chocolate Chunk Cookie, Java Espresso Crunch Brownie, and Oatmeal Dried Cherry Walnut Cookie.

As always, Members of the Museum receive a 15% discount at the Museum Food Court, Café on 4, and Café 77. To obtain a discount, simply present your membership card at the start of your transaction.

Spotlight Tours

Tours begin in the Akeley Hall of African Mammals on the second floor.

Rose Center
May 7, 14, 21, 22, 12:45 p.m.
May 7, 14, 15, 21, 2:45 p.m.
Dynamic Earth, *May 4, 4:45 p.m.*
Incredible Sharks, *May 5, 11:45 a.m.*
Human Evolution, *May 19, 1:45 p.m.*
Fabulous Felines, *May 20, 1:45 p.m.*

Gregory Tardy

Friday Jazz

Starry Nights: Fridays Under the Sphere
A weekly series of live jazz at the Rose Center for Earth and Space continues in May with performances every Friday by the Gregory Tardy Quartet.

The band will play one-hour sets at 5:45 p.m. and 7:15 p.m. Cash bar and tapas are available. Call (212) 769-5100 for more information.

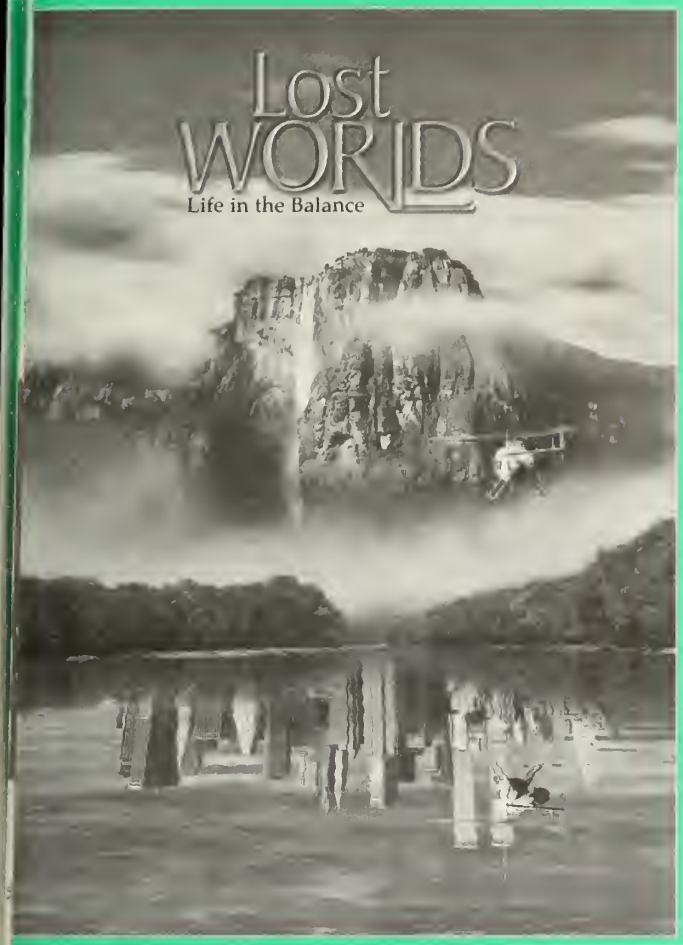
Please send us your email address!

Future plans include offering an online version of Rotunda. The first step is to collect the email addresses of Members who are interested in receiving the publication via email.

Please send a message to members@amnh.org and include your name and postal address or membership number.

The Membership Department wishes to acknowledge the generous gift of a Kodak DC4800 digital camera from the Eastman Kodak Company.

A number of the photographs published in Rotunda are taken with the DC4800 digital camera.



Lost Worlds: Life in the Balance

From the ruins of Tikal, a Mayan city abandoned for over 1,000 years, to the complex workings of the New York City watershed, *Lost Worlds: Life in the Balance* artfully engages audiences in an exploration of biodiversity, the range and variety of life on Earth. Visually compelling, *Lost Worlds* reveals the incredible diversity of life on Earth and stresses the importance of educating people, especially those who live in urban centers, about their ties to the natural world and how their immediate actions can have a major impact.

Directed by Academy Award nominee Bayley Silleck and narrated by Harrison Ford, *Lost Worlds: Life in the Balance* is a production of Primesco International, Inc., with a generous grant from the National Science Foundation. The film will run through fall 2000 in the IMAX theater.

IMAX SCHEDULE:

***Lost Worlds: Life In The Balance*, Sunday–Thursday at 10:30 a.m. and 5:00 p.m., with an additional showing on Friday and Saturday at 6:50 p.m.**

***Shackleton's Antarctic Adventure*, Sunday–Thursday: 12:20 p.m., 2:10 p.m., 4:00 p.m., additional showing on Friday and Saturday at 7:55 p.m.**

***Ocean Oasis*, Sunday–Thursday: 11:25 a.m., 1:15 p.m., 3:05 p.m., additional showing on Friday and Saturday at 6:35 p.m.**

Jason and Susanna Berger Provide for Science Education at AMNH ...*and for Their Own Retirement*

The Berger at the Hall of Mammals
Photo Craig Chesek.

Jason and Susanna Berger have spent their lives immersed in books and literature, and they are deeply committed to education. Looking back on his years as a marketing executive at Simon and Schuster, Jason believes that the promotion of Little Golden Books was one of the most significant accomplishments of his career. He says, "One of my proudest achievements was the distribution of those colorful, modestly priced little books to supermarkets and pharmacies across the country, where they found their way into the hands of millions of young children who otherwise might have had little exposure to children's literature."

Several years ago, Jason and Susanna showed their appreciation for science education and the range of AMNH's programs for people of all ages by including the Museum in their wills. Then, last year, they discovered charitable gift annuities.

A gift annuity is a way to support the Museum and provide lifetime income to one or two people fifty-five or older. When appreciated, low-yield stock is used to fund the gift plan, and capital gains tax is avoided and deferred.

According to Susanna, "Because we can give and receive income for life, this is an ideal way for us to provide now a part of the gift we want the Museum to have in the future. In fact, we like gift annuities so much, we plan to do one every year!"

For more information about gift annuities, bequests, and other planned gifts, please contact the Museum's Planned Giving Office at (212) 769-5119 or toll-free at (800) 453-5734.

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.

Café on 4

Sun.–Thurs.	11:00 a.m.–4:45 p.m.
Fri. & Sat.	11:00 a.m.–7:45 p.m.

Café 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.

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

Central Reservation Coupon

Program Name/Date # Mem

_____

_____

_____

_____

Rotunda.
American Museum of Natural History
Received on: 04-30-01

Mr./Mrs./Miss/Ms. _____

Address _____

City _____ State _____ Zip _____

Telephone (Day) _____ (Evening) _____

Membership No. _____

❑ Check ❑ Am.Ex. ❑ Visa ❑ MasterCard

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 @ 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 second-floor Roosevelt Memorial Hall entrances (79th Street and Central Park West), or through the West 81st Street Rose Center entrance. Visitors may also enter through the Weston Pavilion on Columbus Avenue at 79th Street.

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.

Members' Preview–*The Genomic Revolution*
May 24, 2001, from 6:00–8:30 p.m.

rotunda

Vol. 26 No. 6 June 2001

Members' Newsletter

670
.52
N
v. 26
n. 6
Jn 2001

the feathered dinosaur

American Museum of Natural History

discovery of a remarkably preserved fossil dinosaur from China on display at AMNH

A team of Chinese and American scientists announced in *Nature* the discovery of a remarkably preserved, 130-million-year-old fossil dinosaur covered from head to tail with downy fluff and primitive feathers. It is the first dinosaur found with its entire body covering intact, providing the best evidence yet that animals developed feathers for warmth before they could fly.

The dinosaur was unearthed last spring by farmers digging in the famous fossil beds of northeastern China's Liaoning Province. It is described in the science journal *Nature* by a team led by Ji Qiang, of the Chinese Academy of Geological Sciences, and Mark Norell, Chairman of the Division of Paleontology at the American Museum of Natural History.

Illustration of what the feathered dinosaur might have looked like. M. Ellison, 2001.

The researchers have identified the fossil as a dromaeosaur, a small, fast-running dinosaur closely related to *Velociraptor* with a sickle claw on its middle toe and stiffening rods in its tail. Dromaeosaurs belong to a group of dinosaurs known as advanced theropods, two-legged predators including *Tyrannosaurus rex*, with sharp teeth and bones strikingly similar to those of modern-day birds.

"This fossil radically modifies our vision of these extinct animals," said Norell, whose discoveries in the Gobi Desert of Mongolia have led to new ideas about theropods and bird origins. "It shows us that advanced theropod dinosaurs may have looked more like weird birds than giant lizards."

Entombed in two slabs of fine-grained rock, the dinosaur's skeleton resembles that of a large duck with a long tail and an oversized head (indicating that the animal was a juvenile). A small fish is embedded in the rock near its left foot. Its head and tail are covered with downy fibers. Other parts of its body sprout tufts or sprays of filaments resembling primitive feathers, and the backs of its arms are adorned with branched structures like the barbs of a modern bird feather.

The spectacular fossil is on loan from the National Geological Museum of China to the American Museum of Natural History, where it is being publicly displayed for the first time. While in the United States, it will also travel to Texas to be imaged with a special CAT scan machine to give scientists a more detailed, three-dimensional view of the skeleton.

Since 1995, when the first dinosaur with primitive feathers, *Sinosauropteryx*, was discovered in the Yixian Formation of the Liaoning fossil beds, several new species of dinosaurs with feather-like structures have been found there. But in most cases the fossils were jumbled or incomplete—making it unclear how the feather-like structures related to the animal's body. Critics of the widely accepted theory that modern birds evolved from dinosaurs have questioned the validity of these "feathered" dinosaurs, claiming that the feather-like structures were not primitive feathers or that the specimens were mixed-up fossils of primitive birds and dinosaurs.

The detail on the newly discovered dromaeosaur is so fine that it allows scientists to see how the primitive feathers were attached to the dinosaur's body. "This is the specimen we've been waiting for," says Ji Qiang. "It makes it indisputable that a body covering similar to feathers was present in non-avian dinosaurs."

Because dromaeosaurs are more primitive than birds, this fossil helps make the case that feathers developed before flight. In small, flightless dinosaurs like this one, feathers may have evolved as an essential piece of equipment for staying warm.

"Modern birds are warm-blooded, and their feathers play an integral role in keeping them warm, so a reasonable idea is that non-avian dinosaurs developed primitive feathers at the same time that they developed warm-bloodedness," says Norell. "It's conceivable that smaller dinosaurs like this one and even the young of larger species like *Tyrannosaurus rex* may have needed feather-like body coverings to maintain their body temperature."

Scientists have yet to determine if the

ıe Times Capsule

ıe New York Times Capsule, commis-
ɔned by *The New York Times* to
ıronicle life in the late twentieth
ntury was installed in a ceremony on
ɔril 26, 2001. The Capsule, a 5' x 5' x 5'
ulpture of welded stainless steel, was
esigned by renowned Spanish architect
ıntiago Calatrava, whose entry was
ıosen from among 50 proposals. The
ıpsule was the centerpiece of the
useum's 1999 exhibition *Capturing
me: The New York Times Capsule.*

escribed by Calatrava as resembling a
ɔwer, the Capsule contains diverse
tifacts of the late twentieth century
ıd will be permanently on display atop
polished black granite base in the plaza
the Judy and Josh Weston Pavilion at
ɔlumbus Avenue and West 79th Street,
ıtil the year 3000, at which time the
ıpsule will be opened.

Architect and sculptor Santiago Calatrava speaks about the design of The New York Times Capsule. Jack Rosenthal, President, The New York Times Company Foundation, is seated. Photo Denis Finnin.

w dromaeosaur represents a new
ecies. But they do know that it shares
me anatomical characteristics with
o other dromaeosaurs discovered in
e same fossil beds: *Sinornithosaurus*, a
all theropod dinosaur first described
1999, and *Microraptor*, the smallest
own theropod dinosaur, found last
ar.

Treasure Trove of Fossils in China

nsisting of layers of volcanic and
dimentary rock, the Yixian Formation
China's Liaoning Province has yielded
enormous variety of fossil fish, birds,
sects, reptiles, shrimp, flowers,
ammals, and dinosaurs dating back to
e Jurassic and early Cretaceous
mes—between 145 and 120 million
ars ago. At that time, the region was
tted with freshwater lakes and
lcanoes. Volcanic explosions rained
e ash into the lakes, and animals that
ed or fell into the water were quickly
ried in the fine-grained sediment at
e bottom. Because they were buried
quickly, with so little oxygen available
promote decay, the fossil animals
und in the Yixian Formation have
licate features almost impossibly
eserved from feathers and fish scales
patterns on insect wings.

"These fossils have dramatically changed the way we understand what life was like during late Jurassic and early Cretaceous times," said Ji Qiang.

How Are Dinosaurs Related to Birds?

In the last two decades, other bird-like dinosaurs and dinosaur-like birds have been unearthed at fossil sites around the world, including those in Madagascar, Mongolia, Patagonia, and Spain. Together with the Chinese fossils, they provide strong evidence that birds evolved from theropod dinosaurs. Yet a small group of scientists still argue against the dinosaur-bird link, insisting that birds evolved independently from some earlier, yet undiscovered, reptile much farther back in time.

The link between dinosaurs and birds was first noted in the mid-1800s by naturalist Thomas Henry Huxley, who observed that birds were built much like reptiles, but with a beak instead of teeth and with three reptilian fingers hidden inside their wings. In the 1970s, John Ostrom of Yale University launched a meticulous comparison of the anatomical features of dinosaurs and the oldest known bird, *Archaeopteryx*. Today we know that theropod dinosaurs and birds share more than 100 anatomical features, including a wishbone, swiveling wrists, and three forward-pointing toes. Among all advanced theropods, the swift-running dromaeosaurs are thought to be the most closely related to birds.

Cover image: Feathered dinosaur fossil on display at AMNH. Photo M. Ellison.

rotunda

ISSN 0194-6110
Vol. 26, No. 6, June 2001

Mark Shoffner, *Editor*
Sandi Frank, *Copy Editor*
Rosemary Caulk, *Director of Membership*
Lynn DeBow, *Vice President for Development and Membership*
Ellen V. Futter, *President*
Lewis W. Bernard, *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*.

©2001 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.

first cluster supercomputing conference opens at AMNH

experts explore the promise of simple machines together solving complex problems

The first comprehensive conference to examine the growing prominence of parallel or cluster supercomputers in scientific research is being convened on June 13-14, 2001, at the American Museum of Natural History.

Over the last ten years, parallel computers—sometimes hundreds of off-the-shelf microprocessors linked together to boost computational speed and efficiency—have come to dominate many scientific fields, especially genomics and astrophysics. This new breed of computer is routinely used to tackle formidable calculations, from reconstructing the evolutionary linkages between dinosaurs and birds to tracing the evolution of gas clouds in space. Many scientists now believe that only computers linked together in "clusters" can provide researchers with the immense computational power necessary to make sense of the flood of complex data presented by genomics and astrophysics.

"The Museum's own supercomputer, a self-made cluster of over 500 Intel Pentium CPUs, is one of the fastest in the world, and certainly the largest of its kind being used for academic research," said Ward Wheeler, Curator in the Museum's Division of Invertebrate Zoology, and chief organizer for the two-day conference.

Image from Toy Story, an animated film which used parallel sytems. Image courtesy Pixar/Disney.

New Directions in Cluster Supercomputing opens with a group of local students, ages 8 to 18, who will experience the power of parallel computing first hand when they attempt to build a supercomputer from scratch with a little help from members of the Museum's Education Department. The students will snap together and assemble motherboards, hard drives, and processing chips. Then the individual units, or nodes, will be linked together to work on creating a map of the evolutionary relationships between dinosaurs and birds using real genomic and morphological data generated by the Museum.

Scientific sessions at the Museum on Wednesday, June 13, and Thursday, June 14, 9:00 a.m. to 5:00 p.m., showcase how various research communities are harnessing the huge computational powers of cluster supercomputers.

The sessions on Wednesday, June 13, are:

Directions in Computational Biology examines the use of parallel algorithmics and cluster computing in phylogenetics, genomics, and neurobiology. Discussions will be based on research results and theoretical considerations in the use of ever-larger parallel systems to deal with complex biological problems.

Parallelism in Your Life makes the connection between academic pursuits and everyday life. Presentations examine the parallel approaches to forecasting the weather, guiding air traffic around the country, and creating breakthroughs in scientific visualizations.

Closing: The State of the Art introduces David Cooper, Associate Director for Computation and Chief Information Officer at Lawrence Livermore Labs (home of the fastest computer in the world).

The sessions on Thursday, June 14, are:

Directions in Astrophysics describes the various ways that astrophysicists use parallel clusters, from modeling star and planet formations to computing the evolution of galaxies. Mordecai-Mark Mac Low, Assistant Curator in the Museum's Department of Astrophysics, and others, relate actual experiences and technical approaches used in different computing environments.

Selected Concepts and Hardware will present the range of potential cluster/parallel systems, from tightly-integrated ("big iron") multiprocessor systems to "Beowulf" clusters and loosely-integrated, low bandwidth approaches. Various manufacturers will go head-to-head discussing the pros and cons of the different systems.

Directions in Computer Science explores the ways in which our thinking about scientific problems changes in a parallel framework. Andrew Pohorille, Director of NASA Center for Computational Astrobiology, Ames Research Center, examines how the interaction between hardware and software has shaped their evolution.

Success Stories celebrates specific achievements using parallel systems, such as the assembly of the human genome and the creation of computer animation movie blockbusters, such as *Toy Story* and *Dinosaurs*.

New Directions in Supercomputing is convened by AMNH in collaboration with the National Aeronautics and Space Administration (NASA), Ames Research Center, Office of Fundamental Biology Program.

The conference is sponsored by Compaq.

Toshiaki "Tag" Taguchi, President and CEO, Toyota Motor North America, Inc. and Ellen V. Futter, President, AMNH.

The AstroBulletin

The Museum is pleased to announce a most generous gift from Toyota Motor North America, Inc. in support of the AstroBulletin, located in the Frederick Phineas and Sandra Priest Rose Center for Earth and Space.

Employing high-definition video, computer animations, and images from satellites, observatories, NASA, and the Hubble Space Telescope, the AstroBulletin displays magnificent astronomical views and is an excellent source of breaking news, running feature stories that dramatize cosmic events and explain astronomical concepts. Visitors may also gather further information through interactive touch-screen computer kiosks, located at the base of the AstroBulletin, and can access AstroBulletin stories on the web at http://astrobulletin.amnh.org.

"Toyota's corporate philosophy places an important emphasis on supporting science education," says Toshiaki "Tag" Taguchi, President and CEO of Toyota Motor North America, Inc. "In just over a year, the Rose Center has made a tremendous impact in the advancement of science education and we are proud to support the Museum's efforts."

Special Members' Program

African Eclipse

Thursday, June 21
7:45–9:45 a.m.
Rose Center for Earth and Space, featuring the new AstroBulletin

On Thursday, June 21, 2001, parts of the Atlantic Ocean and several countries in southern Africa will be in the path of a total solar eclipse. This eclipse—the only one taking place this year—is a result of the Moon's perfect alignment between the Sun and Earth. Because the Sun and Moon appear to be approximately the same size in the sky, the Moon will block out the light from the Sun and cast a shadow approximately 100 kilometers in diameter on the surface of the Earth. The shadow will first appear in the middle of the Atlantic Ocean, and will move eastward across southern Africa and end off the eastern coast of Madagascar. Anyone in the narrow path of the total eclipse will be in this shadow. During totality, which will last only a few minutes, observers can see the Sun's corona and even stars because so much sunlight is blocked out.

Total solar eclipse, February 1980.
Photo Bill Livingston/AURA/NOAO/NSF

Because there will not be a total solar eclipse visible in the United States until 2008, this is the perfect opportunity to join us at the Rose Center and be part of the experience. Although we cannot see the eclipse from the United States, we will watch it broadcast live by San Francisco's Exploratorium from Africa on the AstroBulletin wall in the Hall of the Universe, provided the weather is good in their location in Africa. There will also be activities for children, solar eclipse demonstrations in the planetarium using the Zeiss projector, and barring any delays or changes in the mission schedule, live images from the International Space Station as the astronauts watch the eclipse from space.

This free program is open to Members only and is limited to 500 participants. Please call (212) 769-5200 to reserve tickets.

members' programs

Lifecast figure of Robin Cassacinamon, a Pequot sachem, from the Pequot Museum.

MEMBERS' EXPEDITIONS

Native New England: The Pequot Museum

Saturday, July 21
8:30 a.m.–5:30 p.m.
Learn about native America from ancient times to the present on this expedition to the tribally owned and operated Pequot Museum in Mashantucket, Connecticut. Opened in 1998, the Museum, which inhabits a dramatic building designed by Polshek and Partners, is renowned for its state-of-the-art exhibitions explaining Native American culture in southeastern Connecticut from 18,000 years ago to the present.

Mashantucket, Conn., is also a National Historic Archaeological Landmark. Research Center archaeologists have identified over 250 sites dating from 11,000 years ago to modern times.

Take a guided tour of the award-winning exhibits, enjoy a native inspired lunch in the Museum's restaurant, and explore the state-of-the-art facilities for archaeological research and conservation on a special behind-the-scenes tour led by a Research Center archaeologist.

Susan Dublin, formerly of AMNH's Division of Anthropology, will provide commentary throughout the day. Ms. Dublin is an archaeologist whose research interests include the archaeology and ethnohistory of the Northeastern United States. She has taught archaeology at Purchase College, Hunter College, and Barnard College.

Code: MM7-1
Cost: $88 Members, $98 Non-Members
(Includes lunch and transportation by private charter motor-coach.)

The Geology of Central Park

Thursday, July 12
10:00 a.m. and 1:00 p.m.
Join Sidney Horenstein, Coordinator for the Museum's Environmental Programs, on a walking tour featuring the geology of Central Park's southern end. We will see rock exposures that reveal the 500 million-year-old bedrock formed when continents were colliding. Not only will we be walking over the worn-down roots of the ancient mountains that once existed here, we will also see excellent examples of glacial features that were formed some 17,000-20,000 years ago. Although the park has been landscaped, Horenstein will point out features reminiscent of Manhattan's original topography.

Cost: $18 Members, $20 Non-Members
Code: MM7-2 A (10:00 a.m.)
MM7-2 B (1:00 p.m.)

Meets at: Sixth Avenue at 59th Street (Central Park South)

FAMILY PROGRAM

Storytelling for Families in the Hall of North American Mammals

Tuesday, July 17
6:30 p.m.
In the Museum's Hall of North American Mammals, the great brown bear rears to a height of 12 feet, the bison stand proudly on the plains, and moose lock their antlers in battle. In the quiet evening hours, after the crowds have gone home, storyteller Katie Green will bring the animals to life through story. Children 5 and up and their families are invited to join in this celebration of native wildlife.

Author and storyteller Katie Green has served as President of the League for the Advancement of New England Storytelling. She selects and creates stories with the hope of connecting people to each other and our world.

This program is appropriate for children ages 5 and up.

Code: MM7-3
Cost: $12 per person
Members Only

FREE HALL TOURS

The Akeley Hall of African Mammals

Friday, July 13 and Friday, July 20
6:15 p.m.
Completed in 1936, the Hall of African Mammals stands as a monument to Carl Akeley, the explorer and artist who created it. Akeley employed his groundbreaking exhibition techniques to recreate the pristine wildlife habitats of Africa, that even then were disappearing. Join Kathryn Callaghan, Coordinator for Membership Programs, and take a

loser look at this classic hall, considered y many to be among the world's reatest Museum displays.

ode: MM7-4A (July 13) or M7-4B (July 20)
ost: Free–Members Only
egistration Required.

ocus on the Cullman Hall of he Universe

aturday, July 21
:00 p.m., 5:00 p.m., and 7:00 p.m.
ravel to the stars and beyond. Join Museum Docent Bill Hinchman for an in-lepth look at the Cullman Hall of the Jniverse in the Rose Center for Earth nd Space. We'll learn about planets, tars, galaxies, and the Universe itself.

ode: MM7-5
ost: Free–Members Only
egistration Required.

ocus on the Gottesman Hall of Planet Earth

aturday, July 28
:30 p.m., 5:00 p.m., and 6:30 p.m.
xplore the secrets of planet Earth. Museum Docent Bill Hinchman will lead his expedition focusing on volcanic eruptions, earthquakes, ocean venting, nd other phenomena associated with ur dynamic planet.

ode: MM7-6
ost: Free–Members Only
egistration Required.

PREVIOUSLY LISTED

Dragonhunter: The Life of Explorer Roy Chapman Andrews

Monday, June 4, 7:00 p.m.
Charles Gallenkamp examines the incredible life of explorer Roy Chapman Andrews, leader of the AMNH's famed Central Asiatic Expeditions. Andrews braved everything from raging sandstorms to murderous bandits and civil wars in order to recover a treasure trove of fossils from Mongolia.

Kaufmann Theater
Cost: $10 Members, $12 Non-Members Code: MM6-1

The Other Side of Eden

Wednesday, June 20
7:00 p.m.
Anthropologist, author, and filmmaker Hugh Brody discusses life in the Canadian Arctic and the philosophical challenges posed by hunter-gatherer cultures in a largely agricultural world.

Linder Theater
Cost: $10 Members, $12 Non-Members
Code: MM6-2

See page 13 for more information on *Dragon Hunter* by Charles Gallenkamp.

Members' programs continue on page 11.

Illustration by Charles Knight

Members' Fossil Hunting Expedition

Saturday, October 13 and Sunday, October 14

Journey into New York's geologic past, collect your own fossil specimens, and enjoy the glories of autumn upstate on this two-day Members' Expedition.

Howard Feldman, Research Associate in the Museum's Division of Paleontology and specialist in the pre-history of the Hudson Valley, will accompany the group. On Saturday, we'll visit paleontological sites in the Hudson Valley area. Moving on to the charming town of Hamilton, New York, we'll spend the night at the historic Colgate Inn, established in 1925.

On Sunday Morning, the fossil dig begins. Staff from the Paleontological Research Institute in Ithaca, New York, will lead the collecting expedition. We will learn how to find and identify the remains of animals such as the trilobite (pictured here) deposited on the bottom of an ocean hundreds of millions of years ago!

Cost: $295 Double Occupancy
$80 Single Supplement.
Includes transportation by private chartered motorcoach, one night accommodation and one dinner, breakfast, and lunch.

Code: Double Occupancy MM10-1A
Single Supplement MM10-1B

Image: Trilobite fossil. AMNH collections.

FOR ALL MEMBERS' PROGRAMS CALL CENTRAL RESERVATIONS AT (212) 769-5200

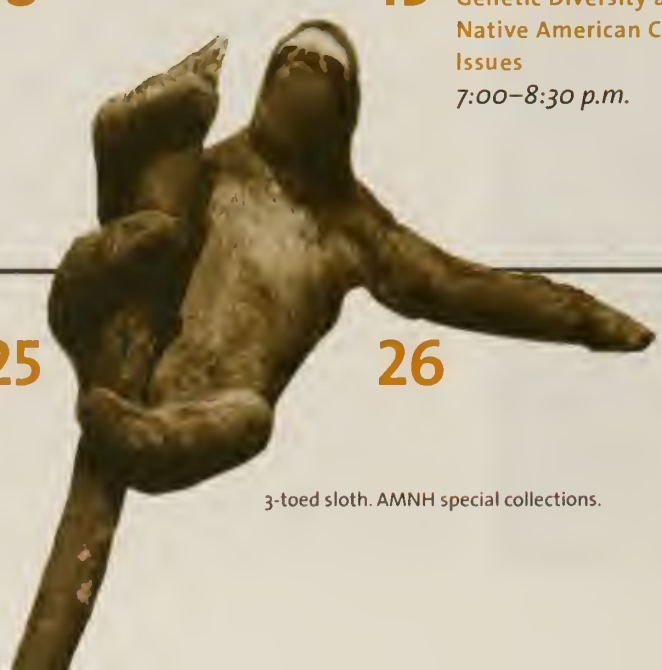
june 2001

Current Exhibits

The Genomic Revolution:
May 26,2001–January 1, 2002

Photography Exhibit: *Ancient Microworlds*
April 28–September 9, Akeley Gallery

Monday	Tuesday	Wednesday	Thursday
4 Lecture: Dragonhunter: The Life of Explorer Roy Chapman Andrews *7:00 p.m., Kaufmann Theater* Frontiers in Astrophysics: What's the Matter in the Universe? *7:30 p.m., Hayden Planetarium*	**5** Science of the Genome: Evolution and Genomics *7:00–8:30 p.m.* Geology by Boat: Sunset Cruise Up the Hudson River *6:00–9:00 p.m.*	**6** Film: *The Lost Tribes of Israel* *6:30-8:30 p.m., Kaufmann Theater*	**7**
11	**12** Science of the Genome: Natural History of the Genome *7:00–8:30 p.m.* Geology by Boat: The Nooks and Crannies of Eastern New York Harbor *6:00–9:00 p.m.*	**13** Panel Discussion: Science for Art's Sake *7:00–9:00 p.m., Linder Theater*	**14**
18	**19** Science of the Genome: Genetic Diversity and Native American Cultural Issues *7:00–8:30 p.m.*	**20** Discussion: How Green Are Our Valleys; Film: *Amrit Beeja* *6:30–8:30 p.m.* Lecture: The Other Side of Eden *7:00 p.m., Linder Theater*	**21** Special Members' Program: African Eclipse (see page 5) 7:45–9:45 a.m. Storytelling in the H of Mexico and Centr America *6:30-7:30 p.m. Members Only*
25	**26**	**27** Discussion: The Promise and Perils of the Genomic Revolution; Film: *After Darwin* *6:30–8:30 p.m.*	**28** Members' Expediti Walking Tour of Chinatown *1:00 p.m.*



3-toed sloth. AMNH special collections.

Imax Schedule: *Lost Worlds: Life In The Balance*, Sunday–Thursday at 10:30 a.m. and 5:00 p.m additional showing on Friday and Saturday at 6:50 p.m.

Shackleton's Antarctic Adventure, Sunday–Thursday: 12:20 p.m., 2:10 p.m , 4.00 p.m , additional showing on Friday and Saturday at 7:55 p.m.

Ocean Oasis, Sunday–Thursday: 11:25 a.m., 1:15 p.m., 3:05 p.m., Friday and Saturday at 5:55 p m

Friday	Saturday	Sunday
1 **Starry Nights: Fridays Under the Sphere** Jazz Performance by Ray Barretto and New World Spirit *5:45–8:00 p.m.*	**2** **Members' Preview of the Discovery Room** *10:00 a.m.–4:00 p.m. Members Only. Space is limited, so please call Central Reservations at (212) 769-5200 to reserve your date and time.*	**3** **Members' Preview of the Discovery Room** *10:00 a.m.–4:00 p.m. Members Only. Space is limited, so please call Central Reservations at (212) 769-5200 to reserve your date and time.*
8 **Starry Nights: Fridays Under the Sphere** Jazz Performance by Ray Barretto and New World Spirit *5:45–8:00 p.m.*	**9** **Genomic Research and Its Impact on Indigenous Peoples; Film: *Gene Hunters*** *2:00 p.m., Kaufmann Theater* **Children's Workshop: Crime Lab Investigation** *10:30 a.m.–1:30 p.m.*	**10** Members' Special Discount Day at the Museum Shops *10:00 a.m. to 5:45 p.m. (see page 14)*
15 **Starry Nights: Fridays Under the Sphere** Jazz Performance by Ray Barretto and New World Spirit *5:45–8:00 p.m.*	**16** **Children's Workshop: South Street Seaport Walking Tour** *10:30 a.m.–1:30 p.m.*	**17**
22 **Starry Nights: Fridays Under the Sphere** Jazz Performance by Ray Barretto and New World Spirit *5:45–8:00 p.m.*	**23/30** **Members' Expedition: From Menohhunet to Manhattan** *(June 30) 10:00 a.m. and 2:00 p.m.*	**24**
29 **Starry Nights: Fridays Under the Sphere** Ray Barretto and New World Spirit *5:45–8:00 p.m.* **Free Hall Tour: Roy Chapman Andrews (Friday and Saturday)** *6:15 p.m., Members Only Reservation required*		

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
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 PRESENTS...

Your Health Comes First... You Can Always Hang Yourself Later: A Sticks and Stones Presentation

Friday, June 8
7:00–8:00 p.m.
Kaufmann Theater
Free
Author Bara Caseley Swain returns to the Museum with a dramatic reading of her selected stories. Woven with compassion, honesty and, above all, a sense of humor, Ms. Swain illustrates and celebrates the human spirit with her entertaining and provocative prose. The performance will be signed as well as spoken.

Bara Caseley Swain

Genomic Laboratory Workshops

These hands-on, adult-level introductory workshops require no background in science. Held in the special sequencing laboratory in *The Genomic Revolution*. Limited to 25 persons per workshop. Workshops are $60.

Saturday, June 9
9:00-11:00 a.m.
Code: ED213020X

Wednesday, June 13
7:00-9:00 p.m.
Code: ED213019X

Saturday, June 16
9:00-11:00 a.m.
Code: ED213021X

Science of the Genome

Three Tuesdays, June 5, 12, and 19
7:00-8:30 p.m.
$25 for series ($22.50 Members, students, senior citizens); $12 each ($10)
Code: ED21207L
For more information, call (212) 769-5176.

June 5
Evolution and Genomics
Rob DeSalle, curator in the Division of Invertebrate Zoology and Curator of the special exhibition, *The Genomic Revolution.*

June 12
Natural History of the Genome:The Role of Genes in Nature, Extinction, Mutations, and Status
Niles Eldredge, curator in the Division of Paleontology at the Museum.

June 19
Genetic Diversity and Native American–First Nations Cultural Issues
Linda Burhansstipanov, Executive Director, Native American Cancer Research, Corp.

GEOLOGY BY BOAT WITH SIDNEY S. HORENSTEIN

Geologist and specialist in New York City's underpinnings, Sidney S. Horenstein, leads three boat trips.

Tuesday, June 5
Sunset Cruise Up the Hudson River
Code: ED21322X
6:00-9:00 p.m., $45

Tuesday, June 12
The Nooks and Crannies of Eastern New York Harbor
Code: ED21323X
6:00-9:00 p.m., $45

Saturday, June 23
Exploring the East River and the Long Island Sound
Code: ED21324X
11:00 a.m.-3:00 p.m., $55

EARTHWATCH AT THE MUSEUM

June 7, 7:00–8:30 p.m.
$12 each ($10 Members, students, senior citizens, Earthwatch members)
Co-sponsored by Earthwatch Institute.
Code: ED 21201L
Transition from Sail to Steam: Archaeology and the Social History of Ships–Dr. Richard Gould, professor of anthropology, Brown University

SUMMER CAMP PROGRAMS AT AMNH

Our goal is to inspire young people to discover the wonder and adventure in science study.
The Summer Camp Program is for children entering grades 5 or 6 in September, 2001. Each session includes hands-on investigations, tours behind-the-scenes, and visits with Museum scientists. Campers are dropped off at the 77th Street Entrance at 9:00 a.m. and picked up at 4:00 p.m. The fee for each five-day session is $350.

Session I: Dig Days Paleontology Camp July 9–13

Session II: Culture Club Anthropology Camp, July 16–20

Session III: Life Cycles Biodiversity Camp July 23–27

Session IV: Destination: Space Astronomy Camp, July 30–August 4

For more information, please call Ellen Silbermann at (212) 769-5079.

AMNH wishes to thank the Howard Hughes Medical Institute for its support of this program.

Members' Open House

Contributor and higher level Members enjoyed the annual Members' Open House on Tuesday, March 20. Scientists from the Divisions of Anthropology, Invertebrate Zoology, Paleontology, and Vertebrate Zoology discussed their work and presented fascinating specimens from the collections to Members during this special evening.

Photos by Rod Mickens.

AYDEN PLANETARIUM RESENTS...

is lecture takes place in the Hayden anetarium Space Theater. A short sky ow will be presented using the Plane-rium's Zeiss Mark IX star projector llowing the lecture. Bring your binoc-ars! Weather permitting, there will be lescope observing on the Ross Terrace.

ontiers in Astrophysics: What's e Matter in the Universe?

. Vera Rubin—astronomer at the arnegie Institute in Washington D.C.
onday, June 4, 7:30 p.m.
o ($8 Members, students, seniors)

. Rubin has been a pioneer in the study the structure of galaxies, and of dark atter in the cosmos. Her research, gether with the work of others, has lped to show that over 90% of the atter in the Universe emits no light of y kind. Dr. Rubin will describe the part the Universe that is visible, and scuss the progress so far in the effort unravel the nature of the invisible niverse. This lecture is co-sponsored by e New York Academy of Sciences.

MEMBERS' PROGRAMS CONTINUED

Storytelling in the Hall of Mexico and Central America

Thursday, June 21
6:30 p.m.

Children and their families are invited to a special evening of storytelling in the Hall of Mexico and Central America. Master storyteller Regina Ress tells pre- and post-conquest myths, legends, and folk tales.

Hall of Mexico and Central America
Cost: $12–Members Only
Code: MM6-7

Walking Tour of Chinatown

Thursday, June 28
1:00 p.m.

Join Sinologist Ed Morris and explore the concept of the Tao, or way of nature, in Chinatown.

Cost: $25 Members,
$30 Non-Members
Code: MM6-5

From Menohhunnet to Manhattan: An Archaeological Journey Through Lower Manhattan

Saturday, June 30
10:00 a.m. and 2:00 p.m.

Archaeologist Susan Dublin, formerly of the Museum's Division of Anthropology, leads this tour to Manhattan's historic and prehistoric archaeological sites.

Cost: $20 Members, $25 Non-Members
Code: MM6-6

Fragment of a Mayan urn AMNH.

summer institutes

SUMMER PROFESSIONAL DEVELOPMENT FOR EDUCATORS: Institutes and On-line Seminars

This summer's Educators' Institutes and online Seminars on Science demonstrate the reach of the American Museum of Natural History across the curriculum. Teachers, supervisors, and college educators will have opportunities to interact with Museum scientists and educators to enhance their knowledge and review and develop new curriculum and course materials.

These professional development opportunities transform the Museum into a resource for teaching and learning and professional growth and enjoyment. The agendas include keynote addresses from our scientists; workshops and roundtables by experienced educators who integrate the Museum in their work; extensive study in the Museum Halls; and exposure to Museum collections. They also take full advantage of the Museum's full array of print and on-line educational and scientific resources.

This summer, there will be four different Institutes, each organized around questions and themes that respond to local and national education standards for K-12 inquiry-based instruction.

The Genomic Revolution in Our Lives and in the Curriculum

July 5, 6 (3:00-8:00 p.m.) and
July 7 (10:00 a.m.–3:00 p.m.)
This Institute will use the exhibition, *The Genomic Revolution*, and work of Museum biologists as centerpieces in the study of heredity, reproduction, life cycles, and DNA. The Institute will foster scientific thinking and develop connections between science and society by posing questions such as, How do genes shape identity? Why are we sequencing the genome?, and How will medicine change in the genomic age? The exhibition's Genomic Learning Laboratory, a fully outfitted, teaching laboratory, will be one focal point of this insititute.

Museum Studies of World Cultures

July 25, 26, and 27 (3:00–8:00 p.m.)
Museum Studies of World Cultures integrates content from social and global studies, the arts, and geography by using the extensive anthropological museum resources and approaches to study cultures. Cultural Halls of Pacific, Asian, African, Mexican, Central, and South American Peoples, Eastern Woodlands and Plains Indians will be central to the institute. There will be daily artistic and cultural performances; and discussions of upcoming exhibitions, *Meeting God: Elements of Hindu Devotion*; *Pearls*; and *Vietnam* (2001-02).

July Institutes require registration by June 15, 2001, Cost $175. Please call (212) 769-5200.

Hands-On-Universe Summer Training for Math, Science, and Technology High School Educators

July 30–August 5 (10:00 a.m.–5:00 p.m.)
This Institute is a collaboration between the Rose Center for Earth and Space and the Lawrence Hall of Science at the University of California at Berkeley. The program prepares educators to use real-time data through an Internet-based program that enables students to request observations from automated telescopes, download images from large image archives, and analyze them with the aid of user-friendly image processing software. Selected participants receive stipends and school resources throughout the year in addition to access to the Museum's astrophysics resources. On-line application process at *http://hou.lbl.gov*

For more information at AMNH contact Jenny Greene at (212) 313-7918.

Biodiversity Institute for Middle and Secondary Life Science Teachers

July 30–August 11 (9:00 a.m. – 5:00 p.m.)
This is the third year of a collaborative between AMNH, The Woodrow Wilson Foundation, and Pace University to support New York State curriculum implementation. The first week of the Institute is designed as a research experience for teachers working with scientists at Pace University. The second week is dedicated to the design of investigations and projects that integrate formal and informal settings to implement the New York State Living Environment Curriculum. Selected participants receive stipends. Online application process at *http://www.woodrow.org/teachers/commuter* or call (609) 452-7007.

The American Museum of Natural History gratefully acknowledges The Greenwall Foundation and the Lita Annenberg Hazen Foundation for their support of the Genomic Revolution Institute; and the Woodrow Wilson Foundation for the Biodiversity Institute.

MINARS ON SCIENCE

-Week Online Science Courses for K-12 achers Authored by Leading AMNH entists and Educators

ese six-week on-line seminars provide achers with new insights into scientific quiry, tools, and techniques as they get opportunity to "look over the oulder" of a Museum scientist and vestigate some fundamental questions ross a range of disciplines. Offered rough Classroom Connect/Connected iversity, the largest national provider K-12 Internet resources, teachers can ke these courses for CEUs and graduate edit. Registration and information: *tp://cu.classroom.com*

rth: Inside and Out

ne 11–July 22

useum scientists Edmond Mathez d Rosamond Kinzler, Curators of the ttesman Hall of Planet Earth, co-thored this seminar, which asks ucators to look at the world through ologists' eyes and through geological ne, using the Hall as a classroom and e world as a lab.

enetics, Genomics, and Genethics

ne 18–July 29

in Museum scientists Rob DeSalle and audia Englbrecht in discussions on any of the questions we will all face in e Age of the Genome.

ow to Think About Life in the niverse

ne 18– July 29

in Museum scientist James Sweitzer in s exploration and research to better efine our search for life in the Universe d the many still unanswered questions r astrobiologists.

iversity of Fishes

ne 18–July 29

rough the study of fishes with Museum ientists Melanie Stiassny and Adriana quino we will explore issues of evolu-on, biodiversity, ecosystems, and ogeography.

Two New Books from the Museum

Roy Chapman Andrews led "the most celebrated fossil-hunting expedition of the twentieth century," wrote John Noble Wilford of *The New York Times*. This expedition—actually five expeditions that ran from 1922 to 1930—took Andrews and his AMNH team to one of the remotest and least known areas of the earth, the Gobi Desert of Outer and Inner Mongolia.

Andrews drove across the uncharted sands in automobiles supported by caravans of camels, some of them carrying gas, oil, and spare parts for the cars. Sandstorms, robbers, civil war, and political intrigue raged about his team as it pursued its destination—the mountains and dunes of the desert where, Andrews hoped, he would find the evidence that supported then AMNH President Henry Fairfield Osborn's theory that Central Asia was the cradle of mankind.

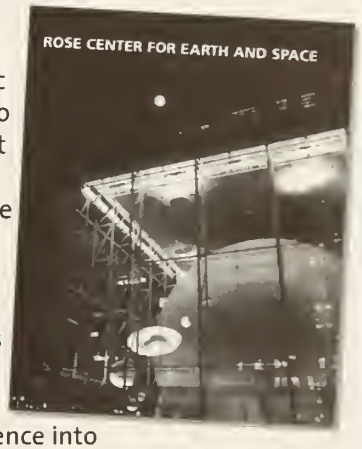
Luck as much as anything else led Andrews to some of the most dramatic and important paleontological discoveries of the twentieth century—nests with dinosaur eggs, the *Velociraptor* and the *Protoceratops*, remains of prehistoric mammals, as well as information on the flora and the fauna of the Gobi—although he never found any human remains.

But science was not Roy Chapman Andrews' whole story. Indeed, according to Michael Novacek's compelling Foreword, he was "only a mildly accomplished scientist." What Roy Chapman Andrews brought to science and to the American Museum of Natural History was the thrill of scientific adventure and discovery. Dashing and bold, resourceful and tough, Andrews mixed in politics and espionage and also enjoyed the luxuries of the drawing rooms and dining rooms of the well-placed in New York and Beijing.

The result of ten years' work, *Dragon Hunter* tells this fascinating and complex story. This is the first full-blown biography of Andrews; sixteen pages of archival photos plus maps and drawings illustrate the book.

Charles Gallenkamp, author of *Maya: The Riddle and Rediscovery of a Lost Civilization*, is a writer and archeologist living in Santa Fe. He will be lecturing at the Museum on June 4 at 7:00 p.m.

Rose Center for Earth and Space tells the story of the Museum's newest venture, the magnificent scientific, architectural, and technological achievement of the Rose Center. Starting in the Hall of the Universe, the book takes you through the Hayden Planetarium, down the Cosmic Pathway, and into the Hall of Planet Earth. It also takes you into the architecture of the Rose Center and the technology that fuels the cutting-edge exhibits as well as brings live science into the Museum.



A handsome large-format book, *Rose Center* has more than 100 color photos—some never published before—taken in the halls and in the field during research expeditions in addition to sweeping photographs from deep space. From the farthest reaches of the universe to the depths of the ocean and inner Earth, the Rose Center tells the story of our planet in lucid prose and gorgeous photography and design.

Dragon Hunter (Viking, $29.95) and *Rose Center for Earth and Space* (Abrams, $14.95 special Museum price) are available in the Museum bookstores.

museum notes

Birthday Parties at the Museum

Dive through 20,000 leagues of birthday fun for this voyage into the deep sea to search for Underwater Treasures, where the birthday child and friends examine the wonder of life beneath the waves. The Master Mariner and his or her first mates will spot a broad spectrum of sea creatures—from octopi and giant squids to hammerhead sharks and dolphins.

Linda Kaye's Birthdaybakers, Partymakers bring a winning combination of education and entertainment to AMNH with five different exciting themed parties to transform your child's birthday into an unforgettable event. Choices include Safari Adventure, Dinosaur Discoveries, Global Mysteries, the Cosmic Blast-Off, and the Underwater Treasures, as highlighted above. Parties are geared to children ages five and up, are planned seven days a week, and are available to Contributor and higher level Members only.

For more information, please contact Partymakers at (212) 288-7112.

Members' Special

In June, Restaurant Associates offers AMNH Members our Fruit and Cottage Cheese Platter at an introductory price of $3.50. That's a savings of $1.00 off the regular price of $4.50. The platter includes a serving of cottage cheese and fresh seasonal fruit. Adults and children are sure to enjoy this refreshing and nutritious selection.

As always, Members of the Museum receive a 15% discount at the Museum Food Court, Café on 4, and Café 77. To obtain a discount, simply present your membership card at the start of your transaction.

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.

Rose Center
June 4, 5, 11, 18,19, 25: 12:45 p.m.

Incredible Dinosaurs
June 9: 11:45 a.m.

The Search for the Nile
June 9: 1:45 p.m.

The Wonderful World of Gems and Minerals
June 8, 15: 11:45 a.m.

The Original Lost World Tour
June 17: 1:45 p.m.

This tour is based on the book by Sir Arthur Conan Doyle. We will see dinosaurs and many more fascinating animals.

Dragons
June 23: 1:45 p.m.

Ray Barretto

Friday Jazz

Starry Nights: Fridays Under the Sphere, a weekly series of live jazz at the Rose Center for Earth and Space continues in June with performances every Friday by Ray Barretto and New World Spirit.

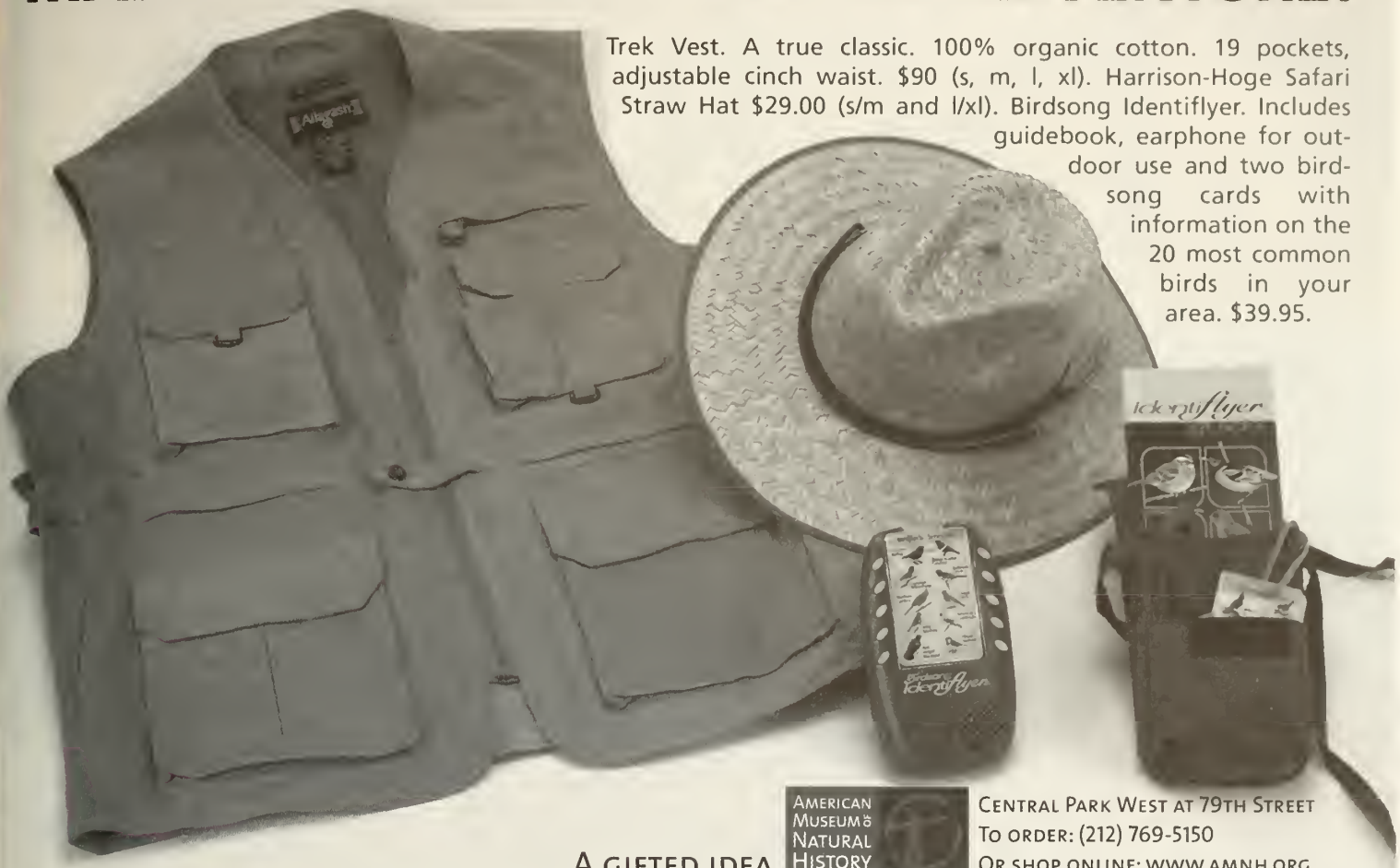
The band will play one-hour sets at 5:45 p.m. and 7:15 p.m. Cash bar and tapas are available. Call (212) 769-5100 for more information.

Members' Special Discount Day at the Museum Shops

On Sunday, June 10, from 10:00 a.m. to 5:45 p.m., the Museum Shops will offer an additional 10% off their normal 10% Members' discount, giving Museum Members a **one-day discount of 20%**. Take advantage of this perfect opportunity to purchase a gift for that special Father before June 17th.

Offer does not include scientific instruments.

MAKE THIS FATHER'S DAY AN ADVENTURE!



Trek Vest. A true classic. 100% organic cotton. 19 pockets, adjustable cinch waist. $90 (s, m, l, xl). Harrison-Hoge Safari Straw Hat $29.00 (s/m and l/xl). Birdsong Identiflyer. Includes guidebook, earphone for outdoor use and two birdsong cards with information on the 20 most common birds in your area. $39.95.

A GIFTED IDEA.

AMERICAN MUSEUM ö NATURAL HISTORY

CENTRAL PARK WEST AT 79TH STREET
TO ORDER: (212) 769-5150
OR SHOP ONLINE: WWW.AMNH.ORG

Celebrate the Wonders of Nature and Man on an Extraordinary Around the World Expedition by Private Jet

Amazon Rain Forest • Galápagos Islands • Easter Island
Samoa • Great Barrier Reef • Papua New Guinea • Borneo
Kathmandu & Tiger Tops Lodge • Seychelles
Serengeti Plain • Canary Islands

AMERICAN MUSEUM ö NATURAL HISTORY
DISCOVERY TOURS

Join us as we circle the globe aboard a private Boeing 757 experiencing many of the world's most unusual plants, animals, and habitats.

Led by Dr. George Amato, Co-Director of the Museum's Conservation Genetics Program at the Molecular Systems Laboratory, Peter Bobrowsky, Earth scientist and co-leader of two UNESCO projects, and Edmundo Edwards, archaeologist and authority on eastern Polynesian history.

March 13–April 6, 2002
Call (800) 462-8687 or (212) 769-5700
From $36,950

EXPEDITIONS THROUGHOUT THE WORLD WITH DISTINGUISHED SCIENTISTS AND EDUCATORS

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.

Café on 4

Sun.–Thurs.	11:00 a.m.–4:45 p.m.
Fri. & Sat.	11:00 a.m.–7:45 p.m.

Café 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.

Membership Department,
Central Park West @ 79th Street
New York, New York 10024-5192
www.amnh.org

Central Reservation Coupon

Program Name/Date # Members

Rotunda.
American Museum of Natural History
Received on: 05-31-01

Total $

Mr./Mrs./Miss/Ms.

Address

City State Zip

Telephone (Day) (Evening)

Membership No.

❑ Check ❑ Am.Ex. ❑ Visa ❑ MasterCard

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 @ 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 second-floor Roosevelt Memorial Hall entrances (79th Street and Central Park West), or through the West 81st Street Rose Center entrance. Visitors may also enter through the Weston Pavilion on Columbus Avenue at 79th Street.

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

ol. 26 No. 7 July/August/September 2001

Members' Newsletter

the discovery room

70
52
26
. 7
1-Aug
01

American Museum of Natural History

the discovery room

feel the thrill of science firsthand

Families can look forward to a new must-see destination at AMNH's newly-opened Discovery Room, a permanent installation offering children, teens, and their families the chance to get their hands on ingenious puzzles and games, real specimens, ancient fossils, scientific instruments, and modern and traditional artifacts representing cultures from Brooklyn to Bombay. This 2,000-square-foot interactive area offers visitors a gateway to the wonders of AMNH and a behind-the-scenes look at the Museum and its science. Every major field of Museum research is represented in the Discovery Room, from anthropology and astrophysics to paleontology and plate tectonics. The space is designed as a jumping-off point for families to experience the Museum. It's the beginning of a journey of discovery.

Top: Father and son try out a Royal typewriter.
Below: A young scientist discovers the Microscope Lab.

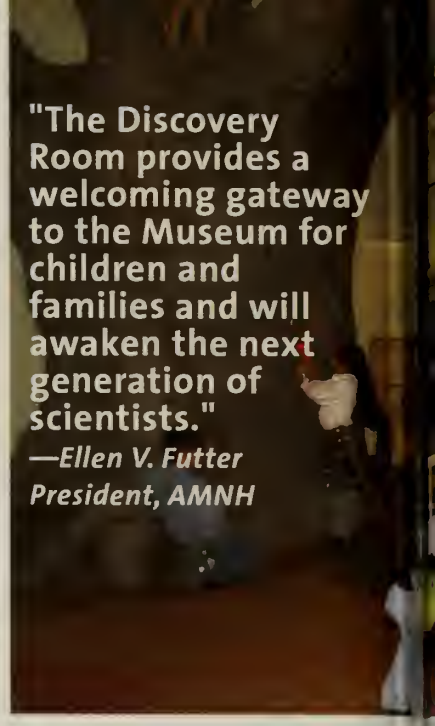
"The new Discovery Room is an engaging, treasure-filled resource that introduces our young visitors to the very heart of this institution—exploration and discovery—in a way that invites inquiry, spurs curiosity, and encourages laughter and delight," said Ellen V. Futter, President of the American Museum of Natural History. "The Discovery Room provides a welcoming gateway to the Museum for children and families and will awaken the next generation of scientists."

The Discovery Room was made possible by a grant from the Edward John Noble Foundation. It will be known as "Yoke's Room" in honor of Frank Y. Larkin, a Museum Trustee and Vice Chairman of the Noble Foundation, in recognition of his passion for inspiring young people to explore and discover the wonders of our world.

The main floor of the Discovery Room is divided into three distinct areas—Biodiversity, Anthropology, and Paleontology. The Mezzanine level, which is geared toward older children and teens, features a Seismology Lab, Microscope Lab, Astronomy Lab, and Resource Room.

"The Discovery Room is much more than a 'please touch' playground for kids; it's an introduction to the Museum in microcosm, building on the depth and scope of the Museum's own scientific staff of over 200, their research and collection of 32 million artifacts and specimens," said Myles Gordon, Vice President for Education.

Children, accompanied by adults, can explore each area, solve an array of puzzles, sort and classify artifacts and specimens, and tackle scientific challenges.



"The Discovery Room provides a welcoming gateway to the Museum for children and families and will awaken the next generation of scientists."
—Ellen V. Futter
President, AMNH

In Biodiversity, children can hunt for hidden creatures in a majestic two-story replica of an African baobab tree covered with tropical animal specimens and models. Exhibition staff have created and installed a number of colorful and meticulously accurate creatures, including a chameleon, several swallowtail butterflies, a Wahlberg eagle, a bush baby, dung beetles, two fruit bats, and a nest of naked mole rats. A canvas tent on the side of the tree allows young naturalists to peek inside and see field video footage tracing the development of a hornbill bird family from nest building to fledging. Museum facilitators are available to guide visitors through special activities, including finding the age of a simulated milk snake by comparing its length and weight, or examining tern nests to investigate nesting behavior—in a similar manner to Museum scientists working in the field.

In the Anthropology section, children can gather around a Kwakiutl totem pole carved at the Museum in 1992, or learn about cultures from around the world by investigating a large collection of traditional and contemporary artifacts; and related information on a specially designed computer database. They can also type out messages on an old Royal portable typewriter (pictured), an object

Children and adults engage in diverse activities in the Discovery Room. All Photos M. Carlough.

a exotic to today's kids as the Southeast A an baby carrier on a nearby shelf. L els tell the story behind many of the c jects on display, from the cultural sig- r icance of a Korean first birthday suit, t bronze baby shoes, to a toy motor- c le made in Africa from recycled tin c s. Families can consult a database c the all objects for more background i ormation and some videos showing t artifacts in the context of their c tures.

Paleontology, young scientists can a semble the cast skeleton of a E stosuchus—a 14-foot-long reptile f m the late Triassic period. The 200- p s resin fossil bones that make up the s leton are held in place on a metal a nature by small but powerful mag- r ts. Children can also handle real f sils, ranging from a 400-million- y ar-old trilobite to a cross section of a r stodon tusk. Kits containing goggles, a hisel, and a brush are available for k ls who want to "unearth" an Oviraptor r st in a simulation of a paleontology f ld site. The dig site is a copy of the " g Mama" nest found by Museum s entists in the Gobi Desert in 1994 and r created on the fourth floor Fossil Hall.

U stairs, on the Mezzanine level, older k ls and families can analyze astronom- i l images from land-based and satel- l e-mounted telescopes to hunt for s pernovae in the Astronomy Lab. T is research is part of the nationwide Hands-on Universe Project organized by the Lawrence Hall of Science in Berkeley, California. At the Seismology Lab they can track an earthquake anywhere in the world on computer monitors and a working three-drum seismograph by tapping into the Incorporated Research Institutions for Seismology (IRIS), a network with active monitoring stations at earthquake "hotspots" around the globe. A "Locate the Earthquake" activity invites visitors to analyze seismic waves to track an earthquake epicenter in the same way as working scientists. At the Microscope Lab (pictured), young scientists can explore the phenomenon of insect mimicry, examine the evolutionary relationships of fish, search for microscopic fossils, and conduct other experiments using state-of-the-art microscopes. A polarized light microscope for rock and mineral analysis can magnify samples up to 400 times. There is also a resource room for families and teachers with online resources, books, and videos that can help enrich and extend a visit to the Museum.

Throughout the Discovery Room, adults and children can play with an assortment of activities designed especially for the exhibition, including a puzzle about fossil formation, match-the-specimen games, and a classification wheel that begins with a ladybug at the center and extends to ever larger insect groups at the outer rim. Children are encouraged to hunt for six tiny "hidden treasures" located throughout the Discovery Room. These small items come from the private collections of Museum staff and, like most of the contents of the Discovery Room, they serve as a steppingstone leading young visitors to uncover other "treasures" in the Museum.

The Discovery Room opens daily at 10:30 a.m.

The Discovery Room was made possible by a grant from the Edward John Noble Foundation. Additional support provided by the honorable Ronnie Eldridge, member of the City Council of New York.
Cover image Holley Flagg, 2001.

rotunda

ISSN 0194-6110
Vol. 26, No. 7 July/August/September 2001

Mark Shoffner, *Editor*
Sandi Frank, *Copy Editor*
Rosemary Caulk, *Director of Membership*
Lynn DeBow, *Vice President for Development and Membership*
Ellen V. Futter, *President*
Lewis W. Bernard, *Chairman*

rotunda is published bimonthly, except for a combined issue in July/August/September and a single issue in December, 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*. ©2001 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.

meeting God: elements of Hindu devotion

September 8, 2001-February 24, 2002

The exhibition *Meeting God: Elements of Hindu Devotion* is a window into the third largest religion in the world. One in six human beings is a Hindu, and two million Hindus live in the United States. Yet most Americans are unaware of the basic tenets of this worldwide religion. This exhibition at the American Museum of Natural History in New York is intended to educate people about the common beliefs and rituals that guide daily experience for close to one billion people. The show will offer the visitor an intimate portrait of Hinduism, by recreating the atmosphere of devotion in India and by drawing the viewer directly into the heart of belief, namely that essential moment of worship known as darshan, literally translated as "meeting God."

In the exhibition, more than 75 framed photographs will portray many of the rituals, prayers, customs, and festivals that punctuate daily and seasonal life in India. Architectural elements will transform the Museum gallery into a series of rooms containing wooden shrines brought from different parts of South Asia. Visitors will open the doors to these shrines to reveal the sacred spaces within, as well as the unique variety of icons and devotional items inside, such as offering plates, bowls of holy water, bells, incense holders, and glowing, backlit transparencies of divine images. Each item will reflect the region and sect from which it comes.

The diversity of Hinduism will be further revealed by more than fifty devotional objects chosen from the Museum's reserve collections. In addition, visitors will learn about Hinduism's reverence for nature and community through the installation of a replica of an ancient tree sanctuary. This quiet, contemplative space will be separate from the more vibrant rooms based on other themes, such as festival processions and temple worship. In these rooms, videos taken both in India and during Hindu rituals in the United States will bring a sense of immediacy and contemporary relevance to each area.

As offerings to the Goddess Durga, Jaba grains have been sprouted and placed in baskets beneath a tree worshipped in her honor. Photo Stephen P. Huyler.

Meeting God will portray the experiences of a large segment of humanity for whom every action contains a spiritual component...

Education is a primary purpose of *Meeting God*. Didactic materials, such as text panels, descriptive labels, and diagrams, will be written at a level appropriate for schoolchildren and, at the same time, in a manner stimulating to adults. Educational packets have been developed to send to schools throughout the greater metropolitan area. A 12-minute introductory video, prepared by the Smithsonian Institution in conjunction with an earlier form of the show, will be shown continuously inside the exhibition. The Museum is working directly with members of the Indian community in the tri-state area to provide "explainers" within the show, who will answer the public's questions as they arise. Finally, the Museum will organize and host a lecture series and mini-symposium on Hinduism.

In a very visual and personal way, *Meeting God* will portray the experiences of a large segment of humanity for whom every action contains a spiritual component: the practice of rising early to acknowledge the sacred elements of dawn, the tradition of honoring the spirits within the tools with which one works, the custom of praying to deities that protect the home from harm at night. The entire exhibition will be designed to communicate the breadth and vitality of the reverential experience of Hinduism in India and the United States, from inside homes to temples and festivals.

Hinduism began in the archaic reaches of prehistory and has constantly adapted to the needs of each century

above: A fire ritual conducted in Puri District. Right: Plates of fresh fruit are available outside a Ganesha temple to purchase for offerings. Photos Stephen P. Huyler.

and subculture. Hinduism is indeed a religion of the new millennium, and its adherents are among those vital to the maintenance of science, technology, education, and the arts. This exhibition will emphasize the contemporary relevance of this system of beliefs and its validity to all types of people, from villagers to royalty, from computer technicians to New York City cab drivers, from factory workers to neurosurgeons.

For Hindus, the moment of darshan is a moment of the sublime, when the devotee is transformed and all the confusion and persistent demands of life are rendered less important. Through the exhibition's interactive shrines, artifacts, photographs, videos, sound tracks, and educational material, the museum viewer will also be transformed, able to open his or her mind to understanding the pertinence of this widespread and effective religion.

—Stephen P. Huyler
Guest Curator

A New Look and a New Schedule for *rotunda!*

As Members will note from the beautiful photographs in the current issue, *rotunda* is going full-color.

Starting in September, Members will receive a comprehensive quarterly calendar detailing all of the Museum's programs (see below). In coordination with the new Museum Calendar, we will mail *rotunda* on a bimonthly basis, except for a combined issue in July/August/September and a single issue in December. **Members will receive a total of 7 issues yearly, focusing on Museum news, exhibitions, and Members' programs.**

New Museum Calendar

We are pleased to announce the inaugural issue of the American Museum of Natural History's new Museum Calendar. This quarterly calendar, which begins with the fall issue, will provide our Members and visitors with comprehensive program and exhibition listings. Through at-a-glance monthly calendars and detailed descriptions, you will be able to plan your visits to the Museum for the season. **Look for the new calendar in the mail in early September!**

members' programs

August

MEMBERS' EXPEDITIONS

Philadelphia's Academy of Natural Sciences

Friday, August 3
8:30 a.m.–6:30 p.m.
In 1858, *Hadrosaurus foulkii,* the first American dinosaur, was discovered in Haddonfield, New Jersey, and brought to Philadelphia's Academy of Natural Sciences for study. This event established Philadelphia as the birthplace of Vertebrate Paleontology in America.

Join our expedition to the Academy of Natural Sciences, where the famous specimen is displayed. We'll learn about discoveries past and present in a behind-the-scenes look at the Department of Vertebrate Paleontology, and go on a guided tour of the Wagner Free Institute of Science, founded in 1855 to provide free science education to the public. The Institute's museum, a National Historic Landmark, has not been altered since the nineteenth century. Its perfectly preserved exhibitions afford a unique opportunity to view fossil exhibitions as they looked in the 1880s when Joseph Leidy, one of the fathers of American Vertebrate Paleontology, served as President of the Institute.

Museum Docent Suzi Zetkus will provide commentary about the glorious early days of vertebrate paleontology, and about the scientists who waged furious "bone wars" for the privilege of being the first to claim fabulous discoveries.

Code: MM8-1Cost: $78 Members, $88 Non-Members

Hudson Valley History and Prehistory: A Walking Tour of Croton Point Park

Saturday, August 11
Meeting at Grand Central Station–9:05 a.m.
Meeting at Croton-Harmon Train Station–10:30 a.m.
Croton Point, a site with a 7000-year history of human occupation, juts into the Hudson River approximately 25 miles north of New York City. Archaeologist Susan Dublin will lead us on a journey into the area's historic and prehistoric past. Learn about the Point's nineteenth century vineyards, hear tales of Revolutionary-era intrigue, and visit the remains of Native American settlements, including those of the Algonkian-speaking Kitchawanc people as well as 7000-year-old shell middens. Participants may meet at Grand Central Station or at the Croton-Harmon train station.

Code:MM8-2
Cost: $18 Members; $20 Non-Members
(Does not include train fare to Croton-Harmon.)

Mineral Miracles Tour

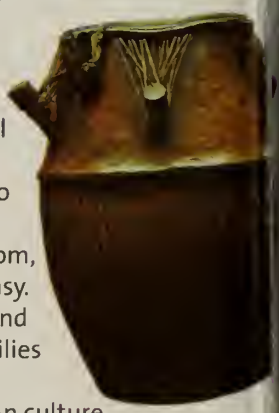
Saturday, August 18, 9:00 a.m.–5:00 p.m.
The famous Franklin-Sterling Hill mining area, considered "the fluorescent mineral capital of the world," is a short drive from New York City. Join geologist Sidney S. Horenstein on this expedition to the area's most spectacular sites. We'll visit the Sterling Hill Mine, a former zinc mine, now on the Register of Historic Sites. We'll see the underground tunnels, learn about mining, and view the renowned display of fluorescent minerals. The next stop will be the Franklin Mineral Museum, where we'll take a rare view of mineral and fossil specimens. We'll end with a rock-hunt at the Museum's collecting area, and an opportunity to return home with your own fluorescent specimens.

Code: MM8-3, Cost: $78 Members, $88 Non-Members

FAMILY PROGRAM

Storytelling for Families in the Hall of African Peoples

Tuesday, August 7
6:30 p.m.



In the quiet evening hours, Joyce Duncan will bring the Hall of African Peoples to life with African folktales of wisdom, power, and whimsy. Children ages 5 and up and their families are invited to experience African culture through rhythms, songs, and movement spiced with riddles and proverbs.

Code: MM8-4–Members Only
Cost: $10 per person

FREE TOURS

Hall of Northwest Coast Indians

Friday, August 17 and Friday, August 24
6:15 p.m.
The Hall of Northwest Coast Indians is devoted to Native Americans who lived in the coastal region from Washington State to Southern Alaska. Join Kathryn Callaghan, Coordinator for Membership Programs, for an in-depth look at this classic hall. We'll learn about the artifacts on display, the people who made them, and about those who collected them.

Code: MM8-5
Cost: Free–Members Only. Advance registration required.

The Earth as a Peppercorn

Saturday, August 11
11:00 a.m.
It's difficult to picture the dimensions of our solar system—the planets are relatively small, and the distances

etween them almost absurdly great. ɔr a model whose scale is true to size ıd distance, it's necessary to step utside. The planet-walk is a 1,000-yard ıodel of the solar system that was evised by astronomer Guy Ottewell. ıuseum docents will serve as our ɔsmic guides, taking participants on a urney of discovery that covers the solar stem and beyond.

ɔde: MM8-6
ɔst: Free–Members Only. Advance egistration required.

eptember

EMBERS' LECTURES

ildlife of India

ednesday, September 19
oo p.m.
e Indian subcontinent is a region of mmense natural diversity, spanning rtually the entire spectrum of natural bitats from hot deserts and grasslands rain forests, high mountain tundra, and angrove swamp. The multiplicity of bitats sustains a wealth of wild-e—India boasts one of the richest semblages of fauna and flora in the world. Paradoxically, this natural wealth survives in a country that is both poor and desperately overcrowded. The survival of Indian wildlife is a consequence of a deep-seated respect and even reverence for all life that permeates Indian culture.

Join Indian naturalist Hashim Tyabji and Toby Sinclair, naturalist and author of more than 20 books about the subcontinent, for a discussion about the future of India's wildlife.

Tyabji and Sinclair will discuss how India's exploding population and surging economy threaten to erode the traditional respect for nature, as well as the efforts being made to protect India's threatened species.

Kaufmann Theater
Code: MM9-1
Cost: $10 Members, $12 Non-Members

The Story of the Man Who Made the Map That Changed the World

Friday, September 28
7:00 p.m.
Join author Simon Winchester for a look at one of history's most unjustly neglected scientific geniuses. William Smith was a canal and mine engineer from Oxfordshire, England, whose research in paleontology and the stratigraphy of rock formations proved to be the foundation of modern geology. Smith's discoveries, along with the geological map over which he toiled for years, stand among the great scientific advances of the late eighteenth and early nineteenth centuries. Yet during most of his lifetime, the scientific establishment neglected Smith, who lived hand-to-mouth, even spending time in debtors' prison. Winchester celebrates the work that carried Smith tens of thousands of miles on the journey of a lifetime.

Simon Winchester.

Simon Winchester is an author, journalist, and BBC broadcaster. He has written numerous books including the best-selling *The Professor and the Madman: A Tale of Murder, Insanity, and the Making of the Oxford English Dictionary. The Map that Changed the World* is his latest book.

Kaufmann Theater
Code: MM9-2
Cost: $10 Members, $12 Non-Members

MEMBERS' EXPEDITION

New York City Historic Sites and their Geological Settings

Saturday, September 22
9:00 a.m.–5:00 p.m.
Join Sidney S. Horenstein, Coordinator for Environmental Programs, on this all-day trek to visit Manhattan historic sites. Traveling by subway, we will visit numerous sites from the northern tip of Manhattan to Battery Park, including the Dyckman house, Audubon Terrace, the Morris-Jumel mansion, Hamilton Grange, Grant's Tomb, the Roosevelt House, Federal Hall, and Castle Clinton. We will hear from Parks Department staffers about the sites' histories and enjoy remarkable opportunities to view Manhattan's natural beauty and geological features.

Code: MM9-3, Cost: $36–Members Only

members' programs

MEMBERS' TOUR

Behind-the-Scenes in the Frozen Tissue Lab

Tuesday, September 25
6:30, 7:00, and 7:30 p.m.
Meet the scientists who are creating a natural history collection for the twenty-first century. We will discover the Museum's brand-new facilities for storing frozen animal tissues, a repository for non-human comparative genomics. Rob DeSalle, Curator in the Division of Invertebrate Zoology and of the special exhibition *The Genomic Revolution*, will discuss his own work in the areas of comparative genomics and conservation genetics. Then we'll venture into the laboratory with Bob Hanner, Curatorial Associate and Manager of Genetic Resources, who will show us around the ultra-cold liquid nitrogen storage facility and explain how these new collections will enable scientists to carry out genetic and molecular research.

Code: 6:30 p.m. MM9-4A; 7:00 p.m. MM9-4B; 7:30 p.m. MM9-4C
Cost: $25–Members Only

FREE HALL TOUR

Is Anybody Out There? The Search for Life in Other Worlds

Friday, September 7 and
Friday, September 14
6:15 p.m.
What kinds of environments may sustain life? How are scientists looking for life on other planets? Museum Docents Donna Walcavage and Larry Basset examine the richness of life on Earth and the search for life in other worlds.

Code: MM9-5 Registration Required.
Cost: Free–Members Only

October

MEMBERS' LECTURES

Evolution: The Triumph of an Idea

Tuesday, October 2
7:00 p.m.
Although considered one of the most important scientific discoveries of all time, evolution remains controversial, widely misunderstood, and under-appreciated as a framework for understanding life. Carl Zimmer sets th record straight as he relates the history the idea of evolution, and its far-reachi implications.

Evolution: The Triumph of an Idea, is Zimmer's latest book. It is the companic volume to the PBS series appearing this fall.

Kaufmann Theater, Code: MM10-2
Cost: $10 Members, $12 Non-Members

In the Company of Gorillas

Thursday, October 18
7:00 p.m.
Mountain gorillas teeter on the edge of survival. Beginning with her own studie of mountain gorillas in Rwanda more than 20 years ago, and continuing through the effects of war to date, Dr. Amy Vedder, co-author of the book, *In th Kingdom of Gorillas: Fragile Species in a Dangerous Land*, will give a personal account of their trials and the results of efforts to save them—a story both compelling and uplifting.

Kaufmann Theater
Code: MM10-3
Cost: $10 Members, $12 Non-Members

The Evolution Explosion

Tuesday, October 30
7:00 p.m.
Stephen Palumbi of Harvard University discusses dramatic examples of rapid evolution caused by human intervention He argues that understanding evolution—and why it can happen so quickly—is a key to gaining control of ou arms race with pests and diseases.

The Evolution Explosion is his latest book

Kaufmann Theater
Code:MM10-4, Cost: $10 Members, $12 Non-Members

Dr. Amy Vedder with gorillas.

MEMBERS' EXPEDITION

Members' Fossil Collecting Expedition

Saturday, October 13 and Sunday, October 14

Journey into New York's geologic past, collect your own fossil specimens, and enjoy the glories of autumn upstate on this two-day Members' Expedition.

Howard Feldman, of the Museum's Division of Paleontology and specialist in Hudson Valley paleontology, will accompany the group. On Saturday, we'll visit Hudson Valley sites. Moving on to the charming town of Hamilton, New York, we'll spend the night at the historic Colgate Inn, established in 1925.

On Sunday Morning, the fossil dig begins. Staff from the Paleontological Research Institute in Ithaca, New York, will lead the collecting expedition. We will learn how to find and identify the remains of animals deposited on the bottom of an ocean hundreds of millions of years ago!

Code: Double Occupancy MM10-1A; Single Occupancy MM10-1B–Members Only

Cost: $295 Double Occupancy.
No Single Supplement. Includes transportation by private chartered motorcoach, one night accommodation, and one dinner, breakfast, and lunch.

From Inwood to Spuyten Duyvil via the Henry Hudson Bridge

Saturday, October 27
10:00 a.m. – 2:00 p.m.

Geologist Sidney Horenstein will lead us from Inwood Hill Park to Spuyten Duyvil in the Bronx via the little-walked Henry Hudson Bridge. We'll visit a hidden pond, take in some splendid vistas, find out how Spuyten Duyvil got its name, and see the oldest rocks in New York City.

Code: MM10-5, Cost: $36–Members Only

FREE HALL TOUR

Horsepower!

Friday, October 19 and Saturday, October 20, 6:15 p.m.

Join Museum docent Suzi Zetkus for a close look at the evolution and domestication of the horse, as seen in the Museum's exhibitions.

Code: Friday MM10-6A; Saturday MM10-6B
Cost: Free–Members Only

FAMILY PROGRAM

The Haunted Gingerbread Mansion

Saturday, October 20
11:00 a.m. and 2:00 p.m.

The 11th annual Members' gingerbread workshop takes a spooky turn this year! Celebrate Halloween by constructing a no-bake haunted mansion using only the most delicious materials. Artist and consultant June Myles will be on hand to assist us with construction.

Code:MM10-7
Cost: $45

PREVIOUSLY LISTED

Members' Expedition: The Pequot Museum

Saturday, July 21
8:30 a.m.–5:30 p.m.

Learn about Native America from ancient times to the present on this expedition to the tribally owned and operated Pequot Museum in Mashantucket, Connecticut.

Code: MM7-1
Cost: $88 Members, $98 Non-Members
(Includes lunch and transportation by private charter motorcoach.)

Kid's Culinary Contest

Restaurant Associates and the Membership Department are forming a Kid's Culinary Council. Comprised of children of AMNH Members, ages 8 to 13, with a passion for cooking and/or eating, members will serve a one-year term and meet with the Executive Chef once every four months. The Council will be invited into the main kitchen of the Museum Food Court (voted best Kid's Cafe by *New York Magazine*) to join the Executive Chef in overseeing food preparation, conduct tastings, and make recommendations for new menu items—especially for kids.

Children are invited to submit a recipe inspired by the Museum. A panel of judges consisting of the RA Executive Chef, Sous Chef, and other Museum staff will review all submissions and select the winners. Kids' Culinary Council members will be chosen on the basis of the following criteria:

Creativity
Presentation
Recipe that most closely relates to AMNH

Members of the Kid's Culinary Council will receive:
$25 Space Dollars good for purchases in the Museum Food Court
$15 Museum Shop Gift Certificate
Kid's Culinary Council Apron

Kids enjoying Space Cookies at AMNH.
Photo C. Chesek.

Recipes must be received no later than August 31, 2001, and be accompanied by a photograph of the prepared dish. Entries, along with your name, member number, and daytime telephone number should be mailed to:

American Museum of Natural History
Membership Department
79th Street at Central Park West
New York, NY 10024

Winners will be contacted by September 30, 2001.

museum notes

Birthday Parties at the Museum

Birthdaybakers, Partymakers bring a winning combination of education and entertainment to AMNH with five different exciting themed parties to transform your child's birthday into an unforgettable event. Choices include Safari Adventure, Dinosaur Discoveries, Global Mysteries, the Cosmic Blast-Off, and the Underwater Treasures. Parties are geared to children ages five and up, are planned seven days a week, and are available to Contributor and higher level Members only.

For more information, please contact Linda Kaye's Partymakers at (212) 288-7112.

The Genomic Revolution

Approximately 1,000 guests attended the reception and exhibition viewing of *The Genomic Revolution* on Wednesday, May 23, 2001 from 6:00–8:00 p.m.

Right: Jeff Rodgers, Department of Education, AMNH, and Museum trustee Tom Brokaw, NBC Nightly News, in the Genomic Laboratory.

Bottom: Theodore Danforth, Celera Genomics, Dr. Craig Venter, President and Chief Scientific Officer, Celera Genomics, Heather Kowalski, Celera Genomics, Dr. Ward C. Wheeler, Curator, Division of Invertebrate Zoology, AMNH, Dr. Vivian Pan, President, RRH Capital, and her husband, Dr. Mark A. Norell, Division Chair and Curator, Department of Paleontology, AMNH.

Photos R. Mickens

Summer Special for Members

Restaurant Associates introduces Members to our delicious Spanish Gazpacho soup. A summer specialty, our chilled Gazpacho of tomatoes, cucumbers, peppers, and onions makes for a cooling summer meal. During July, August, and September, Museum Members who purchase a Gazpacho Soup will receive a complimentary choice of whole fruit (a $1.00 value).

Look for the new Ice Cream Café adjacent to the Museum Food Court.

As always, Members receive a 15% discount on all Restaurant Associates purchases. Please show your Membership card at the beginning of your transaction.

IMAX© THEATER SCREENINGS

BEARS

A stunningly filmed, in-your-face look at bears, this IMAX© 2D film will deliver a clear message about the threats to bear populations, including habitat loss and illegal hunting. It will also examine the efforts in North America and Russia to protect the grizzly, the black bear, and others. Seeing these magnificent and surprisingly playful creatures in the glory of their natural habitats will make *Bears* an instant hit for the whole family.

Bears is a National Wildlife Federation and Science North presentation of a Primesco Communications Film.

Imax Schedule starting July 14: *Bears* at 1:15 p.m., 3:05 p.m., and at 5:55 p.m. on Friday and Saturday.

Shackleton's Antarctic Adventure at 2:10 p.m., 4;00 p.m., and at 7:55 p.m. on Friday and Saturday.

Lost Worlds at 5:00 p.m. and at 6:50 p.m. on Friday and Saturday.

Friday Jazz

Starry Nights: Fridays Under the Sphere, a weekly series of live jazz at the Rose Center for Earth and Space continues in July, August, and September. The bands will play one-hour sets at 5:45 p.m. and 7:15 p.m.

Call (212) 769-5100 for more information.

AMERICAN MUSEUM ♁ NATURAL HISTORY
DISCOVERY TOURS

EXPLORING ANTARCTICA
SOUTH GEORGIA & THE FALKLAND ISLANDS

WITH EXTENSIONS TO EASTER ISLAND AND PATAGONIA

Only early in this century did the world learn about the striking beauty, extraordinary wildlife, and powerful natural forces of Antarctica from such pioneering explorers as Amundsen, Scott, Shackleton, and Byrd. They discovered a pristine and fragile ecosystem of enormous icebergs, glaciers, bays, and jagged mountains that supported abundant and intriguing wildlife.

No Antarctic island has wildlife more varied and accessible as South Georgia. Here, isolated nests of wandering albatross overlook crowded harems of Antarctic fur seal, gentoo penguin give way to grazing reindeer, and elephant seal pups lounge on the cobble beaches while king penguin make their way to the sea in seemingly endless lines. The island's history spans from its discovery by James Cook in 1775, through the sealing and whaling eras, to the heroic crossing of South Georgia's mountains by Sir Ernest Shackleton.

January 13 – February 3, 2002

Call (800) 462-8687 or (212) 769-5700
From $11,995

EXPEDITIONS THROUGHOUT THE WORLD WITH DISTINGUISHED SCIENTISTS AND EDUCATORS

NEW *AUDIO TOUR* FOR THE ROSE CENTER

A new seventy-five minute, 34-stop Audio Tour featuring all of the important elements of the Frederick Phineas and Sandra Priest Rose Center for Earth and Space will be available starting at the end of June.

The program will be available in English and Spanish, and features the voices of Neil de Grasse Tyson, Director of the Hayden Planetarium, Jim Webster, Chair of the Museum's Division of Physical Sciences, and other AMNH scientists. There will be a charge of $3 for Members and $4 for Non-Members, and the devices can be purchased at any Museum entrance including the new Audio Tour Kiosk on the lower level of the Rose Center. Please see coupon below for a special Members' offer.

The Audio Tour is made possible through the generous support of Bloomberg.

Actress Ute Lemper recording an audio track for the Space Show. Photo C. Chesek.

THE SPACE SHOW IN SIX LANGUAGES!

The Space Show will be presented in six languages starting at the end of June using a special six-channel headset, free of charge. A number of actors and performing artists recorded the audio program in their native languages: Ruben Blades in Spanish, Jacques Pépin in French, Alberto Angela in Italian, Ryuchi Sakamoto in Japanese, Sonia Braga in Portuguese, and Ute Lemper in German (pictured).

SPECIAL 2-FOR-1 AUDIO TOUR OFFER FOR AMNH MEMBERS

Clip and present this coupon to receive two Audio Tours of the Rose Center at the American Museum of Natural History for the price of one.

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.	10:00 a.m. - 7:45 p.m.

Café on 4

Sun. - Thurs.	11:00 a.m. - 4:45 p.m.
Fri. & Sat.	10:00 a.m. - 7:45 p.m.

Café 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 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.

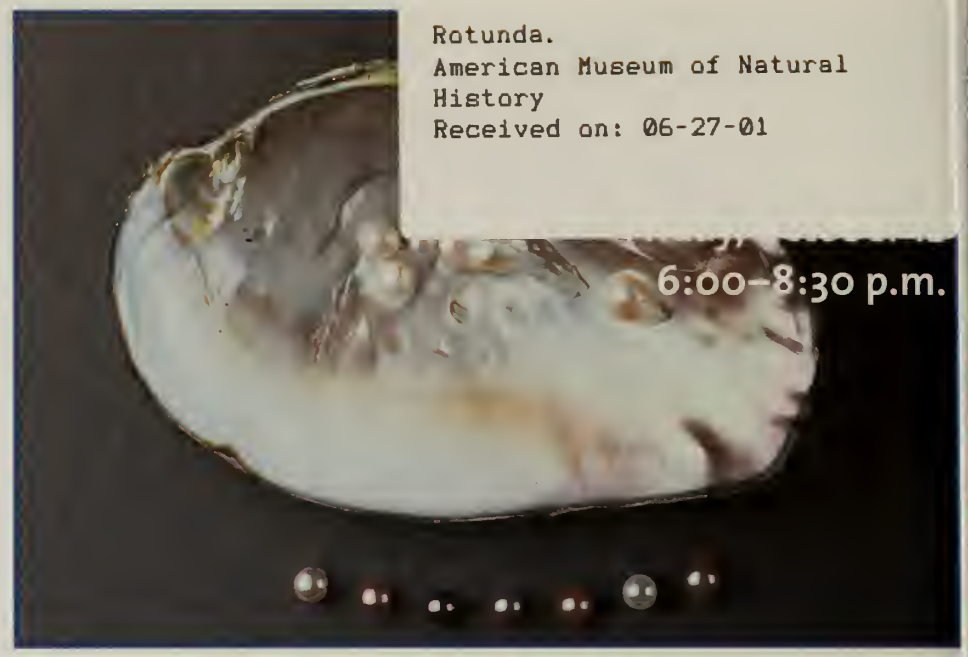
Entrances

During Museum hours, visitors can enter the building through the 77th Street entrance, the 79th Street subway entrance, the second-floor Roosevelt Memorial Hall entrances (79th Street & Central Park West), or through the West 81st Street Rose Center entrance. Visitors may also enter through the Weston Pavilion on Columbus Avenue at 79th Street. Visitors attending programs after hours can enter the building through the security entrance at 79th Street and Central Park West, down the driveway. Tickets can be picked up or purchased at the ticket desk just inside the entry.

Phone Numbers

Museum Information	(212) 769-5100
Membership Office	(212) 769-5606
Planetarium Information	(212) 769-5900
Member Birthday Parties	(212) 769-5013
Education Department	(212) 769-5310
Planned Giving Office	(212) 769-5119
Discovery Tours	(212) 769-5700
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

AMERICAN MUSEUM OF NATURAL HISTORY



Rotunda.
American Museum of Natural History
Received on: 06-27-01

South Seas & Caribbean Seafood Buffet

On October 12, 2001, Restaurant Associates will feature a sumptuous buffet by Executive Chef **Chris DeLuna of Tropica,** the renowned seafood restaurant in Grand Central Station. Chris has worked at some of the great New York restaurants including Room with a View in the Helmsley Park Lane Hotel and the famed Union Square Café.

Chris DeLuna takes you on a culinary feast around the South Seas and the Caribbean. He is sure to delight with his Conch Chowder with Christophene and Okra, Caribbean Mussels with Curry and Coconut, and his Oyster Ravioli with Warm Mango and Papaya, just to name a few! The evening will also feature specially selected wines, and decadent desserts, all included. Please call Central Reservations at (212) 769-5200 to reserve your place at one of our three seatings (5:30 p.m., 7:00 p.m. or 8:30 p.m.).

Cost: Adults $50, Children $25

Membership Department
Central Park West @ 79th Street
New York, New York 10024-5192
www.amnh.org

rotunda

Vol. 26 No. 8 October/November 2001

Members' Newsletter

QH70
.U52
N5
v. 26
no. 8
Oct-Nov
2001

pearls

october 13, 2001–
april 14, 2002

American Museum of Natural History

pearls

by Neil H. Landman, Lead Curator

Queen Conch.
Photo: C. Chesek

Pearls is the most comprehensive exhibit ever put together to showcase these extraordinary gems. The exhibit will cover the natural history of pearls, the animals that produce them, and the role that pearls have played in human culture. Prepared in collaboration with the Field Museum in Chicago, *Pearls* features more than 800 specimens drawn from the collections of both museums as well as natural history and art history museums throughout the world.

The animals that produce pearls are mollusks—one of the most diverse phyla on Earth. There are approximately 100,000 species alive today and there are at least as many fossil species, extending back over 500 million years. Mollusks include clams and snails, as well as cephalopods such as the Pearly Nautilus, squids, and octopus. These animals inhabit a wide variety of habitats, including lakes and rivers, seas, oceans, and land.

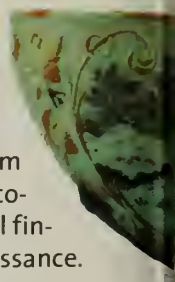
Freshwater mussel with pearls inside.

The visitor is drawn into the exhibit by swimmers diving for pearls. This immersive video experience conveys the underwater world of mollusks and the nature of one of the world's oldest professions—pearl diving. A series of spectacular objects follows—among them a Nepalese royal crown dripping with pearls and emeralds and a pearl-encrusted chalice from the Basilica of San Marco, Venice—to illustrate the historical associations of pearls with royalty, religion, power, and tradition.

The first section of the exhibit treats the composition and formation of pearls. An animation will show how a pearl forms: when a parasite or stray organic particle enters a pearl oyster, the mantle of the oyster secretes calcium carbonate around the particle. On view will be pearls that have formed around crabs and snails trapped inside pearl oysters, and even fish. Scanning electron micrographs will reveal the microstructure of pearls. This microstructure accounts for the optical properties of pearls—their well-known luster and iridescence.

Two main sections cover the species of marine and freshwater mollusks that produce pearls. These include pearl oyster species that inhabit the Caribbean, the Persian Gulf, French Polynesia, and the Indian Ocean. These displays will describe the natural history of these animals and the pearls they produce, using specimens and pearls, together with historically important and beautiful pearl jewelry and art objects. Among the species treated in the marine section is the Queen Conch, a snail known for its beautiful pink to orange pearls (pictured). This section also includes fossil pearls that retain their original luster, some of which date back as much as 100 million years ago (Cretaceous Period). Freshwater species and pearls are represented from China, Japan, Europe, and North America. The United States is home of the most diverse freshwater mussel fauna in the world, but some of these species are, unfortunately, threatened by habitat destruction. Two highlights of the freshwater section are a necklace that belonged to Mary, Queen of Scots, made of Scottish freshwater pearls and another necklace of Bavarian freshwater pearls on loan from the Grünes Gewolbe (Green Vault) in Dresden.

The central gallery features an evolutionary tree of the Mollusca that shows actual specimens and pearls. The ability to produce pearls is widespread in the phylum although gem-quality pearls are restricted to only a few species. The tree is accompanied by two large video screens showing underwater scenes of freshwater and marine species in their natural habitats. The central gallery also contains spectacular pearl objects including jewels from a Middle Eastern royal family and a giant tarantula brooch incorporating a single orange Horse Conch pearl. Paintings of Queen Elizabeth I and Sir Walter Raleigh from the sixteenth century epitomize the splendor of pearl finery in the European Renaissance.



Another section is devoted to the history of pearl gathering and pearl culture (perliculture). We explore the practices in the Persian Gulf and Ceylon, two of the most historically important pearl fisheries in the world. We also cover pearl fishing in the New World prompted by the Voyages of Discovery of Columbus and Balboa. In fact, many of the pearls in the royal treasures of Europe came from American waters in

Join us for the Members' Preview of *Pearls*!

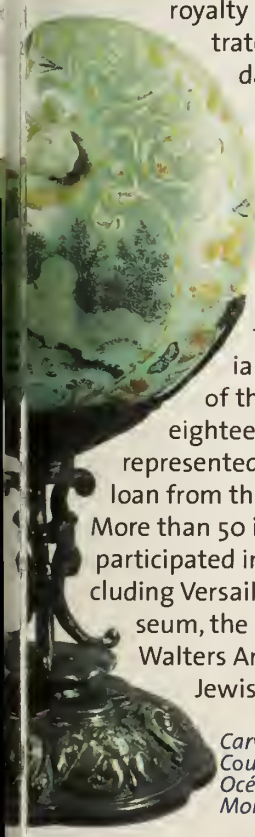
Friday, October 12
6:00–8:30 p.m.

Reservations are required. Please call the Membership Office at (212) 769-5606.

he sixteenth century. Gathering of reshwater pearls also has a long history, and we explore the freshwater isheries in Scotland, Germany, and the Jnited States. Curiously, one of the nost beautiful freshwater pearls ever ound was discovered in a stream in New ersey.

he twentieth century witnessed the development of pearl culturing although here are antecedents as far back as fifth entury China. Carl Linnaeus, the father f binomial nomenclature, experinented with culturing freshwater pearls n Sweden, and some of his early atempts will be on display. Today, pearl ulturing is successfully practiced in nany areas around the world including apan, Australia, Tahiti, China, and Mexco. We will explain the biological basis or perliculture and display some of the nost beautiful cultured pearls produced oday.

he last section is devoted to the role of earls in human history. This theme is illustrated by spectacular cultural objects s well as specimens of pearl-producing nollusks. Pearl artifacts are represented om the Hopewell Culture (300 BC – oo AD) from present-day Ohio, the oman Empire, and Byzantine jewels om the Middle East. The association of earls with religion, wealth, power, and royalty is further illustrated by baroque pendants from the Medici collections from Florence, Italy, and ornate necklaces from the Moghul Empire, India. The pearl splendor of the Russian Imperial Court and Church of the seventeenth and eighteenth centuries is represented by artifacts on loan from the Kremlin Treasury. More than 50 institutions have participated in this exhibit, including Versailles, the British Museum, the Palais Masséna, the Walters Art Museum, and the Jewish Museum, as well as many private lenders to richly illustrate the role of pearls in human culture. The exhibit concludes with an array of spectacular pearls in a wide range of colors—pink, white, black, red, purple, and gold—summing up the beauty and variety of the Queen of Gems.



Carved Nautilus Cup. Courtesy Musée Océanographique de Monaco

Photo: Rüdiger Bieler

Freshwater pearl farm in China.

Neil H. Landman is the Lead Curator of Pearls with co-curators Paula M. Mikkelsen, AMNH, and Rüdiger Bieler and Bennet Bronson, The Field Museum. Pearls is developed in collaboration with The Field Museum, Chicago. The show will run in New York from October 13, 2001–April 14, 2002 and then travel to Chicago where it will run from June 14, 2002–January 5, 2003.

Cover: Triton Pendant with pearls, ruby, gold. Gift of Helen Stillman. Photo: J. Beckett.

The Pearls exhibition is made possible through the generous support of Tasaki Shinju.

rotunda

ISSN 0194-6110
Vol. 26, No. 8 October/November 2001

Mark Shoffner, *Editor*
Sandi Frank, *Copy Editor*
Rosemary Caulk, *Director of Membership*
Lynn DeBow, *Vice President for Development and Membership*
Ellen V. Futter, *President*
Lewis W. Bernard, *Chairman*

rotunda is published bimonthly, except for a combined issue in July/August/September and a single issue in December, 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*. ©2001 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.

Ellen V. Futter receives NASA public service award

On June 21, 2001, Ellen V. Futter, President of the American Museum of Natural History, was awarded NASA's prestigious Public Service Medal by NASA Administrator Daniel S. Goldin. She was presented this medal in recognition of her leadership in advancing the highest quality science education.

Through Ms. Futter's leadership, the American Museum of Natural History is bringing NASA's cutting-edge science to children and families of New York, the nation, and the world through the Rose Center for Earth and Space and the NASA-supported National Center for Science Literacy, Education, and Technology. Her achievements rest on a keen appreciation of the importance of scientific literacy in the twenty-first century and a unique vision for bridging the gap between science and the public.

The American Museum of Natural History and NASA have forged a productive scientific and educational partnership that advances science and scientific literacy nationwide. The National Center for Science Literacy, Education, and Technology is a model partnership that will benefit science education for years to come.

Photo: Dan Goldin, NASA Administrator, and Ellen V. Futter, President, AMNH. Photo courtesy NASA.

Hayden Planetarium teams up with CUNY

The Hayden Planetarium is teaming up with the City University of New York (CUNY) in their efforts to offer undergraduate students the option of studying Space Science as a major.

CUNY has recently been awarded a grant to establish the NASA New York City Space Science Research Alliance. Courses for the Bachelor Degree in Space Science will be given at a number of different colleges within CUNY, including Medgar Evers College, and The College of Staten Island.

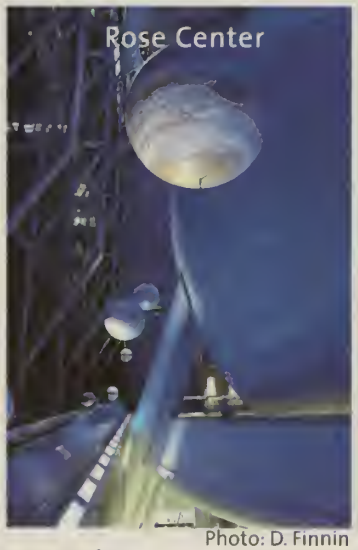


Photo: D. Finnin

Beginning in Fall 2001, the Hayden Planetarium will offer Introduction to Space Science in its line-up. This course will be open to the public as a typical Hayden course, but for students enrolled through the CUNY program, there will be homework and a final exam in order to receive a grade and college credit.

Introduction to Space Science is a specially designed primer of the Cosmos in three sections —Stars, Galaxies, and the Universe—whose syllabus targets the frontier of modern astrophysics. It is a college course that has a prerequisite of high school algebra and geometry, and will emphasize conceptual thinking over memorization, and will use mathematical reasoning freely.

Students will benefit from the extensive professional and educational expertise of Dr. Neil deGrasse Tyson, Director of the Hayden Planetarium and visiting research scientist at Princeton University, as well as from other scientists in the Museum's Department of Astrophysics, who may join in the class discussions.

Subjects include gravitation; orbits; the birth, life, and death of stars; the search for extrasolar planets and for extraterrestrial life (intelligent or otherwise); the zoo of galaxies from dwarfs to giants; from starbursts to quasars; dark matter and the large scale structure of the universe; Einstein's special and general theory of relativity; black holes; and big bang cosmology. Some sessions may be held in the Hayden Planetarium Space Theater.

The three sections will run consecutively over the fall, winter and spring. Each part will meet for eight Wednesday night sessions from 6:30-8:30 pm at the cost of $100 ($80 members/ students/ seniors) per section. Those enrolling through the CUNY program will register at Medgar Evers College.

The fall section begins October 10. Seating is limited. To register, call Central Reservations at (212) 769-5200.

Madagascar: witnessing the total solar eclipse

by Amy Rabb-Liu

AMNH sponsored a Discovery Tour to Madagascar this June. Visits to cultural sites and unique habitats culminated in an incomparable celestial show: a view of the first total solar eclipse of the millennium from a scenic tropical beach. AMNH astrophysicist Dr. Charles Liu and his wife Dr. Amy Rabb-Liu were study leaders for this tour. Below, Amy chronicled some highlights of their adventures in Madagascar.

We arrived in Antananarivo the morning of June 10. After settling into our hotel and enjoying a gourmet lunch, we immediately set out to explore cultural sites around the Malagasy capital. The afternoon's destination was Ambohimanga, the Royal Summer Village. Ambohimanga was built around the birthplace of King Andrianampoinimerina. In the late eighteenth century this king began the process of unifying the tribes of Madagascar into a single kingdom. We visited his original home, saw the enclosures where zebu cattle were fattened before sacrifice, enjoyed the view from the Queen's promenade, and walked through the summer palace. This first day of touring concluded with a Malagasy music serenade and a private welcome dinner. Our explorations of Antananarivo continued with a visit to the Museum of Natural History, where, among other nicely displayed specimens, we saw the skeleton of an extinct elephant bird. Other highlights included the Zoological Park and Botanical Gardens, and a drive to see the stone skeleton of the Rova, the queen's palace, which was lost to arson in 1995.

On the morning of June 12 we set off for the rainforest and amazing encounters with Malagasy wildlife. On our way to Perinet Reserve we passed rural villages with picturesque rice paddies, zebu at work, and people excavating their fields to make bricks. We stopped at La Mandraka reptile farm, where we were able to see and hold an amazing variety of creatures unique to Madagascar, ranging from the tiny mantella frogs to the giant Parson's chameleon. That afternoon at Perinet Reserve we had our first encounters with lemurs. The group visited a small island on which lived troops of black and white ruffed lemurs, bamboo lemurs, and common brown lemurs. It seemed that these particular lemurs were somewhat used to human contact, eating bananas from our fingers and occasionally even leaping onto hats and shoulders.

Our most exhilarating wildlife experiences came during our hike up a rainforest trail early on the morning of June 13. The goal of this hike was to find the Indri—the largest lemurs. Along the way, our guide found and identified an amazing variety of plants: camellia flowers, traveler's palms, pandan palms, and wild ginger, a plant with edible berries (crunchy, slightly tart for our tastes) whose leaves make a stomach remedy tea. Shortly into our hike we noticed a troop of common brown lemurs above us. This was even more exciting than the lemurs on the island —these were truly wild lemurs and we were in their home. The lemurs stayed in the treetops leaping great distances to travel from tree to tree. We continued our journey to the Indri territory.

The Indri are only found in the wild, as they do not survive in zoos. The native name for the Indri is "babakoto," which

continued on page 10

Ring-tailed lemur.

Photo: John Ellett

members' programs

MEMBERS' LECTURE

Curator Lecture: Pearls

Wednesday, October 17
7:00 p.m.
Join the curators for the companion lecture to the Museum's new special exhibition. Neil H. Landman, Curator in the Division of Paleontology, and Paula Mikkelsen, Assistant Curator in the Division of Invertebrate Zoology, will discuss the biological and cultural aspects of pearls. They will also provide an inside view of how the special exhibition was conceived and executed.

Kaufmann Theater
Code: MM11-1
Cost: $10 Members, $12 Non-Members

FREE HALL TOUR

Margaret Mead

Friday, November 16 and Saturday, November 17, 6:15 p.m.
Celebrate the 100th anniversary of Margaret Mead's birth. Museum Docent Suzi Zetkus leads this hall tour focusing on Mead's work at AMNH.

Code: Friday–MM11-2A, Saturday–MM11-2B
Cost: Free–Members Only. Advance registration required.

CHILDREN'S PROGRAMS

Make a Volcano

Sunday, November 11
2:30 p.m.
Not all volcanoes are alike! Children ages 7 and up will learn about different kinds of volcanoes as they create their own eruptible volcano models. Pamela Popeson, artist and former director of the Museum's Fossil Reproduction Department, leads this workshop.

Code: MM11-3
Cost: $25–Members Only

Native American Harvest and the First Thanksgiving

Sunday, November 18
11:00 a.m.
Roast turkey with stuffing, mashed potatoes and gravy, pumpkin pie—these are things that may come to mind when we think of Thanksgiving, but the first Thanksgiving feast probably looked quite different. Children 8 and up, with their parents, are invited to celebrate this American holiday by learning about the mythology and history of the first Thanksgiving. Archaeologist Susan Dublin, formerly of the Museum's Division of Anthropology, will teach you about the connection between Native American harvest festivals and Thanksgiving, as well as how to incorporate Native American foods and cooking into your Thanksgiving celebration.

Linder Theater, Code: MM11-4
Cost: $10 per person–Members Only
Children must be accompanied by an adult.

PREVIOUSLY LISTED

Evolution: The Triumph of an Idea

Tuesday, October 2
7:00 p.m.
Although considered one of the most important scientific discoveries of all time, evolution remains controversial, widely misunderstood, and under-appreciated as a framework for understanding life. Carl Zimmer sets the record straight as he relates the history of the idea of evolution, and its far-reaching implications.

Evolution: The Triumph of an Idea, is Zimmer's latest book. It is the companion volume to the PBS series appearing this fall.

Kaufmann Theater
Code: MM10-2
Cost: $10 Members,
$12 Non-Members

Active volcano in Paricutin, Mexico.

n the Company of Gorillas

hursday, October 18
:00 p.m.

Mountain gorillas teeter on the edge of urvival. Beginning with her own studes of mountain gorillas in Rwanda more han 20 years ago, and continuing hrough the effects of war to date, Dr. Amy Vedder, co-author of the book, *In he Kingdom of Gorillas: Fragile Species in Dangerous Land*, will give a personal ccount of their trials and the results of fforts to save them—a story both comelling and uplifting.

aufmann Theater
ode: MM10-3
ost: $10 Members, $12 Non-Members

The Evolution Explosion

Tuesday, October 30
7:00 p.m.

Stephen Palumbi of Harvard University discusses dramatic examples of rapid evolution caused by human intervention.

He argues that understanding evolution—and why it can happen so quickly—is a key to gaining control of our arms race with pests and diseases. *The Evolution Explosion* is his latest book.

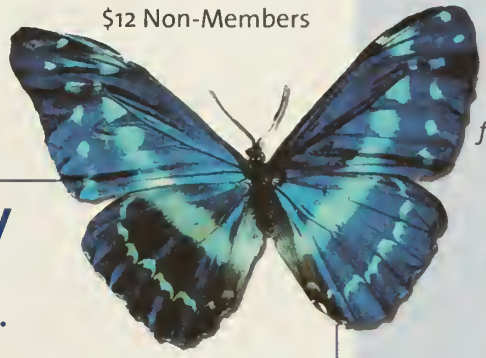
Kaufmann Theater
Code:MM10-4, Cost: $10 Members, $12 Non-Members

The Butterfly Conservatory: Tropical Butterflies Alive in Winter

October 7, 2001–May 28, 2002
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 Butterfly Conservatory: Tropical Butterflies Alive in Winter is made possible by a generous gift from Bernard and Anne Spitzer.

Members' Family Holiday Party

Saturday, December 1, 1:00–4:00 p.m.

Join us in the Museum's Hall of Ocean Life for activities, workshops, and live entertainment. Children will sing along with PBS award-winning folk trio Dave Grover and the Big Bear Band as they perform songs for Chanukah and Christmas.

The event is free and open to Family and Higher Level Members only. Members must register though Central Reservations at (212) 769-5200 in order to attend.

Location: Hall of Ocean Life
Cost: Free–Family and Higher Level Members only
Code: MM12-5

Photo: Sing-along with Dave Grover and the Big Bear Band.

CALL FOR VOLUNTEERS!

The Museum is currently seeking volunteers to assist in the live butterfly exhibition. 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 a regular, two-hour shift once per week in a simulated tropical environment. Both weekday and weekend shifts are available.

If interested, please call the Volunteer Office at (212) 769-5566 for an application, or visit our web site at *www.amnh.org* to request an on-line application. Please remember to state your interest in the butterfly exhibit in the space provided on the application.

For all Members' programs, please call Central Reservations at (212) 769-5200.
All programs, with the exception of lectures, require advance registration.

Margaret Mead film & video festival

november 2-10

From a one-time celebration in 1977 to an annual fall ritual, this year marks the 25th anniversary of the Margaret Mead Film and Video Festival, one of the oldest and longest-running international documentary film and video festivals in the United States.

In addition to an outstanding line-up of documentaries, this year's Festival will feature a selection of work from filmmakers who have been celebrated in the past and who have recently produced exceptional new projects: these include Dennis O'Rourke, director of *Cannibal Tours* (1988), Bob Connolly and Robin Anderson, directors of the trilogy *First Contact*, Joe Leahy's *Neighbors* and *Black Harvest* (1982,1988, 1992), and Viktor Kossakovsky, director of *The Belovs* (1992).

Shinjuku Boys, directed by Kim Longinotto and Jano Williams and *Runaway*, Kim Longinotto and Ziba Mir-Hosseini, are pictured.

Brochures will be available in October and on the Web at www.amnh.org/mead.

Runaway

Shinjuku Boys

Conversations Across Generations: A Celebration of the Margaret Mead Centenary

Friday, November 2

Throughout her career, Margaret Mead (1901–1978) was interested in the relationships between generations. How do children learn their culture from elders, and how do elders, in a rapidly changing world, learn from children?

This celebration will bring together grandparents, parents, and children who have made major contributions to our society. Their conversations will be framed by scholars who have worked with Mead's ideas and followed in her footsteps as an anthropologist and public intellectual.

The opening session will be held on Friday morning with a presentation by Nancy Lutkehaus, Associate Professor of Anthropology, University of Southern California and author of the upcoming book *Margaret Mead and the Media: Anthropology and The Rise and Fall of an American Icon.*

For further information please call (212) 769-5200.

LeFraks make major gift... IMAX closes for renovations

Thanks to the wonderful generosity of the Samuel J. and Ethel LeFrak Foundation, last month AMNH began an extensive renovation of the IMAX theater.

The theater, originally designed by the renowned architect, Josiah Cleveland Cady, was completed in 1900. Under the direction of Polshek Partnership, architects of the Rose Center for Earth and Space, restoration of the theater will respect the theater's historic presence in New York City, preserving its classic Cady design while greatly enhancing its functionality with new lighting, acoustical, and audiovisual systems.

The theater will reopen in mid-May of 2002 as the Samuel J. and Ethel LeFrak Theater.

Computer model of the Samuel J. and Ethel LeFrak Theater.

AMERICAN MUSEUM ō NATURAL HISTORY
DISCOVERY TOURS

THE AMAZON

Discovering its Natural Wonders aboard La Amatista

Throughout history, the legends of the Amazon have enticed explorers and adventurers. Arriving in Peru, we spend a night in Lima before flying over the spectacular Andes Mountains to Iquitos, where we board our 14-cabin riverboat, *La Amatista*. We then follow the main channel of the Amazon River to the secluded waterways beyond the confluence of the Ucayali and Marañón Rivers—the Amazon's legendary source. Steadily retreating from modern civilization, we become immersed in primitive, untouched rainforest, visiting remote villages and viewing spectacular wildlife.

2002 DEPARTURES: FEBRUARY 23–MARCH 3; MARCH 2–10; MARCH 9–17

FROM $3,620

Includes airfare from Miami

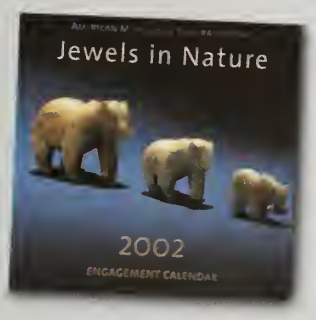
For more information, call

800-462-8687 *or* 212-769-5700

Give a Gift for All Seasons: AMNH Membership

Your friends and relatives can enjoy all the benefits of Membership, including complimentary Museum admission, a year's subscription to *Natural History Magazine* and *rotunda*, invitations to Members' previews, and discounts in Museum shops and restaurants. Choose 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 2002 *Jewels in Nature* engagement calendar (a $13.95 value, pictured) or *AMNH: The Official Guide* (see page 12 for details).



Please mail to the Membership Office, AMNH, Central Park West at 79th Street, New York, NY 10024, or call (212) 769-5606.

AMERICAN MUSEUM ō NATURAL HISTORY

Please send a one-year Membership at the category indicated to the person below.

[ ] Individual $45 [ ] Dual $60 [ ] Family $75 [ ] Contributor $125

Recipient's Name

Street Address

City State Zip

Please include *Jewels in Nature* [ ] –or– AMNH: The Official Guide [ ]

[ ] Individual $45 [ ] Dual $60 [ ] Family $75 [ ] Contributor $125

Recipient's Name

Street Address

City State Zip

Please include *Jewels in Nature* [ ] –or– *AMNH: The Official Guide* [ ]

Enclosed is my check for $____ Please charge my __Visa __ MC __ Amex

Card Number _____ Expiration date _____

Signature _____

Your name

Street Address

City State Zip

I understand that this special offer, which expires December 31, 2002, is not valid for renewing my own Membership.

Two views of totality.
(Top) a closeup view revealing the inner structure of the corona—the ghostly layer of ionized gas that envelops the sun.
(Bottom) an overexposed image, with a field of view three times wider than the top photo, showing the corona's full extent.
Photos: John Ellett and Amy Rabb-Liu

Madagascar

continued from page 5

Parson's Chameleon.
Photo: Charles Liu

means good father. After a climb up a steep, muddy path we found "babakoto" nestled in a vee between branches high in a tree. An Indri looks like a cross between a panda and a monkey. After watching this beautiful animal for a while, it began to vocalize, and others quickly followed suit, creating a haunting, howling wail reminiscent of whale song. The sound filled the rainforest and we could feel its intensity in our bones. It is said that the sound carries for up to two miles.

On June 20 we made our way to a temporary village north of the town of Morombe to prepare for viewing the eclipse. Our quarters consisted of a collection of floorless reed huts set on dunes above the beach. Behind the huts was a lovely valley full of spiny forest plants such as didieracea, euphorbia, raffia palms, and pachypodia. We walked along a starfish-studded shoreline to find the ideal spot to view the next day's eclipse. Charles Liu chose a spectacular setting—tropical plants around us, a desert forest behind us, an island on the horizon in the Mozambique Channel, and clear sand down to the water with an unobstructed view of where the sun would be.

After a chilly night, eclipse day arrived! An incredible set of cosmic conditions was just right to treat us to this incredible show. The laws of physics controlling the motions of the celestial orbs, the remarkable coincidence of the apparent sizes of the sun and moon, and the fortuity of our group of travelers being at the unique time and place in our universe came together to allow us to see this awesome, wondrous display of cosmic beauty.

First contact was at 3:11 p.m. local time. We saw a notch develop in the lower left limb of the sun, and watched the slow progress of the moon across the sun. As partiality grew, effects on the ground slowly became apparent. Leaves of bushes created pinhole images of the sun on the sand—we watched the circles turn into fat crescents and we watched the crescents sharpen as totality approached. The quality of light began to change. The light became that of an overcast day, although the sky was cloudless. The "fuzzy" edges of shadows sharpened as the light source (the sun's crescent) narrowed. Totality was nearly upon us, and all were watching the sun and the surroundings. The temperature dropped and the wind picked up. We spotted darkness along the horizon over the channel. Totality was within sight!

The line of darkness came towards us at about 1000 miles per hour. Suddenly we saw shadow bands racing across the sand. This phenomenon occurs because the sunlight, now a linelike source, is distorted by the motion of Earth's atmosphere. As we watched the sun disappear behind the moon, a spectacular diamond ring effect signaled second contact—the beginning of totality—at 4:25 p.m. For two-and-a-half breathtaking minutes we could look at the hidden sun with our naked eyes, cameras, and binoculars. The sky was lit with a glow, and before us the cosmos displayed a hole of blackness surrounded by ethereal flame.

We were also treated to stunning views of the corona and pink prominences, which we could see without any equipment. Jupiter appeared just below the eclipsed sun. A perfect climax to a memorable journey! Far too soon, totality ended. The diamond ring reappeared and we all again donned our eclipse glasses to view the sun. Time to watch the sun emerge from the moon's embrace, celebrate under the starry southern night sky, and prepare to head home.

Always a Classic.

Our collection of cultured freshwater pearls will give you a classic, crisp look for years to come. All jewelry contains sterling silver clasps and accents. This luxurious scarf by ECHO depicts an elegant arrangement of cultured pearls. Available in black (as shown) or navy, $58.

Platinum, white, or pink (not shown): Necklace $22. Bracelet $14. Earrings $18.

Platinum, white, or pink (not shown): Large Stretch bracelets, $12ea. Set of (3) small, $18. Earrings, $20. Necklaces, $12–$24.

American Museum of Natural History

A Gifted Idea.

Central Park West at 79th Street, New York City

To order: (212) 769-5150 • www.amnh.org

Available in The (main) Museum Shop and the Pearl Shop on 4.

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.

Rose Center
October 1, 8, 15, 22, 29 at 12:45 p.m.
October 1, 15, 22, 29 at 2:45 p.m.
November 5, 12, 19, 26, at 12:45 p.m.
November 5, 19, 26, at 2:45 p.m.

Rose Center and Hall of Planet Earth
October 2, 16, 30 at 2:45 p.m.
October 9, 23 at 12:45 p.m.
October 17 at 1:45 p.m.
November 6 at 10:45 a.m.
November 7, 21 at 1:45 p.m.
November 13, 27 at 2:45 p.m.

Fun Tour for Children and Parents
October 7, 21 at 12:45 p.m.
November 4, 18 at 12:45 p.m.

Maya and Aztec Arts and Architecture
October 14 at 11:45 a.m.
November 11 at 12:45 p.m.

The Original Lost World Tour
October 28 at 1:45 p.m.

Wild Dogs in Life and Legend
October 13 at 12:45 p.m.

Dragons
October 27 at 10:45 p.m.

Sky Hunters
October 27 at 12:45 p.m.

Margaret Mead Hall of Pacific Peoples
October 28 at 12:45 p.m.
November 25 at 12:45 p.m.

500 Million Years of Evolution
November 6 at 1:45 p.m.
November 20 at 12:45 p.m.

Primates
November 10 at 12:45 p.m.

Human Evolution
November 17 at 1:45 p.m.

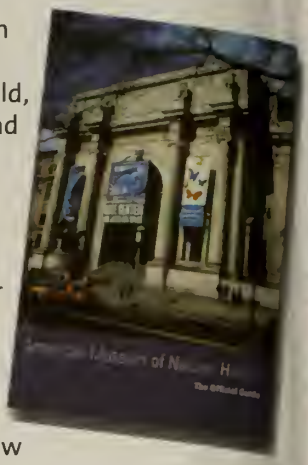
All That Glitters: Museum Gold
November 18 at 1:45 p.m.

Extinction is Forever
November 24 at 1:45 p.m.

Adventurous Animals in Sherlock Holmes
November 25 at 1:45 p.m.

American Museum of Natural History: The Official Guide

The first official guide to the American Museum of Natural History in many years, this beautiful, fully illustrated book takes you on a journey through the wonders of the natural world, the universe, and the cultures of humanity.



Full-color photography showcases the Museum's diverse halls, including detailed exploration of the new Rose Center for Earth and Space, the fossil halls, and the Hall of Biodiversity. With a history of the Museum, behind-the-scenes glimpses, and general visitor information, this book provides a unique visit to the Museum. *AMNH: The Official Guide, $7.95*

Exercise
your body

Educate
your mind

Explore
the world

Escape the cold
Powerwalk to the farthest corners of the earth...

Walk on the Wild Side
American Museum of Natural History

The American Museum of Natural History invites you to

Walk on the Wild Side

with Susan Rudin, program founder, and an intrepid band of early morning movers and shakers

A Wednesday morning fitness walking program for Museum Members at the Contributor Level ($125) and above

Kick-Off Event November 28—Contributor Members are invited to bring guests.
Kick-Off Event is open to all level Members.

15 Sessions between November 28, 2001 and March 20, 2002

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 Autumn Payne at (212) 313-7607 and register early–Space is Limited! Use the Museum's main entrance on Central Park West at 79th Street.

Come dressed to powerwalk at your own pace—Coat check available.

Halloween Celebration

Dress up in your favorite costume and come trick-or-treat at the Museum's Sixth Annual Halloween Celebration on Wednesday, October 31st from 3:00 p.m. –7:00 p.m. Meet your favorite characters, create scary masks, listen to live music performances, and take part in several other fun activities.

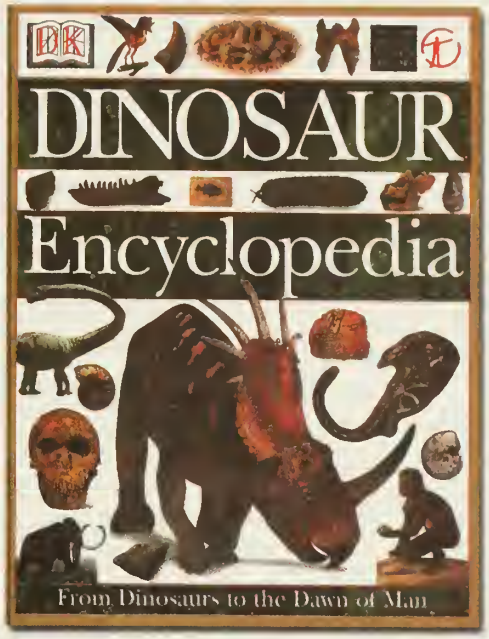
Admission to the event is $6.00 per person and includes all Halloween activities. A Monster Meal package, which includes admission, is available for $12.95 per person.

For further information and reservations, please call (212) 769-5200.

Photo: C. Chesek

starring the AMNH dinosaurs

Two new books look at the dinosaurs in the Museum's collection in entirely different ways, giving every child a way to both learn about and enjoy them.

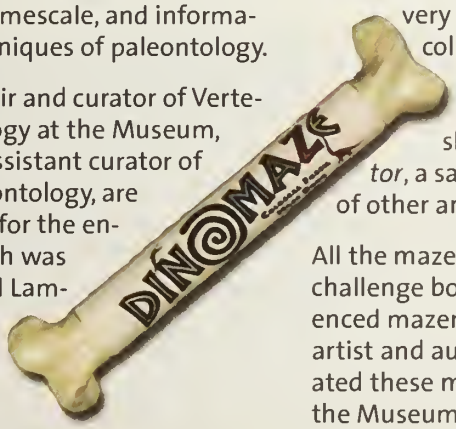


The Dorling Kindersley ***Dinosaur Encyclopedia***, published in association with the Museum, is a comprehensive survey that shows how different groups of animals evolved from common ancestors. Starting with invertebrates, the encyclopedia covers all prehistoric animals through mammals and their ancestors, brilliantly illustrated with drawings, photographs, and computer-generated reconstructions.

Page after page opens to a different animal, illustrated in detail and fully described in straightforward language.

The enyclopedia also features a full reference section with biographies of leading paleontologists, a glossary, a survey of the geological timescale, and information on the techniques of paleontology.

Mark Norell, chair and curator of Vertebrate Paleontology at the Museum, and Jin Meng, assistant curator of Vertebrate Paleontology, are the consultants for the encyclopedia, which was written by David Lambert and Elizabeth Wyse.



The Dinosaur Encyclopedia **, 8 1/2 x 11, $29.95, full color throughout, ages 8 and up**

Get to know your dinosaurs inside out! ***Dinomaze: Colossal Fossil Maze Book*** takes you inside 50 skeletons of dinosaurs and other fossils. Packed in its very own bone, *Dinomaze* is a collection of tear-off mazes that will take you through the anatomically correct skeletons of *T. rex*, *Velociraptor*, a saber-tooth tiger, and scores of other ancient animals.

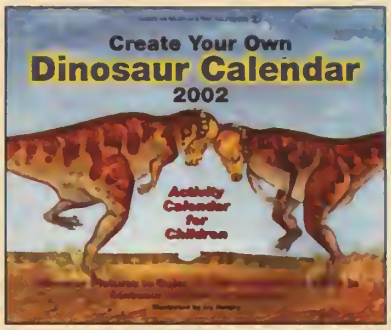
All the mazes are kid-tested and will challenge both the novice and experienced mazer. Elizabeth Carpenter, an artist and author of two other books, created these mazes from the creatures in the Museum.

Dinomaze: Colossal Fossil Maze Book**, 18 x 13 1/2, two colors, $14.95, ages 5 and up**

get ready for 2002

Five new calendars for 2002 are available in the Museum stores.

Wall Calendars:
Universe 2002 (12 x 12, $$11.95)
Masks of the Pacific Northwest (12 x 14, $12.95)



Project Calendars for kids:
Create Your Own Dinosaur
Create Your Own Night Sky
(both 12 x 10, $9.95)

Engagement calendar:
Jewels in Nature (7 x 7, $13.95; buy three and receive a fourth calendar free)
See special Membership offer on page 11.

Members' Special Discount Days in the Museum Shops

On Saturday, November 10 and Sunday, December 2, the Museum shops will offer a special 20% discount for Members instead of the normal 10% discount, giving Members a perfect opportunity to stock up on fascinating and fanciful holiday gifts, including jewelery and other related merchandise for the upcoming *PEARLS* exhibition.

museum notes

Birthday Parties at the Museum

Birthday parties at AMNH offer a winning combination of education and entertainment with five different exciting themes to transform your child's birthday into an unforgettable event. Choices include Safari Adventure, Dinosaur Discoveries, Global Mysteries, the Cosmic Blast-Off, and the Underwater Treasures. Parties are geared to children ages 5 and up, are planned seven days a week, and are available to Contributor and higher level Members only.

For more information, please contact Linda Kaye's Partymakers at (212) 288-7112.

Friday Jazz

Starry Nights: Fridays Under the Sphere, a weekly series of live jazz at the Rose Center for Earth and Space continues in October, November, and December. The bands will play one-hour sets at 5:45 p.m. and 7:15 p.m.

Please call (212) 769-5100 for more information.

Vinicius Cantuaria Quintet–October 5, 12, 19, 26

Randy Weston's African Rhythm's Quintet–November 2, 9, 16, 23

Steve Wilson Quartet–November 30

Cider and Doughnuts

This fall, we are pleased to offer Members a complimentary Krispy Kreme Doughnut of their choice (a $1.00 value), with the purchase of the season's best drink, Fresh Apple Cider, 12 ounces for $2.95. Doughnut choices include Glazed, Chocolate Glazed or Raspberry filled. Also, look out for other seasonal flavors throughout the Fall.

As always, Members receive a 15% discount at the Museum Food Court, Café on 4, Café 77, and the Big Dipper Café on the Lower Level. To obtain a discount simply present you membership card at the start of your transaction.

Oktoberfest

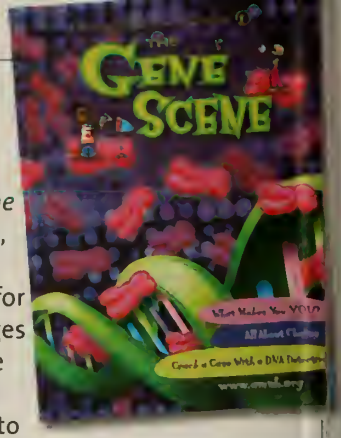
Friday, October 19, 6:30– 7:30 p.m.
AMNH Annex Café, Lower Level, Subway Entrance Lobby
Adults $35

Members are invited to a German Wine and Food Workshop. In the spirit of Oktoberfest, the annual harvest festival, this workshop will feature a tasting of white Rieslings, the noble grape of German vineyards, paired with a buffet of German foods, including the famous sausages and wursts of Germany. The wine tasting will be led by Ann Marie Suveges, Wine Manager for Lauber Imports. A discussion of German sausages by Ralph Schaller, of Schaller and Weber, will follow.

The "Oktoberfest" buffet will also include: Sausages and Wursts, Stuffed Trout, Chicken in Riesling Wine Sauce, Bierocks—pastry filled with cabbage and meat, Kartoffelpuffer—potato pancakes and Spaetzle, Sauerkraut and Red Cabbage dishes, Apple Strudel.

Please call Central Reservations at (212) 769-5200 to reserve your place.

The Gene Scene



This fall, *The Gene Scene*, an activity magazine for children ages 7-12, will be distributed nationally to approximately 80,000 teachers and 2 million students. Developed in conjunction with *The Genomic Revolution* and rich with illustrations and activities, the magazine introduces young audiences to the world of genetics, explaining how scientists help us to understand our world and ourselves while posing critical questions surrounding recent discoveries and techniques from The Human Genome Project to cloning.

The Gene Scene is available in English and Spanish in AMNH's *The Genomic Revolution* exhibition hall. For an online version of the magazine, visit www.ology.amnh.org/genetics.

National distribution of The Gene Scene is made possible by a generous gift from the Pfizer Foundation. AMNH also gratefully acknowledges the Lita Annenberg Hazen Foundation for its support in developing The Gene Scene.

Lewis Bernard, Chairman, and **Ellen V. Futter**, President, AMNH, with honoree **Robert Pittman**, CEO, AOL Time Warner, and Dinner Chairman **Robert Joffe**, Presiding Partner of Cravath, Swain, and Moore at the AMNH Corporate Dinner on May 10. The event raised 1.9 million dollars.

GROW A PEARL
Create a Gift of Lasting Value

charitable gift annuity can be an excellent way to uild for the American Museum of Natural History's ıture and ensure a regular, fixed annuity for life to ɔu or someone important to you.

gift annuity is an agreement between you and the luseum. In response to your gift of $5,000 or more cash or securities, the Museum commits to ovide lifetime payments to one or two people of ɔur choice, aged 55 or older. The amount of your ınuity is based on the size of your contribution ıd your age when you make the gift.

ɔr more information, please call the Planned iving Office at (212) 769-5119 or toll-free (800) 53-5734, or via e-mail at *jpalmer@amnh.org.*

MERICAN MUSEUM ŏ NATURAL HISTORY

Pearls courtesy of Rosa Strygler. Photo: D. Finnin.

Enjoy a String of Benefits

With a gift annuity, you can achieve several important tax advantages:

- You benefit from a charitable income tax deduction for the year of the gift.
- A portion of your annuity payments is received tax-free for your life expectancy.
- If you fund your gift annuity with appreciated securities, there can be substantial capital gains tax savings.

Eighth Annual Family Party

Wednesday, October 24, 5:30–8:00 p.m.

\ fun-filled family event featuring multicultural music and dance, ive animals and exotic reptiles, behind-the-scenes exploration, ıands-on science and craft projects, and, of course, dinosaurs!

-and–

Middle School Madness: Where 4th through 8th graders are invit- d to take a special behind-the-scenes tour of the Museum.

'or more information, please call (212) 496-3458.

'o order tickets, lease fill out the oupon at the right.

Please mail this coupon with payment to:
The Family Party, Development Office,
American Museum of Natural History,
New York, NY 10024-5192

_____Adult Ticket(s) at $125

_____Childrens Ticket(s) at $65

_____Middle School Madness Ticket(s) at $65

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: [ ] Visa [ ] MC [ ] Amex

Number_____Exp._____

Signature_____

Please make checks payable to the American Museum of Natural History. $65 of each ticket is non tax-deductible.

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.	10:00 a.m. - 7:45 p.m.

Café on 4

Sun. - Thurs.	11:00 a.m. - 4:45 p.m.
Fri. & Sat.	10:00 a.m. - 7:45 p.m.

Café 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

Parking is available at our facility conveniently located within the Museum; enter at 81st Street between Central Park West and Columbus Avenue. The hours of operation are 8:00 a.m.-11:00 p.m. Members will receive a discounted rate of $10 if entering after 4:00 p.m. For more information please call (212) 313-7278. For public transportation and parking info., call (212) 313-PARK (7275). The Museum is well served by public transportation.

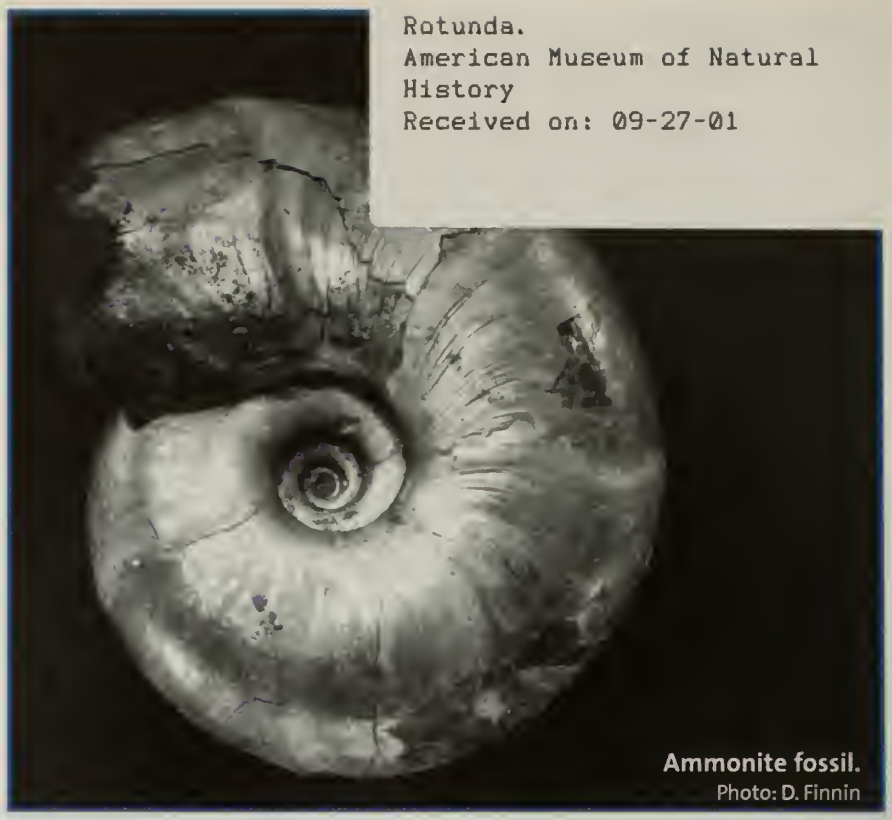
Entrances

During Museum hours, visitors can enter the building through the 77th Street entrance, the 79th Street subway entrance, the second-floor Roosevelt Memorial Hall entrances (79th Street & Central Park West), or through the West 81st Street Rose Center entrance. Visitors may also enter through the Weston Pavilion on Columbus Avenue at 79th Street. Visitors attending programs after hours can enter the building through the security entrance at 79th Street and Central Park West, down the driveway. Tickets can be picked up or purchased at the ticket desk just inside the entry.

Phone Numbers

Museum Information	(212) 769-5100
Membership Office	(212) 769-5606
Planetarium Information	(212) 769-5900
Member Birthday Parties	(212) 769-5013
Education Department.	(212) 769-5310
Planned Giving Office	(212) 769-5119
Discovery Tours	(212) 769-5700
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) 7695034
Website	http://www.amnh.org

AMERICAN MUSEUM OF NATURAL HISTORY



Rotunda.
American Museum of Natural History
Received on: 09-27-01

Ammonite fossil.
Photo: D. Finnin

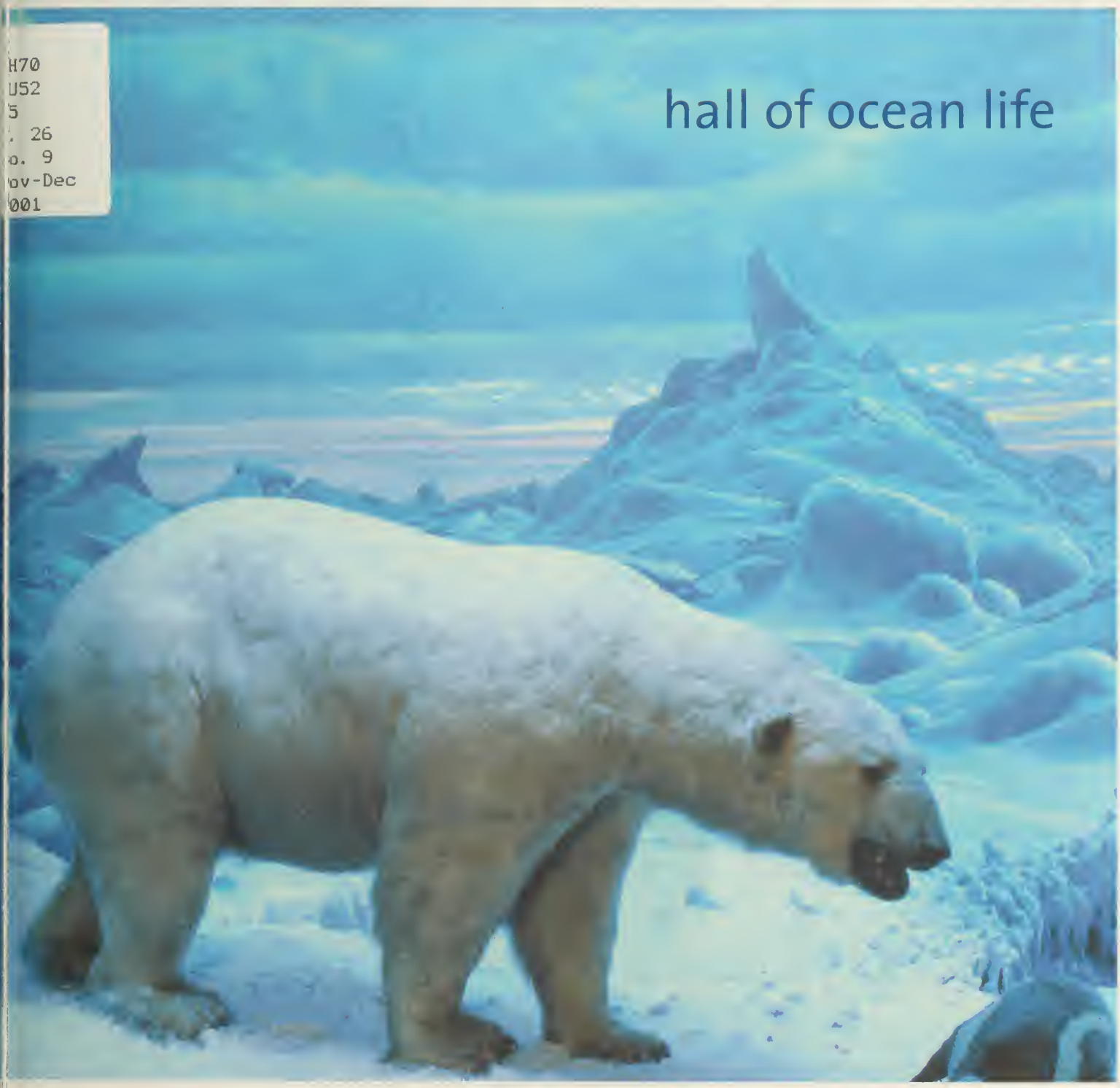
Membership Department
Central Park West @ 79th Street
New York, New York 10024-5192
www.amnh.org

rotunda

ol. 26 No. 9 December 2001

Members' Newsletter

H70
U52
5
. 26
o. 9
ov-Dec
001



American Museum of Natural History

diorama arts and the Milstein Hall of Ocean Life

by Steve Quinn

The distant glow of warm afternoon sunlight on the horizon signals the passing of the storm on an otherwise gray and cold winter landscape. The departing squall has dusted the rocky beach with snow. Beyond the surf, sea ducks—scoters and eiders—ride the swells, disappearing as they dive to feed in the frigid waters below. Herring gulls ride the offshore winds. Beyond the receding boulder-strewn beach, standing at land's end, a lighthouse catches the raking amber light and places us at one of New York's best known, and popular, summer shore resorts—Montauk Point, on the tip of eastern Long Island.

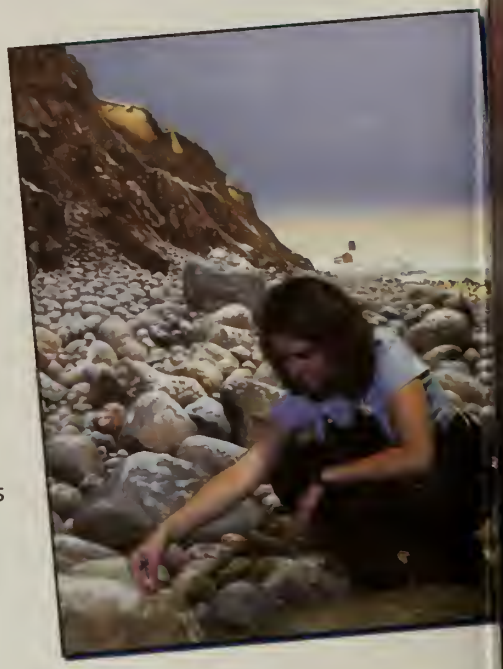
Popular with certain winter visitors from the North, for among the rocks and cobbles of the beach before us rest two bathers of a different kind—Harbor Seals, who find Montauk's rocky beaches and food-rich waters a safe haven during the cold, winter months.

Our concentration on the natural scene before us is suddenly broken by the arrival of a large school group, descending the stairs behind us, for we are not actually in the icy winter winds of Montauk Point, but standing before a diorama in the Paul and Irma Milstein Hall of Ocean Life at the American Museum of Natural History. This exhibit is part of an ongoing effort to renovate and redesign the Milstein Hall of Ocean Life and will, in January 2002, require the complete closure of the Hall with a reopening scheduled for the Spring of 2003.

The newly created Harbor Seal Diorama is intended to make Museum visitors aware of the richness and variety of local New York marine environments.

In February of this year, with the cooperation of the New York State Department of Parks, the Museum sent Sean Murtha, an artist on staff in the Department of Exhibition, to Montauk Point to complete a sketch of the site. Sean collected the necessary references, in paint, to complete the final curved background for the diorama at the Museum. Once back at the Museum with these references, Sean began to sketch the final background in charcoal, making adjustments to his drawing to allow for the distortion that occurs when rendering on a curved surface. When the charcoal drawing was completed and approved by the curators, the final painting was then executed in oil paint.

As do all the other dioramas at the Museum, the Harbor Seal exhibit depicts an exact place. Working with Sean Murtha, artist Cleo Villet collected all of the required three-dimensional material for the exhibit's foreground. Photographs documented the site and provided useful reference in the creation of the foreground. Once back at the Museum, Cleo was joined by artist Perry Gargano for the foreground's final fabrication and installation. A tide pool at the water's edge was recreated in polyure-

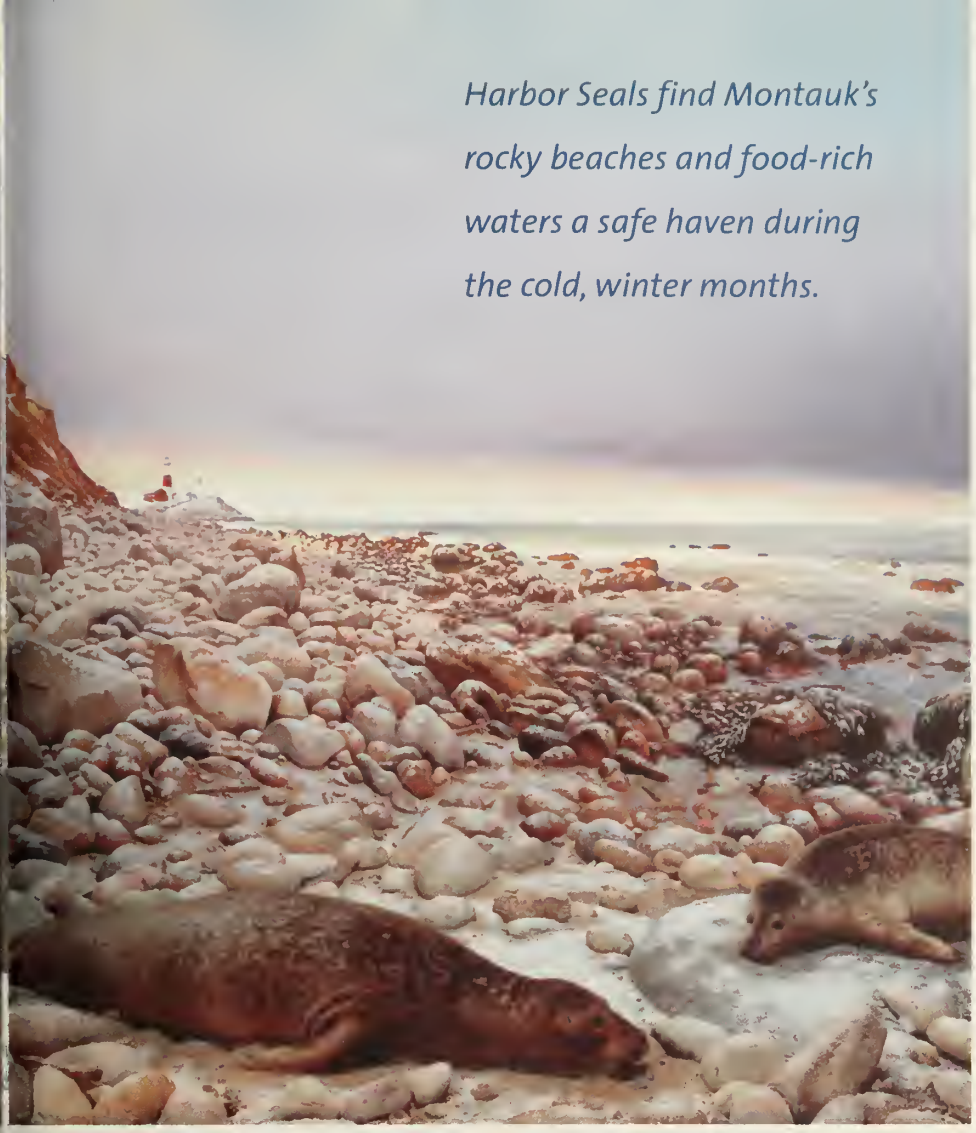


Artists Cleo Villet (above) and Sean Murtha (below) work on the Harbor Seals and Polar Bear Dioramas.

Photos: D. Finnin and C. Chesek.

Cover photo: D. Finnin.

Harbor Seals find Montauk's rocky beaches and food-rich waters a safe haven during the cold, winter months.



ıane resins. Large rocks, too heavy to ɜ brought back to the Museum, were ıulpted in plaster, and a dusting of ıow was simulated with a chopped ɪylic.

The Harbor Seal Diorama is intended ɔ recreate a personal encounter with ıese creatures in their natural, in this ıse, local New York, winter environ- ɪent. The goal of the exhibit is shared ʏ all of the Museum's dioramas. That to recreate, within the walls of the ıuseum, the wonder of encountering ature in all its beauty and in doing so, urturing an appreciation for and an nderstanding of these often endan- ɜred ecosystems and their associated ɔra and fauna.

The Exhibition Department has com- eted renovation work on the Polar Bear iorama (on the cover) which features ıe animal hunting its prey on the pack e of the Bering Sea and can be viewed ʏ visitors until January 2, 2002, when ıe Hall is slated to close. The Harbor ɜal diorama can be viewed in the Spring of 2003 when the entire renovation is scheduled for completion. Currently, the artists in the Exhibition Department are at work on three other dioramas in the Hall, featuring the Florida Manatee, the Northern Elephant Seal, and the Steller's Sea Lion, and plans are under way to restore the Hall's Andros Island Coral Reef diorama.

The dioramas are not the only aspect of the Milstein Hall of Ocean Life that is scheduled for redesign thanks to a wonderfully generous gift from Trustee Irma Milstein and her husband Paul. The entire Hall will be refocused to embrace a complete story of the evolutionary history and diversity of marine environments world-wide. Exhibits will illustrate unique marine ecosystems and the adaptations of plants and animals to these habitats. The Hall will seek to highlight concerns about the future of aquatic systems and the threatened state of the important human resources, such as fisheries, that they provide.

continued on next page

rotunda

ISSN 0194-6110
Vol. 26, No. 9 December 2001

Mark Shoffner, *Editor*
Sandi Frank, *Copy Editor*
Rosemary Caulk, *Director of Membership*
Lynn DeBow, *Vice President for Development and Membership*
Ellen V. Futter, *President*
Lewis W. Bernard, *Chairman*

rotunda is published bimonthly, except for a combined issue in July/August/September and a single issue in December, 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*. ©2001 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) (USPS 472-650). Date of filing: October 22, 2001. Frequency of issue: Bimonthly except for a combined issue in July/August/September and a single issue in December. Number of issues published annually: 6. 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: Mark Shoffner. Owner: American Museum of Natural History. Known bondholders, mortgage 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 preceding 12 months, and (B) signifies average number of copies of single issue published nearest to filing date. Total number of copies (A) 62,000, (B) 60,000. Paid circulation through Dealers and Carriers, Street Vendors, Counter Sales, and Other Non-USPS Paid Distribution (A) and (B): None. Mail subscription: (A) 59,573 (B) 53,900. Free distribution by mail: None. Free distribution outside of mail: (A) 2250 (B) 5000. Total distribution (A) 61,900 (B) 59,900. Copies not distributed (A) 200 (B)1000. 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) Mark Shoffner.
Printed by Data Communiqué International, Carlstadt, New Jersey.

"We will reanimate a cherished Museum icon, awakening the sleeping giant, the Great Blue Whale."—*Ellen V. Futter, President, AMNH*

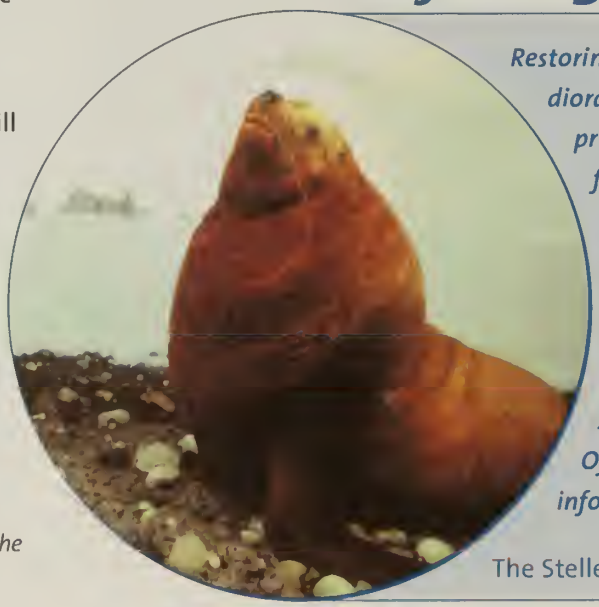
continued from previous page

Through the use of models, specimens, state-of-the-art multi-media displays and theatrical design techniques, the new Hall will provide the public with an immersive ocean experience. The 94-ft. blue whale suspended from the Hall's cavernous ceiling will be cleaned, restored and bathed with atmospheric lighting that will simulate the shimmering quality of light as it passes through water. As Museum President Ellen V. Futter has described it, "We will reanimate a cherished Museum icon, awakening the sleeping giant, the Great Blue Whale.

"When completed, the new Milstein Hall of Ocean Life will reflect current research into the ocean's vital role in the life of our planet and will contribute to a better understanding of the importance of protecting the world's marine ecosystems."

Steve Quinn is the Senior Project Manager in the Exhibition Department

Redefining Dioramas



Restoring and enhancing these historic dioramas is an important Museum priority. There are many opportunities for individuals, corporations and foundations to help support this delicate and precise restoration, forever linking your name with the Hall and the American Museum of Natural History. Please contact Sarah Young in the Development Office at (212) 769-5207 for more information about how you can help.

The Steller's Sea Lion diorama.

OLogy

How can you travel to Mars or the Gobi desert without leaving your room?
How can you explore DNA that even the human eye can't see?
How can you visit the Museum after the doors have closed?

With Ology, the Museum's web site for kids!

Ology engages kids in the adventure of science, taking them to places they may never have been: into the field and research labs, and behind-the-scenes to meet scientists and see their collections. Each section of Ology is developed with scientists, educators, and kids ages 7-11, to ensure that the science is rich and the tone and style are engaging.

The topics covered in Ology follow the exhibition and research priorities of the Museum. When the Museum opened *The Genomic Revolution* in May, Ology launched a companion site called the Gene Scene. After a visit to the Museum, kids can visit the Gene Scene to find out even more about genetics and our world. Kids who may not have the chance to visit the Museum can also explore the field of genetics on the Ology web-site.

Genetics isn't the only topic covered at Ology. There's also Astronomy: Our Place in Space, with features on gravity, "how we know what we know about Mars," and the Big Bang Theory. Another popular Ology section is Paleontology: The Big Dig, which chronicles expeditions to the Gobi desert and introduces unfamiliar dinosaurs like *Drinker nisti.*

In addition to feature stories, each Ology section has a quiz for kids to apply what they know and a poll to share their opinions. A feature called "Meet the Ologists" has pictures and interviews with Museum scientists. A large section called "Stuff to Do" is full of activities you can do away from your computer—such as making DNA in a blender or drawing and coloring dinosaurs.

One of the most engaging parts of the web-site is collecting Ology cards. These are colorful electronic cards (see above) that are sprinkled throughout the site and packed with stories, quizzes, stats and photos that let kids dig deeper into topics that interest them.

An Ology card.

Have you ever wanted to create your own homepage? As part of the Ology web-site, kids can create their own card collection areas according to their interests in Genetics, Paleontology and Astronomy. They can also view their card collections in different ways, sort them into groups and determine the look of their homepage. Starting this fall, kids are creating projects with their card collections, such as stories and comparisons, and submitting them to the Museum. The most creative and interesting projects will be posted online for all of our community of kids to see!

This year, Ology received the Distinguished Achievement Award for Educational Technology from the Association of Educational Publishers. It was also cited as one of the American Library Association's 2001 Notable Children's Web-sites.

The Museum is honored by the recognition, and we thank our Ologists of all ages for their help in creating the web-site! In the future, Ology will continue to provide engaging content related to the Museum's exhibitions and research areas. Ology is used in homes and schools across the country—this year, we are starting a program to use Ology in after-school settings, so that we can connect even more kids to what the Museum has to offer.

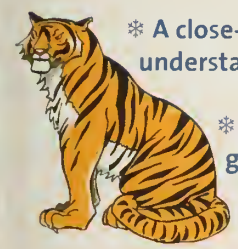
Ology is the kid's online connection to AMNH. It's a safe web-site site for young people to develop their interest in science and our world.

Now, kids don't have to leave the Museum when they walk out the doors. They can visit the Museum any time they want by going to www.ology.amnh.org.

The initial development of Ology was made possible by a generous grant from The Louis Calder Foundation.

What can you find in Ology's *Gene Scene*?

- A game that explains how the majority of human traits develop through a combination of "nature and nurture"
- A kid's news show on the Human Genome Project and what it might mean for our future
- A close-up look at Dolly, the cloned sheep, to understand how and why cloning is being done
- Profiles of Museum scientists who use genetics in their fight to protect endangered species and their habitats



members' programs

MEMBERS' LECTURES

One Universe

Tuesday, January 15
7:00 p.m.

Neil de Grasse Tyson, Director of the Hayden Planetarium, and Charles Liu, Astrophysicist in the Museum's Department of Astrophysics, tackle a big subject: the Universe. Drawing on their book, *One Universe: At Home in the Cosmos*, which recently received the American Institute of Physics Science Writing Award, they will demonstrate how the physical principles that operate in our kitchens and backyards are actually down-to-Earth versions of cosmic properties. Tyson and Liu will discuss how an understanding of the concepts of motion, matter, and energy can be used to interpret the results of scientific research.

Kaufmann Theater
Code: MM1-1
Cost: $10 Members, $12 Non-Members

Aquagenesis: The Origins and Evolution of Life in the Sea

Thursday, January 24
7:00 p.m.

For hundreds of millions of years, the only living creatures on Earth were, in fact, living under water. Then, some 350 million years ago, for reasons unknown, a primitive vertebrate crawled out of the water and stayed out. Richard Ellis, research associate in the Museum's Department of Paleontology and ocean life specialist, takes on the deep mysteries of evolution in the sea, tracing the path from the first microbes to the jawless, finless creatures that became the myriad vertebrate species alive today, including sharks, whales, seals, penguins, dolphins and human beings.

How and why did some creatures come to glow in the darkness of the deepest ocean? How does life now exist in the super-hot hydrothermal vents two mile below the surface? How did a land mammal turn into a bottlenose dolphin or a flying bird into a deep-diving penguin? Which sea creatures are on the fast track to extinction? Richard Ellis addresses these questions on a fascinating tour of the paleontological history of oceans past, present, and future. You will be astonished at the wonder, richness, and complexity of this story.

Richard Ellis is the author of eleven books, including *The Book of Sharks*, *The Book of Whales*, *Monsters of the Sea*, *Deep Atlantic*, *Imagining Atlantis* and *The Search for the Giant Squid*. *Aquagenesis* is his latest book.

Kaufmann Theater
Code: MM1-3
Cost: $10 Members, $12 Non-Members

Porcupine fish. Photo: AMNH Special Collections

SPECIAL MEMBERS' TOURS

Behind-the-Scenes in the Department of Ichthyology

Tuesday, January 22
6:30, 7:00 and 7:30 p.m.

Open to Members for the first time since an extensive renovation completed in 1999, the Museum's Department of Ichthyology reveals a marvelously diverse collection of fishes from the ancient coelacanth to tropical beauties from Australia's Great Barrier Reef. The Department is ranked among the foremost international centers of ichthyological research, housing approximately 2 million fish specimens, many of them gathered on expeditions around the world.

Go behind-the-scenes and find out about ichthyology at the Museum. Senior Scientific Assistant Radford Arrindell will reveal some of the

Departments' most exotic and excep-
ional specimens as we tour the prepa-
ation and collections area. Learn about
he Department's effort to conserve the
hichlids, a diverse group of African fish-
s, with Axelrod curator Melanie
tiassny. Scott Schaefer, Associate
urator and Curator-in-Charge, will sur-
rise us with information about how
ew techniques for imaging and scien-
ific visualization are applied to research
n South American catfishes. Members
re sure to develop new insights into life
n aquatic worlds.

ode: MM1-2
ost: $25–Members Only

ichard Ellis aboard the Sea Cloud.

xploring the Hall of ertebrate Origins with ichard Ellis

uesday, January 29
oo p.m.

ichard Ellis, Research Associate in the
epartment of Paleontology and author
f *Aquagenesis: The Origin and Evolution*
f Life in the Sea, leads this after-hours
our of the Museum's Hall of Vertebrate
rigins. See the remains of animals
hat have not been seen alive for 400
illion years, some as strange as science
ction monsters. You'll hear the story of
e evolution of vertebrate life complete
ith a cast of characters including the
rst jawless fish, early turtles and
ocodiles three times larger than their
odern counterparts, sharks with spiral
eth, and with teeth as big as your hand.

ode: MM1-4
ost: $12–Members Only

FREE HALL TOURS

Re-Scheduled

Is Anybody Out There? The Search for Life in Other Worlds

Saturday, January 12
6:15 p.m.

What kinds of environments may sustain life? How are scientists looking for life on other planets? Museum Tour Guides Donna Walcavage and Larry Basset examine the richness of life on Earth and the search for life in other worlds.

Code: MM1-12
Cost: Free – Members Only
Advance registration required.

100 Years Ago at the American Museum of Natural History

Friday, January 18 and
Saturday, January 19
6:15 p.m.

Explore the many layers of history with Museum Tour Guide Suzi Zetkus as she takes you on a journey to the past. Learn about the Museum as it existed in 1901-1902—what has changed and what has remained the same?

Code: MM1-18
Cost: Free – Members Only
Advance registration required.

Fabrics and Fashion

Friday, January 25 and
Saturday, February 2
6:15 p.m.

Movies, politics and weather are just a few influences that have an effect on fashion. What role has fabric played in compelling fashion trends to change? Museum Docents Judith Freeman and Donna Walcavage illustrate the important relationship between fabrics and forever-changing fashion.

Code: MM1-25
Cost: Free – Members Only
Advance registration required.

Now on Exhibit

The Butterfly Conservatory: Tropical Butterflies Alive in Winter

October 7, 2001–May 28, 2002
Hall of Oceanic Birds, second floor

This exhibition, a holiday favorite, features 300 to 500 live, free-flying tropical butterflies.

previously listed

Members' Family Holiday Party

Saturday, December 1
1:00–4:00 p.m.

Join us in the Museum's Hall of Ocean Life for activities, workshops, and live entertainment. Children will sing along with PBS award-winning folk trio Dave Grover and the Big Bear Band as they perform songs for Chanukah and Christmas.

The event is free and open to Family and Higher Level Members only. Members must register though Central Reservations at (212) 769-5200 in order to attend.

Photo: Sing-along with the Dave Grover Band

Location: Hall of Ocean Life
Cost: Free–Family and Higher Level Members only
Code: MM12-5

For all Members' programs, please call Central Reservations at (212) 769-5200.

PEARLS: A NATURAL HISTORY

Written by the curators of the exhibit—Neil H. Landman and Paula M. Mikkelsen of AMNH and Rudiger Bieler and Bennet Bronson of the Field Museum—*Pearls: A Natural History* brings together a remarkable range of information, combining science, history and art. Comprehensive in its coverage of the natural history of pearls, including pearl harvesting, perliculture, the ecology of pearl-producing mollusks, and the nature of iridescence, this beautifully illustrated book also displays pearls in art, literature, history, and jewelry, both as a glorious gem and as an industry. Illustrations range from paintings featuring pearls to fabulous jewels and decorative objects from all cultures. Extensive tables illustrate the great variety of mollusks and the pearls they produce.

Pearls: A Natural History is available in Museum bookstores in an exclusive paperback edition at $29.95 and in hardcover at $49.50. Member discounts apply.

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, except where noted.

Pearls (meets at the entrance to the exhibit on the fourth floor)
December 3, 10, 17, 24, 31 at 12:45 p.m.

Extinction is Forever
December 8 at 12:45 p.m.

Margaret Mead
December 16 at 2:45 p.m.

Ezra Kulko gives back to the Museum

Ezra Kulko can be found Monday and Saturday afternoons on the Museum's fourth floor, serving as a Fossil Explainer. Some 60 years ago, he was among the youngsters thronging the halls where he now volunteers. Regarding his love for the Museum, he says, "It all began when I was 8 years old. My mother would give me 2 nickels for round-trip subway fare to attend the nature films that were shown on Fridays after school."

Ezra went on to become a successful Manhattan dentist. In the midst of a busy career, he ordered an Associate Membership for his office and placed *Natural History* in his patients' waiting room. As he, too, read and enjoyed the magazine, he began to attend a wide variety of lectures and programs and came to appreciate all the more the scope and importance of the Museum's mission. Then, when he retired in 1997, he decided to become a volunteer. Ezra is currently training as an Earth and Space Explainer, adding to his repertoire of service to the Museum.

Along with his gifts of time, energy, and talent, Ezra is helping the Museum in another essential way, through his estate plan. AMNH is named as a beneficiary of his IRA and is also included in his will for a residuary bequest. "Because the Museum enhances my life in so many ways," Ezra explains, "I want to give back and enhance its future. Doing so only deepens my love for this mind-expanding place."

For more information on creative ways to support the Museum's future through bequests and other special gifts, please call the Planned Giving Office at (212) 769-5119 or toll-free at (800) 453-5734.

Ezra Kulko in the Hall of Ornithischian Dinosaurs.

get ready for 2002: five new calendars available in Museum stores

Also available but not pictured: *Universe 2002* and *Jewels in Nature*.

Bright ideas for the holidays.

WTER BABY SET (ALSO AVAILABLE IN YELLOW) BY DANFORTH. PEWTER WL WITH SPOON, $60. FRAME, $30. CUP (NOT SHOWN), $36.

EXCLUSIVELY OURS, BASEBALL CAP WITH ADJUSTABLE BACK, REFLECTIVE TAPE ON BRIM, $17.50. KIDS' 3/4 LENGTH T-SHIRT (SIZES S-L), $20. WATER REPELLENT DRAWSTRING BAG, $15.

OON PILLOW, $20. STUFFED UNICORN, $25. ONE-PIECE BABY SUIT 2-24 MOS.), $12.95. PLUSH STAR FRAME, $10.

EXCLUSIVELY OURS, PLUSH ANIMALS, LEOPARD, $20. SNOWY OWL, $8.50. MAMMAL VIDEO, $12.95.

3-D WOOD VELOCIRAPTOR PUZZLE. SMALL (21"Hx36"L), $35. MEDIUM (29"Hx50"L), $55. LARGE (42"Hx69"L), $105.

EXCLUSIVELY OURS, MELAMINE DINO DINNERWARE. BOWL, $2. 8" PLATE, $2.50. TWO-HANDLE CUP, $2. PLACEMAT, $3.50. DISHWASHER SAFE.

AMERICAN MUSEUM OF NATURAL HISTORY

A GIFTED IDEA.

CENTRAL PARK WEST AT 79TH STREET, NEW YORK CITY

TO ORDER: (212) 769-5150 • WWW.AMNH.ORG

museum notes

starry nights: friday jazz under the sphere

Starry Nights features stellar live performances by some of the world's leading musicians every Friday evening from 5:45 p.m.–8:15 p.m.

In December, baritone saxophonist Cecil Payne will be gracing us with his smooth, classic sound. A member of Dizzy Gillespie's bebop band (1946-49), Mr. Payne went on to collaborate with Woody Herman and Count Basie before starting a successful solo career. *Chic Boom: Live at the Jazz Showcase*, recorded in 2000, is his most recent album.

Cecil Payne—December 7, 14, 21, 28
Please call (212) 769-5100 for more information.

Lead sponsorship for "Starry Nights" is provided by Fleet with associate sponsorship from Hennessy and CenterCare Health Plan.

Pearls and *Meeting God* openings

President Ellen V. Futter (center) with Elihu and Susan Rose at Pearls.

Lou Gerstner (center), Chairman and CEO of IBM, with (left to right) his daughter Elizabeth, wife Robin, President Ellen V. Futter and Chairman Lewis W. Bernard.

This fall the Museum celebrated the opening of two new temporary exhibitions, *Pearls* and *Meeting God: Elements of Hindu Devotion*, with special receptions for Trustees, donors, and special friends.

More than 1,200 guests joined us on October 10th for a preview of the beautiful new exhibition *Pearls* and a cocktail reception featuring Pearl vodka. On September 6th over 400 guests attended a reception for *Meeting God* featuring traditional Hindu dancers, musicians, food and henna painting.

Gitanjali Galau, Pamela Singh, Michelle Narine, Neeti Kaur, and Sweta Goswami present a Hindu dance at Meeting God.

Birthday Parties at the Museum

Birthday parties at AMNH offer a winning combination of education and entertainment with five different exciting themes to transform your child's birthday into an unforgettable event. Choices include Safari Adventure, Dinosaur Discoveries, Global Mysteries, and the Cosmic Blast-Off.

Parties are geared to children ages 5 and up, are planned seven days a week, and are available to Contributor and higher level Members only.

For more information, please contact Linda Kaye's Partymakers at (212) 288-7112.

Hot Chocolate Special

This December, Restaurant Associates is pleased to offer AMNH members a complimentary Old Fashioned Hot Chocolate (a $1.95 value), with the purchase of any $3.95 dessert. Dessert choices include Pineapple Almond Tart with Coconut Cream, Crème Brulee, Chocolate Yogurt Bundt Cake, Apple Tart, Chocolate Mousse and more. Also, look for other seasonal flavors throughout the holidays.

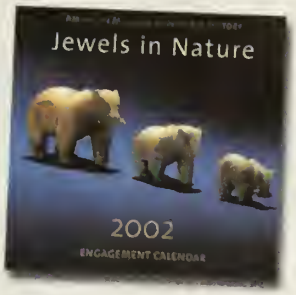
As always, Museum members receive a 15% discount at the Museum Food Court, Café on 4 and Café 77. To obtain a discount, simply present your membership card at the start of your transaction.

Give a Gift for All Seasons: AMNH Membership

Your friends and relatives can enjoy all the benefits of membership, including complimentary Museum admission, a year's subscription to *Natural History Magazine* and *rotunda*, invitations to Members' previews, and discounts in Museum shops and restaurants.

Choose an **Individual** $45, **Dual** $60, **Family** $75, or **Contributor** $125 membership, and we'll do the rest.

As a special holiday bonus, we'll send AMNH's beautiful 2002 *Jewels in Nature* engagement calendar (a $13.95 value, pictured) or *AMNH: The Official Guide*.



Please mail to the Membership Office, AMNH, Central Park West at 79th Street, New York, NY 10024, or call (212) 769-5606.

AMERICAN MUSEUM ♁ NATURAL HISTORY

Please send a one-year Membership at the category indicated to the person below.

[ ] Individual $45 [ ] Dual $60 [ ] Family $75 [ ] Contributor $125

Recipient's Name

Street Address

City State Zip

Please include *Jewels in Nature* [ ] –or– *AMNH: The Official Guide* [ ]

[ ] Individual $45 [ ] Dual $60 [ ] Family $75 [ ] Contributor $125

Recipient's Name

Street Address

City State Zip

Please include *Jewels in Nature* [ ] –or– *AMNH: The Official Guide* [ ]

Enclosed is my check for $___ Please charge my __Visa MC Amex

Card Number _____ Exp. date _____

Signature _____

Your name

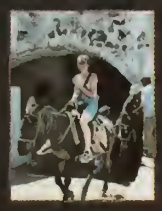
Street Address

City State Zip

I understand that this special offer, which expires January 31, 2002, is not valid for renewing my own Membership.

AMERICAN MUSEUM ♁ NATURAL HISTORY
DISCOVERY TOURS

EXPEDITIONS THROUGHOUT THE WORLD WITH DISTINGUISHED SCIENTISTS AND EDUCATORS



2002 PROGRAM GUIDE

TO REQUEST OUR 2002 PROGRAM GUIDE CALL: (800) 462-8687 OR (212) 769-5700
VISIT OUR WEB-SITE AT WWW.DISCOVERYTOURS.ORG

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.	10:00 a.m. - 7:45 p.m.

Café on 4

Sun. - Thurs.	11:00 a.m. - 4:45 p.m.
Fri. & Sat.	10:00 a.m. - 7:45 p.m.

Café 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

Parking is available at our facility conveniently located within the Museum; enter at 81st Street between Central Park West and Columbus Avenue. The hours of operation are 8:00 a.m.-11:00 p.m. Members will receive a discounted rate of $10 if entering after 4:00 p.m. For more information please call (212) 313-7278. For public transportation and parking info., call (212) 313-PARK (7275). The Museum is well served by public transportation.

Entrances

During Museum hours, visitors can enter the building through the second-floor Roosevelt Memorial Hall entrance (79th Street & Central Park West), or through the West 81st Street Rose Center entrance. The 77th Street entrance, the 79th Street subway entrance, and the Weston Pavilion entrance on Columbus Avenue at 79th Street are temporarily closed until further notice. Unless otherwise noted, visitors attending programs after hours can enter the building through the security entrance at 79th Street and Central Park West, down the driveway. Tickets can be picked up or purchased at the ticket desk just inside the entry.

Phone Numbers

Museum Information	(212) 769-5100
Membership Office	(212) 769-5606
Planetarium Information	(212) 769-5900
Member Birthday Parties	(212) 769-5013
Education Department.	(212) 769-5310
Planned Giving Office	(212) 769-5119
Discovery Tours	(212) 769-5700
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
Website	http://www.amnh.org

AMERICAN MUSEUM OF NATURAL HISTORY

Rotunda.
American Museum of Natural History
Received on: 11-21-01

Membership Department
Central Park West @ 79th Street
New York, New York 10024-5192
www.amnh.org

rotunda

Vol. 27 No. 1 January/February 2002

Members' Newsletter

170
152
27
1
n-Feb
02

American Museum of Natural History

marine biodiversity

by Daniel Brumbaugh

Though we may only see evidence of it occasionally, if at all, our coastal environments and even the oceans at large are in trouble. Oil spills and trash washed up on beaches may be the most obvious signs of human impact on marine systems, but other anthropogenic (i.e., human-caused) threats to biodiversity in the oceans are much more widespread. Most alarming, the web of connections among diverse species—and the ecosystem functions that these species provide—actually appear to be stretched beyond their limits in many places. These stressed systems now exist, according to much historical and archeological evidence, in highly reduced versions, providing less productivity for humans and other species and less resilience to major disturbances like epidemic diseases, hurricanes, and climate changes. Despite the seeming differences in the terrestrial and marine realms, the threats to marine biodiversity can be classified and summarized in the same way as those to terrestrial organisms. The marine environment is threatened by **habitat loss, exploitation, pollution, invasive species and climate change.**

Natural ecosystems are under widespread, systematic threats from people. For example, in coastal systems, the exploitation of fishes and invertebrates may have major effects on habitats, changing one habitat to another type through shifts in important ecological processes. Caribbean coral reefs, with overfished populations of herbivorous fishes, have largely become overgrown with macroalgae since the disappearance (through an introduced disease) of the last major sea urchin herbivore in 1983. As this example shows, effects on habitats may be further exacerbated by introduced, invasive species, as well as various types of pollution that fertilize macroalgae. Climate changes further mediate the interactions of introduced and native species, as well as certain key symbioses like the one between tropical reef-building corals and their internal microalgae. The excessive warming of surface waters, like that predicted under most scenarios of climate change, frequently causes these symbiotic corals to lose their algae—a process known as "coral bleaching"—and die.

The intense interactivity among factors requires a system-level understanding of an ecosystem and the threats to it. Such an approach can account for the dynamic relationships among diverse human-driven processes. Since environmental problems are derived from complex intersections of social and natural systems, conservation solutions need to be sought there as well.

Cover: *An elkhorn coral,* Acropora palmata, *standing isolated on the Andros barrier amidst algal-covered coral rubble.*

Right: *A large pillar coral,* Dendrogyra cylindrus, *on the forereef of Andros.*

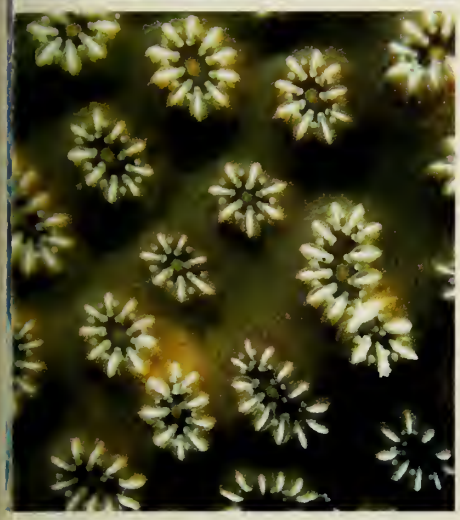
Opposite top: *A bonefishing guide with his catch-and-release flyfishing clients.*

Opposite bottom: *A close-up view of the elliptical star coral,* Dichocoenia stokes.

Photos D. Brumbaugh except where noted.

Photo Peter Ersts

The author obtaining global position satellite (GPS) coordinates from a patch of red mangroves.



rotunda

ISSN 0194-6110
Vol. 27, No. 1, January/February 2002

Mark Shoffner, *Editor*
Sandi Frank, *Copy Editor*
Rosemary Caulk, *Director of Membership*
Lynn DeBow, *Vice President for Development and Membership*
Ellen V. Futter, *President*
Lewis W. Bernard, *Chairman*

rotunda is published bimonthly, except for a combined issue in July/August/September and a single issue in December, 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*.

©2002 American Museum of Natural History.
Periodical postage paid at Strasburg, VA., and at additional mailing offices. Postmaster: Please send address changes to *rotunda*, Membership Office, AMNH, at the above address. Printed in the USA.

AMNH Bahamas biocomplexity initiative

A new five-year project of the Museum's Center for Biodiversity and Conservation (CBC), funded by the National Science Foundation's Biocomplexity Initiative, will pursue an integrated approach for the coral reef ecosystems of the Bahamas. Faced with increasing impacts from overfishing, the government of the Bahamas recently started implementing a new system of "no-take" marine reserves that restrict the taking of marine species in selected areas. These new reserves will undoubtedly have ripple effects through the nearby human communities as they develop various levels of community support and co-management, as certain fishers face the decision of still fishing inside the reserves as poachers or traveling further to fish outside the reserves, as the reserves attract additional tourists, and as patterns of coastal development shift in response. There will be corresponding biological effects outside the reserves as well, especially from the changing patterns of fishing and the impacts from increased tourism on the ecosystems. Individual reserves will also be dynamically connected in networks through oceanographic circulation, and via human migrations among islands and communities according to economic opportunities.

The Bahamas Biocomplexity project, involving researchers from nine different institutions, includes oceanographers, biologists, anthropologists and economists. Starting with more general abstract models, the research team will incrementally develop more realistic models as the required data are gathered through circulation studies, remote sensing analyses of marine habitats, field studies of fish and invertebrate population ecology and studies of human resource use, alternative economic opportunities and cultural values. The ultimate version of the models will include interactive, graphical controls that allow the users to input various reserve system scenarios and simulate likely effects on both the natural ecosystems and the human communities linked to them.

Loggerhead Turtle © Doug Perrine/seapics.com

spring symposium on "sustaining seascapes"

On March 7 and 8, 2002, just as the Biocomplexity team begins their field work in the Bahamas, the Center for Biodiversity and Conservation (CBC) will host an international symposium, "Sustaining Seascapes: The Science and Policy of Marine Resource Management," on the themes of design and implementation of marine protected areas (MPAs), MPA networks, and complementary coastal management frameworks. This event, involving invited speakers and participants from across diverse academic disciplines, government agencies, environmental non-government organizations and concerned stakeholder groups, will explore new interdisciplinary approaches to large-scale, site-based marine conservation efforts. A consortium of U.S. government agencies and environmental groups are helping to sponsor the symposium.

In addition, the CBC will host an evening series of public programs to explore the current state of marine ecosystems, fisheries, and coastal communities in the Northeast and around the world. The programs include: Coastal Fisheries Panel Discussion (February 19); *The Mangrove Forest:* Film and Panel Discussion (February 27); *Empty Oceans, Empty Nets:* Film and Panel Discussion (March 5).

For further information on the symposium, please refer to *http://research.amnh.org/biodiversity/*.

To learn more about the AMNH Bahamas project, visit *http://research.amnh.org/biodiversity/programs/marine/bahamas.*

—Daniel Brumbaugh is Marine Program Manager in the CBC.

digital library project "explores"

James P. Chapin and Herbert Lang.

In July of 1999, the Museum began working on the Digital Library Project with the generous support of The Andrew W. Mellon Foundation. The project is charged with the task of collecting, organizing and disseminating AMNH information resources by converting them to electronic formats. These "resources" include traditional library collections as well as non-traditional resources such as specimen data and will be made available over the World Wide Web. The first results of that work, focused on the AMNH Lang-Chapin Expedition of the Congo Basin, is now available at the AMNH Library Web-site: *www.library.amnh.org*.

the Congo expedition

Until the late nineteenth century, the million-square-mile inland portion of Central Africa's Congo Basin was inaccessible to those who did not live there. Until the Congo River was followed to its source in 1877, its headlands were completely unknown to mapmakers.

In 1907, AMNH began preparation to explore this most extraordinary but least understood biological region on Earth. The "American Museum Congo Expedition" was proposed and support for the project came from some of New York's most influential philanthropists. Mammalogist and photographer Herbert Lang was chosen to lead the expedition. Lang chose as his assistant James P. Chapin, a 19-year-old Columbia University student and museum volunteer. The expedition was originally funded for two years. It took six. In 1909, Chapin left New York a university sophomore and when he returned in 1915, he was a seasoned field biologist and a world expert on the fauna of Africa, particularly its birds.

Lang was probably one of the best ethnographic and wildlife photographers of his day, and Chapin was a gifted illustrator. That combination of talents made for extraordinarily rich documentation of the expedition, and of the early twentieth-century Congo.

In July 1914, with the outbreak of World War I, Lang and Chapin began the mammoth task of getting their collections back to the coast of Africa and then to New York. After six years in the Congo, Lang and Chapin had prepared spectacular specimens of okapi and square-lipped rhinos (still on exhibit in the Museum's Carl Akeley Hall of African Mammals). They had collected the most complete record of the plants, animals and cultures of the Congo Basin up to that time, including a total of 54 tons of material: 5,800 mammals, 6,400 birds, 4,800 reptiles and amphibians, 6,000 fish, over 100,000 invertebrates and 3,800 anthropological objects. In addition, they had 9,890 photographic negatives, more than 300 watercolor paintings and many volumes of field notes. At least fifteen volumes of scientific findings were later published based on the expedition's work, many of which continue to stand as both seminal and definitive works in their fields.

Visit the AMNH Library Web-site: *www.library.amnh.org* and click on "Digital Library Project" to see more.

A Potto, sitting in the fork of a tree, Congo 1909.

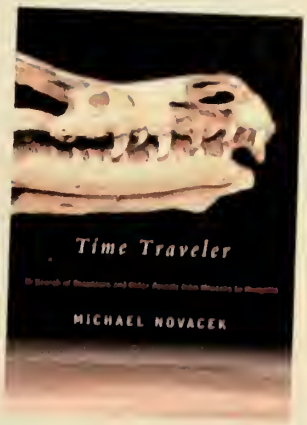
Black Forest pig, Congo 1914.

the Congo Basin

Azande porters with loads, Congo 1912.

Herbert Lang with lion cub. Exact date unknown.

Time Traveler: The Search For Dinosaurs and Other Fossils from Montana to Mongolia



***Time Traveler*, a new book by AMNH's own Michael Novacek,** relates a journey from a childhood hunt for fossils in the urban wilderness of Los Angeles to expeditions in the American West, the deserts of Baja California, the Chilean Andes and the rugged mountains of Yemen on the Arabian Peninsula. These experiences eventually brought Novacek to the foot of the Flaming Cliffs in Mongolia's Gobi Desert. The story continues with recent Gobi expeditions and the author's latest foray into the wind-swept, fossil terrain of Patagonia.

In addition to relating the trials, triumphs and science integral to expeditions, Novacek focuses on the everyday challenges confronting a student apprentice in the badlands of New Mexico and Utah. During this fledgling phase, it was just as important to learn how to drive a jeep, read a map, and walk the desert without getting lost, sun-scorched or snake-bitten as it was to find a good fossil.

Michael Novacek is Curator in the Division of Paleontology and Senior Vice President and Provost of Science at AMNH. His last book, *Dinosaurs of the Flaming Cliffs*, was a New York Times Notable Book of the Year.

Dr. Novacek will discuss his book on Thursday, February 28. Please see page 6 for more details.

members' programs

AMNH scientist Michael Novacek (wearing a red cap), in the Gobi Desert. Dr. Novacek will speak on Feb. 28.

MEMBERS' LECTURES

One Thousand Ways to Say I Love You: A Valentines Program for Members

Wednesday, February 13
7:00 p.m.

In our culture we celebrate Valentines Day by expressing love for a significant other with bouquets of roses and boxes of chocolates. Before you buy a card or plan the traditional elegant meal, bring your loved one to learn about the World's fascinating diversity of customs related to love.

Members are invited to join Laila Williamson and Naomi Goodman of the Museum's Division of Anthropology for a look at love in other cultures. Using artifacts from the Museum's collections, they will take us on a journey from Africa and Asia to Native America.

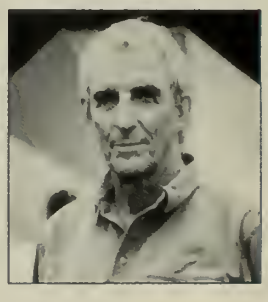
Linder Theater
Code: MM2-2
Cost: $10–Members Only

Birds of Heaven: A Members' Evening with Peter Mathiessen

Wednesday, February 20
7:00 p.m.

Cranes are ubiquitous in the earliest legends of the world's peoples, where they often figure as harbingers of heaven and omens of longevity and good fortune. Their large size and need for wilderness habitat makes them an "umbrella species" whose success assures that of other creatures and of the ecosystem at large. Moreover, the enormous spans of their migrations are a symbol of, and stimulus to, international efforts at conservation.

Peter Mathiessen is a naturalist and explorer whose many works of nonfiction include *The Tree Where Man Was Born* and *The Snow Leopard*, which won the National Book Award. *Birds of Heaven*, about his search for cranes, is his latest book.



Kaufmann Theater,
Code: MM2-3
Cost: $10–Members Only

Time Traveler: In Search of Dinosaurs and Other Fossils from Montana to Mongolia

Thursday, February 28
7:00 p.m.

Join AMNH's own Michael Novacek, recently returned from his eleventh field expedition in the Gobi Desert, as he discusses his lifelong commitment to the search for evidence of what life was like on Earth millions of years ago. He will discuss the thrills and perils of fieldwork and his most fascinating discoveries. Novacek has sought fossils from the backyard of his childhood home to the high Andes and the black volcanic mountains of Yemen, as well as the Gobi.

Michael Novacek is Curator in the Division of Paleontology and Senior Vice President and Provost of Science at AMNH. *Time Traveler: The Search For Dinosaurs and Other Fossils from Montana to Mongolia* is his latest book and is profiled on page 5.

Kaufmann Theater
Code: MM2-5
Cost: $10 Members, $12 Non-Members

BEHIND-THE-SCENES TOUR

Department of Mammalogy

Thursday, February 21
6:30, 7:00 and 7:30 p.m.

The Museum's Department of Mammalogy is home to more than 260,000 mammal specimens, used by scientists studying mammalian systematics, comparative anatomy, evolutionary history, distribution and genetics. Go behind-the-scenes with Museum scientists to the Department's new collection area—open to Members for the first time.

Code: MM2-4
Cost: $25–Members Only

FREE HALL TOURS

Minerals and Gems

Friday, February 1 and Friday, February 15
6:15 p.m.

The Hall of Minerals and Gems houses minerals, gems and stones of varying color, size and shape. Join Museum Tour Guide Norman Rothwell on a treasure hunt for the rare and the beautiful.

Code: February 1 MM2-6B
February 15 MM2-6A
Cost: Free–Members Only
Advanced Registration Required

Feathered Wonders

Friday, March 1 and Friday, March 22
6:15 p.m.

Admired for their beautiful colors and musical voices, birds are amazing creatures with fascinating biological adaptations that sometimes border on the incredible. Join Museum Tour Guide Larry Bassett to learn some amusing, surprising and marvelous facts about birds in the Museums' vast collection. You may never look at a sparrow or a Central Park pigeon the same way again.

Code: March 1, MM3-1A,
March 22, MM3-1B
Free–Members Only
Advanced Registration Required

CHILDREN'S PROGRAMS

Winter in the Wigwam

Sunday, February 3 or
Sunday, February 10, 11:00 a.m.

What did Native American children do for fun on winter evenings here in the Northeast? This workshop for children and parents will focus on Northeastern Native American games and crafts that were popular during the cold winter months. Archaeologist Susan Dublin will help us make cornhusk dolls and teach us how to play games drawn from ethnographic accounts and archaeological finds. The workshop will begin with a brief visit to the Museum's Hall of Eastern Woodland Indians, where a selection of Native American toys are on display.

This program is appropriate for children 6 and up, accompanied by an adult.

Rose Center Classroom, Code: MM2-1
Cost: $25/pair–Members Only

Crazy for Dinosaur Claws

Saturday, March 2
2:00 p.m.

How did the dinosaurs' claw enable them to hunt and compete for food? Children will make a cast of an Allosaur claw and learn how its composition made it an invaluable part of the dinosaur's anatomy. Participants will also make an Albertosaur claw talisman to wear around their necks. Pamela Popeson, artist, educator and former Director of the Museum's Fossil Reproduction Department, leads this workshop for kids ages 5-7.

Room 319 (3rd Floor)
Code: MM3-2A
Cost: $25—Members Only

Illustration by A.E. Gilbert. AMNH Special Collections.

Allosaurus Claws in Matrix

Saturday, March 2
4:00 p.m.

Imagine being on a dinosaur dig sifting through the dirt with fellow paleontologists and archaeologists when fossilized fragments of a large dinosaur claw are discovered. Scientists are often faced with the challenge of re-assembling fragments of a fossil rather than finding it complete. In this hands-on workshop, students re-assemble plaster cast fragments of a fossilized Allosaurus claw and learn the challenging process of reconstruction. Each child takes home their own finished fossil replica. Pamela Popeson artist, educator and former Director of the Museum's Fossil Reproduction Department, leads this workshop for kids ages 8-12.

Room 319 (3rd Floor)
Code: MM3-2B
Cost: $25–Members Only

Exploring the Food of Puerto Rico

Saturday, March 9
2:00 p.m.

Every culture eats distinct foods and practices special techniques in the preparation of meals. Experience the spices and flavors of Puerto Rican foods with Anibal Rodriquez, of the Museum's Division of Anthropology, who will lead participants through the preparation of traditional dishes using simple yet unique ingredients. Children will gain insight into food preparation as well as the significance of the ingredients used.

This program is for children ages 6 and older accompanied by an adult.

Room 319 (3rd Floor)
Code: MM3-4
Cost: $35/pair–Members Only

Fly Me to the Moon

Saturday, March 16
1:30 p.m.

The Moon has entranced scientists and laypersons alike for centuries. Become a Moon explorer and learn what has been discovered as a result of years of careful observation. Join Rachel Berger Connolly, Astrophysics Education Program Manager for the Rose Center for Earth and Space, and conduct experiments designed to explain craters, shadows, and the phases of the Moon.

This program is for children ages 4-6 accompanied by an adult.

Rose Center Classroom
Code: MM3-6
Cost: $25/pair–Members Only

Image NASA

COMING SOON

baseball as america

The first major exhibition to examine the relationship between baseball and American culture will premiere at the AMNH on March 16, 2002, and, after it closes on August 18, 2002, will travel to nine leading museums across the United States. Organized by the National Baseball Hall of Fame and Museum, and culled from its unparalleled collections, this unprecedented exhibition marks the first time that these Hall of Fame treasures will leave their legendary home in Cooperstown, New York. Through the exploration of a broad range of themes, including immigration, nationalism, integration, technology and popular culture, *Baseball As America* will reveal how baseball has served as both a reflection and a shaper of American society.

"Baseball and America have grown up together. In fact, The Game is such an integral part of our culture that we often take for granted its deep day-to-day significance in our lives," noted Jane Forbes Clark, Chairman of the Board of the National Baseball Hall of Fame and Museum. " In bringing this exhibition to people across the country, it is our hope that we can learn more about ourselves as a people who possess a shared set of values, as reflected through our national game."

Above: President Woodrow Wilson on the cover of the 1917 World Series Program.
Below: Jackie Robinson's jersey, 1956.
Images © National Baseball Hall of Fame and Museum.
The national tour of Baseball As America is sponsored by Ernst & Young LLP.

SAVE THE DATE!

MEMBERS' PREVIEW OF

BASEBALL AS AMERICA

FRIDAY, MARCH 15

5:30–8:30 P.M.

previously listed lectures

One Universe

Tuesday, January 15
7:00 p.m.

Neil de Grasse Tyson, Director of the Hayden Planetarium, and Charles Liu, Astrophysicist in the Museum's Department of Astrophysics, tackle a big subject: the Universe. Drawing on their book, *One Universe: At Home in the Cosmos*, which recently received the American Institute of Physics Science Writing Award, they will demonstrate how the physical principles that operate in our kitchens and backyards are actually down-to-Earth versions of cosmic properties.

Kaufmann Theater
Code: MM1-1
Cost: $10 Members, $12 Non-Members

Aquagenesis: The Origins and Evolution of Life in the Sea

Thursday, January 24
7:00 p.m.

Richard Ellis, research associate in the Museum's Department of Paleontology and ocean life specialist, takes on the deep mysteries of evolution in the sea, tracing the path from the first microbes to the jawless, finless creatures that became the myriad vertebrate species alive today, including sharks, whales, seals, penguins, dolphins and human beings.

Richard Ellis is the author of eleven books, including *The Book of Sharks, The Book of Whales, Monsters of the Sea, Deep Atlantic, Imagining Atlantis,* and *The Search for the Giant Squid. Aquagenesis* is his latest book.

Kaufmann Theater
Code: MM1-3
Cost: $10 Members, $12 Non-Members

FORMER "YOUNG ASTRONOMER" SUPPORTS AMNH ASTROPHYSICS

Following a multi-faceted career as a publisher of books on diverse topics, Museum member Stuart Daniels has now focused once again on a major interest of his childhood—Astronomy at AMNH. He writes, "My interest in and connection with the American Museum of Natural History began years ago when, as a child of nine, I visited to stare at dinosaurs and large mammals. It was there that I also became fascinated with the depiction of the Solar System and other sky phenomena. I became a member of the Young Astronomers Club then in existence at the Museum. A few years later, living only two blocks from the newly opened Hayden Planetarium, I delighted in enjoying the then revealed aspects of the Universe."

Photo C. Chesek

Stuart Daniels has indeed remembered the Museum in a vitally important and effective way, by including a generous residuary bequest in his Will to establish an endowed fund in Astrophysics. This fund in Stuart's name, which will be part of the Museum's permanent endowment, will be invested for both current income and for growth to offset inflation, and it will provide an income stream in perpetuity for the Department of Astrophysics.

For more information on arranging gifts for the Museum's endowment, please contact the Planned Giving Office at (212) 769-5119 or toll-free at (800) 453-5734.

A Gifted Idea for Your Valentine.

These luxurious, pink, freshwater cultured pearls with 14K gold plated, heart accents are inspired by the Museum's *PEARLS* exhibition.

Pearls: A Natural History by Neil H. Landman, Paula M. Mikkelsen, Rudiger Bieler, and Bennet Bronson, (softcover $29.95 or hardcover, $49.50) has all the luster and allure of its subject with fascinating photographs of pearl formation in nature and by man. 232 pages, 225 illustrations (150 in color) as shown below.

FOR MORE INFORMATION PLEASE CALL (212) 769-5150

museum notes

Following the great success of *Passport to the Universe*, the inaugural Space Show in the Hayden Planetarium in the Rose Center for Earth and Space comes...

Worlds for Life: The Biological Universe—a new space show premiering in mid-february 2002

The existence of life on Earth is spectacular and seemingly unique in the universe. The question of whether life exists beyond our world has always captivated the public's—and science's–imagination. The Hayden Planetarium's thrilling new Space Show will whisk you on an incredible journey from the Earth to the farthest reaches of space, from our solar system to newly discovered planets, on a quest for worlds that just might support life.

summer camp programs 2002

Have you ever dreamed of discovering dinosaurs? Or traveling into deep space?

Once again, AMNH is offering our exciting summer camp program for children who are entering grades 4 and 5 in the fall. Each camp is a 5-day program; sign up for one, two or all four.

Session I: Paleontology, July 8 – 12
"Fossils unlock the secrets of the dinosaurs"

Session II: Archeology, July 15 – 19
"Clues for understanding ancient worlds"

Session III: Herpetology, July 22 – 26
"Snakes, turtles and other reptiles"

Session IV: Astrophysics
July 29 – August 2
"Exploring our Universe"

The fee for each camp session is $350. For more information, please call: (212) 769-5079.

Above: Trustee Norma Hess (right) and her daughter Marlene (left) at the Museum Ball on November 15. The Ball raised over $1.2 million, a new record for the Museum.

Below: Trustee Irma Milstein and her husband Paul at the Patrons Circle Luncheon on November 8, featuring a presentation on the renovation plans for the new Milstein Hall of Ocean Life.

Young paleontologists dig for fossils at the Eighth Annual Family Party on October 24.

Birthday Parties at the Museum

Birthday parties at AMNH offer a winning combination of education and entertainment with five different exciting themes to transform your child's birthday into an unforgettable event. Choices include Safari Adventure, Dinosaur Discoveries, Global Mysteries and the Cosmic Blast-Off.

Parties are geared to children ages 5 and up, are planned seven days a week, and are available to Contributor and higher level Members only.

For more information, please contact Linda Kaye's Partymakers at (212) 288-7112.

Cookies and Hot Chocolate Special

This winter, Restaurant Associates is pleased to offer Members acomplimentary Pearl Oyster Shortbread cookie (a $2.50 value) with the purchase of the season's best drink, Old Fashioned Hot Chocolate, made with the finest Belgian Chocolate—12 ounces for $2.50.

As always, Members receive a 15% discount on all Restaurant Associates purchases. Please show your Membership card at the beginning of your transaction.

Reminder: The Hall of Ocean Life closes January 2, 2002, for renovations and will re-open in 2003.

From here...

This view can be yours.

D. Finnin / AMNH

THE POWERHOUSE

AT THE AMERICAN MUSEUM OF NATURAL HISTORY

A contemporary loft space overlooking the Ross Terrace and the Rose Center for Earth and Space

Receptions to 600, Lunches and Dinners to 350

For complete information call Catering at 212-769-5817

AMERICAN MUSEUM ŏ NATURAL HISTORY
DISCOVERY TOURS

THE AMAZON

Discovering its Natural Wonders aboard La Amatista

Throughout history, the legends of the Amazon have enticed explorers and adventurers. Arriving in Peru, we spend a night in Lima before flying over the spectacular Andes Mountains to Iquitos, where we board our 14-cabin riverboat, *La Amatista*. We then follow the main channel of the Amazon River to the secluded waterways beyond the confluence of the Ucayali and Marañón Rivers—the Amazon's legendary source. Steadily retreating from modern civilization, we become immersed in primitive, untouched rain forest, visiting remote villages and viewing spectacular wildlife.

2002 DEPARTURES: FEBRUARY 23-MARCH 3; MARCH 2-10; MARCH 9-17

For more information, call

(800) 462-8687 *or* (212) 769-5700

Rotunda.
American Museum of Natural History
Received on: 01-09-02

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.	10:00 a.m. - 7:45 p.m.

Café on 4

Fri. & Sat.	10:00 a.m. - 7:45 p.m.

Café 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

Parking is available at our facility conveniently located within the Museum; enter at 81st Street between Central Park West and Columbus Avenue. The hours of operation are 8:00 a.m.-11:00 p.m. Members will receive a discounted rate of $10 if entering after 4:00 p.m. For more information please call (212) 313-7278. For public transportation and parking info., call (212) 313-PARK (7275). The Museum is well served by public transportation.

Entrances

During Museum hours, visitors can enter the building through the second-floor Roosevelt Memorial Hall entrance (79th Street & Central Park West), or through the West 81st Street Rose Center entrance. The 77th Street entrance, the 79th Street subway entrance, and the Weston Pavilion entrance on Columbus Avenue at 79th Street are temporarily closed until further notice. Unless otherwise noted, visitors attending programs after hours can enter the building through the security entrance at 79th Street and Central Park West, down the driveway. Tickets can be picked up or purchased at the ticket desk just inside the entry.

Phone Numbers

Museum Information	(212) 769-5100
Membership Office	(212) 769-5606
Planetarium Information	(212) 769-5900
Member Birthday Parties	(212) 769-5013
Education Department.	(212) 769-5310
Planned Giving Office	(212) 769-5119
Discovery Tours	(212) 769-5700
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
Website	http://www.amnh.org

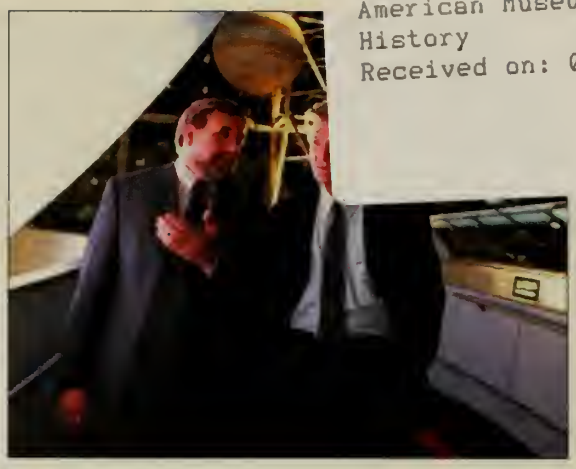


Image Cour

Brian Howe and Jeff Bridges in the film K-Pax filmed partly on location in the Rose Center.

Membership Department
Central Park West @ 79th Street
New York, New York 10024-5192
www.amnh.org

AMERICAN MUSEUM OF NATURAL HISTORY

Currently on exhibit:

PEARLS through April 14

The Butterfly Conservatory through May 28

rotunda

QH70
.U52
N5
v. 27
no. 2
Mar-Apr
2002

: MARCH/APRIL 2002

MEMBERS' NEWSLETTER

Jackie Robinson's Brooklyn Dodger's Jersey
© National Baseball Hall of Fame and Museum

baseball as america

march 16–august 18

AMERICAN MUSEUM OF NATURAL HISTORY

baseball as america

"Baseball plays a unifying role, bringing together people of all backgrounds and from all geographic locations, strengthening our sense of community. Clearly this is especially important in these times," said Ellen V. Futter, President of the American Museum of Natural History. "This fascinating exhibition examines all aspects of our national pastime, from its 19th-century origins in New York State to its deeply embedded roots in American culture, indeed to its proliferation and popularity around the world, and in the process reveals the profound role of games and sport in societies across the globe."

Baseball As America, organized by the National Baseball Hall of Fame and Museum in Cooperstown, New York, will be on exhibit March 16–August 18 at the American Museum of Natural History. Organized in thematic sections, it explores the changing roles baseball has played in American culture and history, and examines its unique position in our national life. The exhibition will examine such aspects of The Game as the rituals of fans and players; myth making and the role of heroes; the impact of technology on performance; segregation, integration, and baseball's role as a ladder of mobility; The Game's evolution as a business; the physics of the home run and the curve ball; and baseball's presence in popular culture

President Woodrow Wilson on the cover of the 1917 World Series program © National Baseball Hall of Fame and Museum

Doubleday Ball
© National Baseball Hall of Fame and Museum

as a subject and metaphor; among many others. Ultimately, *Baseball As America* will reveal how the development of American culture can be traced through a 19th-century game, reflecting everything from our language and literature to movies, mass communication, and diet.

The exhibition will include approximately 500 of the Hall of Fame's most precious artifacts, dating from baseball's early roots in the 19th century to today, ranging from uniforms, balls, bats and gloves, to books, recordings, artworks, and films, to historic documents, advertising, and ephemera. Among the highlights of the exhibition are The Game's most sacred relic, the Doubleday Ball, from baseball's mythic first game in 1839; Jackie Robinson's 1956 Brooklyn Dodgers jersey; a variety of artifacts from the All-American Girls Professional Baseball League; record-setting bats from the Mark McGwire-Sammy Sosa home run chase of 1998, as well as those of Babe Ruth (home run #60 in 1927) and Roger Maris (home run #61 in 1961); FDR's January 15, 1942, "Green Light" letter calling for the continuation of professional baseball as a way to heighten morale during World War II; Norman Rockwell's 1949 painting *The Three Umpires*; the "Wonder Boy" bat from the movie *The Natural*; a 1908 Thomas Edison recording of "Casey at the Bat"; "Shoeless" Joe Jackson's shoes; and the most valuable baseball card in the world, the T206 Honus Wagner.

"A cultural focus on something so familiar as baseball has produced an exhibition that is both thought-provoking and revealing," noted Craig Morris, Senior Vice President, Dean of Science, and Curator, Division of Anthropology, American Museum of Natural History. Visitors will be able to look at baseball's customs, values, and rituals, as manifested in ball playing in enclosed parks that required an admission fee. Smart businessmen understood the potential of profit in such an undertaking and the business of ballparks soon took off. An original ticket window from Comiskey Park, built in 1910, and a turnstile from the Polo Grounds, will help illustrate this theme.

"Baseball plays a unifying role, bringing together people of all backgrounds and from all geographic locations, strengthening our sense of community."

- ELLEN V. FUTTER, PRESIDENT, AMNH

The exhibition is organized into seven sections, each addressing a series of related ideas and issues that reveal the impact of baseball on American culture. The sections are:

Our National Spirit

Baseball is so closely identified with American ideals and identity that it has often served as an expression of patriotism. In times of prosperity and challenge, baseball has served as a rallying point for the nation.

Ideals and Injustices

Through time, baseball has mirrored the social structure of American society. Among the many issues with which our country and our national pastime have wrestled, none better demonstrates the ways in which baseball simultaneously reflects and influences American culture than does the struggle for integration.

St. Paul Gophers—one of the premier Negro Leagues Teams, 1909 © National Baseball Hall of Fame and Museum

Rooting for the Team

Complex and archaic rituals, both those followed by the players themselves and those shared by fans, dominate The Game.

Enterprise & Opportunity

For many people, baseball is a game; for some it is a passion; and for others it is a philosophy. But, for a significant number of people, baseball is a business. What began as an informal ball game and grew more structured as baseball social clubs were organized, has now evolved into a complex economic web involving franchises, players, fans, cities, media conglomerates, advertisers, sports equipment manufacturers, bubble gum makers, and countless others.

Sharing a Common Culture

Pop culture holds up a mirror to society. When Americans gaze into that mirror, the reflection they see is very likely wearing a baseball cap. Preschoolers sing "Take Me Out to the Ball Game." Executives make "ballpark estimates." Politicians warn, "three strikes and you're out." Nearly all Americans participate in our national pastime... often without even knowing it.

Invention & Ingenuity

This section will examine how the evolution of the design of equipment and the use of new materials has improved player performance and safety. Advancements in technology have also greatly affected the impact of baseball on American life and culture.

Weaving Myths

The need to create myths and make icons are two characteristics prevalent across societies and cultures. In America, baseball players often fulfill the dual role of hero and cultural icon because they are imbued with traits we admire and that resonate through time.

The national tour of Baseball As America *is sponsored by Ernst & Young LLP.*

Members receive a special discounted price of $7.50 for adults and $4.50 for children for special exhibitions including Baseball As America, Pearls, *and* The Butterfly Conservatory.

rotunda

ISSN 0194-6110
Vol. 27, No. 2, March/April 2002

Rosemary Caulk, *Director of Membership*
Lynn DeBow, *Vice President for Development and Membership*
Ellen V. Futter, *President*
Lewis W. Bernard, *Chairman*

rotunda is published bimonthly, except for a combined issue in July/August/September and a single issue in December, by the Membership Office of the American Museum of Natural History, Central Park West at 79th Street, New York, N.Y. 10024-5192. Phone: (212) 769-5606. Web address: www.amnh.org. Museum membership of $45 per year and up includes a subscription to *rotunda*. ©2002 American Museum of Natural History. Periodical postage paid at Strasburg, VA., and at additional mailing offices. Postmaster: Please send address changes to *rotunda*, Membership Office, AMNH, at the above address. Printed in the USA.

new space show

the search for life: are we alone?

Mars: AMNH/NASA

Century after century, people have looked to the stars with questioning and dreaming minds. Sailors and farmers have found guidance; poets and lovers, inspiration; scientists and scholars, answers. But all of them, and everyone who has ever looked heavenward, have also found questions in the cosmos. Perhaps the most common question pondered over thousands of years is, "Are we alone?"

Does life exist anywhere else in the universe? Ancient mythologies and contemporary science fiction have presented imaginative possibilities, but how does modern science approach this question?

The Search for Life: Are We Alone? at the Rose Center for Earth and Space begins to answer this intriguing question in a breathtaking new Space Show narrated by Academy Award–nominated actor Harrison Ford. Answers begin to emerge as we consider these newly revealed facts:

- life on Earth can thrive in environments previously thought hostile and inhospitable;
- there are planets outside our solar system, a fact only recently confirmed; and,
- the processes that created our Sun and solar system and ultimately allowed life to develop and flourish on Earth are the same processes that have created every other star and planet in the Galaxy and continue to do so today.

The distance radio waves have traveled from Earth: AMNH

An exhilarating journey from the depths of Earth's oceans and onward to planets outside our solar system, *The Search for Life* depicts how scientists are searching, as never before, for signs of life beyond our world.

Premiering in March 2002, *The Search for Life* is the centerpiece presentation of the Frederick Phineas & Sandra Priest Rose Center for Earth and Space of the American Museum of Natural History. Presented in the Hayden Planetarium Space Theater, which houses the world's largest virtual reality simulator, *The Search for Life* uses scientific data to create dazzling visualizations and animations—many developed for this show—that allow us to travel through space and time and witness phenomena as never before.

The Search for Life will take visitors to:
The depths of Earth's oceans—Just 25 years ago, scientists discovered life thriving in the most extreme of terrestrial environments, more than a mile below the ocean surface. Here, in perpetual darkness and scalding temperatures, and under intense pressure, the presence of microbes, tube worms, clams, crabs, and skates indicates that the conditions for life are more widely varied than was previously believed.

The planet **Mars**—Actual imaging data from NASA's Pathfinder mission create a 3-D experience that allows us to take a walk on the fabled Red Planet, where liquid water, one of the essential harbingers of life as we know it, may lie under the surface.

Mars: AMNH/NASA

Europa, one of Jupiter's four giant moons—Europa is encased in an icy crust that shows signs of covering a deep ocean of liquid water. Hot springs on the floor of that ocean may well support life.

A **stellar nursery**—Galaxies, including our own Milky Way, are "factories," recycling matter to manufacture stars and planets within a swirling cosmic soup of gas and dust. Groundbreaking scientific simulations developed by an astrophysicist at the American Museum of Natural History will depict this complex and awe-inspiring process.

An **exoplanet**, a planet outside our solar system—Less than a decade ago, scientists had no knowledge of planets outside our solar system because we had no way to detect them. Technology has now enabled scientists to identify nearly 100 exoplanets in our Milky Way Galaxy. More are being discovered at an astonishing rate. In fact, planets likely outnumber the stars. These exoplanets offer the tantalizing possibility of life flourishing elsewhere.

Jupiter, Europa: AMNH/NASA

We are at the dawn of a new age of exploration. Our Galaxy, along with the awesome universe beyond, contains countless worlds yet to be discovered and explored. How many of them may harbor life?

Join us at the Rose Center for Earth and Space as we explore the intriguing possibility that we may not be alone. To order tickets, call 212-769-5200 or visit www.amnh.org.

The Search for Life: Are We Alone? *has been developed by the American Museum of Natural History in collaboration with the National Aeronautics and Space Administration (NASA).*

It was written by Ann Druyan and Steven Soter, with music by Stephen Endelman.

The Search for Life: Are We Alone? *is made possible through the generous support of* **Swiss Re**

Sir Martin Rees, Royal Astronomer, visits AMNH

The Astronomer Royal Speaks at the Hayden Planetarium

by Charles Liu, Astrophysicist
American Museum of Natural History

Museum Members and visitors were treated to a very special lecture on December 3, 2001, given by Great Britain's Astronomer Royal, Sir Martin Rees. As part of the Hayden Planetarium's Distinguished Authors in Astronomy lecture series, Sir Martin spoke about the latest advances in the study of the origin and evolution of our universe in a talk titled "Our Cosmic Habitat." Dr. Rees, a Royal Society Professor at Cambridge University, is one of the world's preeminent theoretical cosmologists and, as Astronomer Royal, continues a long tradition of Britain's greatest scientists, including Sir Edmund Halley (of Halley's Comet fame). This past year, Dr. Rees received the 2001 Cosmology Prize from the Peter Gruber Foundation for lifetime scientific achievement in the field.

Speaking to a full house in the Hayden Planetarium Space Theater, Sir Martin described to the audience the cutting edge of astrophysical research today; the challenges and extensions to the Big Bang theory; the fundamental parameters of our universe that make it habitable for humans; and the possibility that other universes exist, parallel with our own. After the lecture, Dr. Rees signed copies of his many popular books on astronomy and cosmology, and conversed with lecture-goers in the Rose Center.

The Rose Center's Hayden Planetarium presents a full program of lectures and courses throughout the year, with special discounts available to Museum Members. Look for lectures this spring on the shape of the universe (April 22), the mysteries of star birth (May 6), and the case for "cosmic antigravity" (June 3). For program details, consult the Spring 2002 Museum Calendar or visit www.amnh.org, where tickets may be purchased online. To order tickets by telephone, call 212-769-5200.

members' programs

LECTURE

Mead lecture

Tuesday, April 2, 7:00 p.m.

Margaret Mead was many things to many people—a field ethnographer, a psychological anthropologist, a pioneer in the use of photography in fieldwork, and a student of cultural change. Mead was the most famous anthropologist of her day, yet her work was accessible to all. Although Margaret Mead belonged to the world, she also belonged to the American Museum of Natural History, where she worked from 1926 until her death in 1978.

Dr. David Hurst Thomas, Curator in the Division of Anthropology, worked with Mead at the Museum for eight years, first as a colleague and then as her Department Chair. In his talk, Thomas discusses Mead's role as a museum anthropologist and shares some personal remembrances and rare film clips from her life and career.

Kaufmann Theater
Code: MM4-10
$10—Members Only

Baseball: The New York Game

Saturday, April 6, 2:00 p.m.

Learn about New York's contribution to the great American pastime at this slide talk by Tony Morante, Director of Stadium Tours for the New York Yankees. From 19th-century "challenges" to Alexander Joy Cartwright's codification of the game with the Knickerbockers and other early teams through the beginnings of professional baseball and the founding of the American League, baseball's past is a fascinating blend of social history, technological development, and popular culture. The history and legends of the New York Yankees, the New York Mets, and New York teams of the past will fascinate fans of all ages!

Kaufmann Theater
Code: MM4-1
$10 Members; $12 Non-Members

FREE HALL TOURS

Artists & Explorers: Women

Saturday, April 27 and Sunday, April 28
4:00 p.m.

Travel through the halls of the AMNH and meet some of the amazing women who have significantly influenced the Museum throughout its history. We begin this series of Artists & Explorers hall tours, led by Museum Tour Guide Suzi Zetkus, by learning about women curators, scientists, artists, and explorers and their contributions to the collections, their pursuit of science, and their enthusiasm for the artistry found throughout the Museum.

Codes: Saturday, April 27 (MM4-9A)
Sunday, April 28 (MM4-9B)
Free—Members Only

Search for the Nile

Saturday, May 4 and Sunday, May 5
4:00 p.m.

Follow in the footsteps of the famous 19th-century explorers, Burton, Speke, Grant, Baker, Stanley, and Livingstone. What were these seekers of adventure looking for? What did they find? Join Museum Tour Guide Wanda Finch and discover the triumphs and failures of past expeditions.

Codes: Saturday, May 4 (MM5-1A)
Sunday, May 5 (MM5-1B)
Free—Members Only

The Art of the Diorama

Wednesday, May 22 and
Thursday, May 23
*6:30 p.m.*The Museum is renowned for its beautiful dioramas depicting wildlife specimens in realistic natural settings. Join Steve Quinn of the Department of Exhibition for a tour of these unique works of art and science. During our exploration, we'll learn about the extraordinary team of curators and artists who created these famed dioramas, and about the techniques used in their craft.

Code: Wednesday, May 22 (MM5-7A)
Thursday, May 23 (MM5-7B)
$25—Members Only

SPECIAL MEMBERS' PROGRAMS

AMNH Members' Day at Yankee Stadium

Saturday, April 13
10:00 a.m., 11:00 a.m., 1:00 p.m., and 2:00 p.m.

Join us for a special AMNH day of behind-the-scenes tours at the legendary home of the Bronx Bombers. Opened in April 1923, Yankee Stadium has been an arena for many of the greats in baseball. Highlights of the tour include visits to the dugout, the Club House, the Press Box, and Monument Field, which pays tribute to Yankee greats such as Lou Gehrig, Babe Ruth, Joe DiMaggio, Mickey Mantle, and many more.

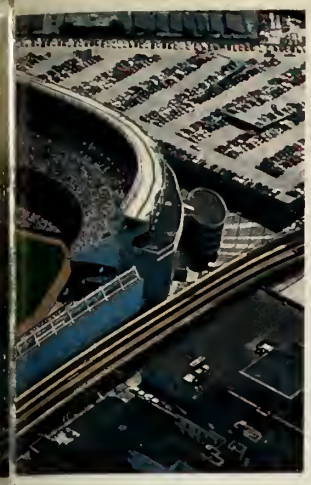
Codes: 10:00 a.m. (MM4-3A)
11:00 a.m. (MM4-3B)
1:00 p.m. (MM4-3C)
2:00 p.m. (MM4-3D)
$15 adults; $8 children—Members Only

Behind the Scenes in the Department of Earth and Planetary Sciences

Tuesday, April 23
6:30, 7:00, and 7:30 p.m.

Scientists in the Department of Earth and Planetary Sciences are dedicated to the investigation of terrestrial and planetary processes. Take advantage of this unique opportunity to meet three curators in the department who explore different parts of the world in hopes of gaining a deeper understanding of Earth and the solar system.

Dr. James Webster will discuss his research on the eruptions of Mount



Yankee Stadium
Courtesy NY Yankees

Vesuvius, Italy. Dr. Denton Ebel will speak on his research efforts involving meteorites and the clues they offer to the origins of our solar system. Dr. Edmond Mathez will talk about his research on the platinum deposits of the Bushveld Complex of South Africa.

Codes: 6:30 p.m. (MM4-7A)
7:00 p.m. (MM4-7B)
7:30 p.m. (MM4-7C)
$25—Members Only

Members' Star Party

Wednesday, May 15
6:00 p.m., 6:30 p.m., 7:00 p.m., and 7:30 p.m.
Spend an evening gazing at deep-sky objects and heavenly bodies under the guidance of staff members from the Rose Center for Earth and Space.

In a small group setting, Members will learn star-hopping techniques and how to use a telescope, followed by the chance to put these skills to work under the planetarium's stars. Enjoy one-on-one attention and share in the enthusiasm and wonder that comes from gazing at the stars.

Rose Center for Earth and Space
Codes: 6:00 p.m. (MM5-5A)
6:30 p.m. (MM5-5B)
7:00 p.m. (MM5-5C)
7:30 p.m. (MM5-5D)
$20—Members Only

CHILDREN'S PROGRAMS

Big League Diorama

Sunday, April 14
10:00 a.m. (Ages 6 and 7)
1:00 p.m. (Ages 8 and up)
Join AMNH in celebrating America's favorite pastime and create your own baseball diorama in the tradition of the Museum's world-renowned diorama exhibition techniques. We will design and hand-model all of the elements found in a baseball stadium—dugouts, bases, turf, and much more! Learn fun facts about baseball and other sports while you build your diorama. Pamela Popeson, artist/educator, avid baseball fan, and a seasoned Central Park player, leads this workshop. Bring in your own baseball memorabilia to personalize your diorama (optional).

Room 319
Code: 10:00 a.m. (MM4-4A)
1:00 p.m. (MM4-4B)
$30—Members Only

Exploring the Food of Africa

Saturday, April 20
2:00 p.m.
Every culture eats distinct foods and practices special techniques in the preparation of meals. Experience the spices and flavors of African foods with Edith Gonzalez of the Museum's Department of Education, who will lead participants through the preparation of traditional dishes using simple yet unique ingredients. Children will gain insight into food preparation as well as the significance of the ingredients used. Please note: Children allergic to peanuts should *not* participate in this workshop. (Ages 6 and older; each child accompanied by an adult)

Room 319
Code: MM4-6
$35/pair—Members Only

Space Camp

Saturday, April 27
1:30 p.m.
What do astronauts eat in space? What kinds of toys do they play with? For astronauts, living, working, and playing in a microgravity environment is much different from doing so on Earth. In a small group setting, participants will conduct experiments while learning about life in space. Rachel Berger Connolly, Astrophysics Education Program Manager for the Rose Center for Earth and Space, leads this program. (Ages 7–10)

Rose Center Classroom
Code: MM4-8
$25—Members Only

MEMBERS' EXCURSION

New Jersey Pine Barrens

Wednesday, May 29
8:30 a.m.–6:00 p.m.
The Pine Barrens has a smaller human population density then it did in 1835 and a diversity of plant species greater than any other part of the Atlantic Coastal Plain. Although heavily affected by human activity, this region, comprising 22 percent of New Jersey, has a plethora of rare and endangered plant and animal species, fascinating geology, and is rich in cultural history.

South River in New Jersey's Pine Barrens.

During this expedition, we will explore the pygmy forests where trees grow into unimaginable, grotesque forms that rarely exceed 12 feet in height. Along the way, we will lunch at Batsto Historic Park and will conclude with a trip through the third largest cranberry-producing region in the United States.

Wayne Cahilly, a native of the region and a horticulturist with the New York Botanical Garden, leads this tour.

Code: MM5-8
$65—Members Only

Photo: NASA

For all Members' programs please call Central Reservations at (212) 769-5200. All programs, with the exception of lectures, require advance registration.

science and nature program for children

The Science and Nature Program for Young Children

Fifteen preschoolers in safari vests troop through the early morning quiet of the American Museum of Natural History. Parents in tow, flashlights in hand, the Dzanga-Sangha rain forest in sight, these "Young Explorers" are on a safari conducted by the Museum's Science and Nature Program for Young Children (SNP). This unique program introduces science in the Museum setting to young children starting at age three, and to the parents and teachers who accompany them in a joint process of discovery. Now in its fourth year, the SNP is, according to its director, educator Jane Kloecker, "the first ongoing program at the Museum that begins by teaching science in depth to preschoolers."

Six-to eight-year-olds looking at the lunar landscape photographs in the Rose Center. | Photo: J. Kloecker

A Safari into the Rain Forest...or the Universe!

Every SNP session entails a science-themed excursion into the halls of the Museum, along with related and supporting work in the classroom. "The Museum's vast resources have enchanted generations of children, and children love adventure. So, in keeping with the Museum's history, we use the idea of an expedition as a springboard for discovery," says Kloecker. The students have done "field work" in the Rose Center for Earth and Space, in the Butterfly Conservatory exhibition, and in the Hall of Biodiversity, to name just a few of the many possible destinations the Museum offers.

After school "Young Scientists" engaged in the study of insects. | Photo: J. Kloecker

Home base for the "expedition team" is the SNP classroom, which is carefully designed to provide an environment rich with experiences. Museum specimens and artifacts, science books and equipment, and educational materials fill the room, which is bright, colorful, and inviting. Here, the children can also observe, handle, and care for live local and exotic arthropods, reptiles, and amphibians that reside in the classroom's terraria. Such contact with living things provides a special introduction to nature and the environment for city children.

Scientists from the Museum's scientific divisions and specialists from the Education and Exhibition departments guest-teach classes in conjunction with the SNP's early childhood educators.

A Model of Early Childhood Science Education

The SNP classes held at the Museum serve as a "laboratory" in which Program staff create curricula and teaching strategies for early childhood science education. Developing effective science experiences for young children requires determining both what is scientifically important and what is age appropriate. The SNP addresses these issues in two components of the program: partnerships with community centers and public schools, and a tuition-based program. The large outreach component of the SNP involves partnerships with community centers—their Head Start, shelter, and daycare programs—and with selected public

schools. Teachers, staff, and parents from the collaborating organizations accompany their children to the Museum for science and nature exploration. During the SNP's first year, an integral partnership, which continues to this day, was formed with the Head Start program (GRHS) of the Goddard Riverside Community Center, located near the Museum. The four-year-old children participating in GRHS come to the Museum for weekly bilingual science classes, and special sessions are taught by SNP educators at Goddard Riverside for the parents of the participating children. Other Upper West Side partners include the Escalera Head Start program from St. Matthew's and St. Timothy's Community Center; West End Intergenerational Residence; and P. S. 75. The Harbor for Boys and Girls in East Harlem, P. S. 2 in Chinatown, and Phipps Houses in the Bronx also work with the SNP.

A smaller part of the SNP is a tuition program for families on weekdays during the school year. Each family usually enters the Program through introductory classes for three-year-old children and their parents. There are no weekend or summer classes and financial aid is available. Space in the program is limited and classes fill up nearly a year in advance.

A Science and Nature Program instructor teaching Goddard Riverside Alumni. | Photo: J. Kloecker

The dual focus of both components of the SNP is to interest children in science

A three-year-old studies reptiles. Photo: R. Mickens/AMNH

at an early age and to draw their parents and teachers into the excitement and accessibility of the Museum's vast and ever-changing resources. Adult participants—including some fathers and grandparents, a rarity in early childhood programs—form a community of enthusiastic learners who view the Museum as their "special place" which they can enjoy returning to again and again.

Lessons from the SNP: Visiting the Museum with Your Child

Kloecker encourages families visiting the Museum with young children to use the SNP's approach by making their visits a fun adventure with an educational twist. To do so, she suggests the following approach:

With 45 exhibition halls, the Museum offers a wealth of things to see and do. With young children, it is best to focus your visit and not try to do too much. Frequent visits offer the opportunity to see all that the Museum has to offer in manageable pieces.

Start your expedition in the Discovery Room, which offers an engaging hands-on experience for children. For instance, if your children are interested in dinosaurs, the Discovery Room gives them the chance to dig for fossils in a pit, handle real fossils, and assemble a full-size model of a fossil of the reptile Prestosuchus. After a visit to the Discovery Room, you'll enjoy the Museum's fourth floor fossil halls even more.

Focus on only one or two dioramas or exhibits during your visit. Look carefully at every detail, talk about what stories the specimens tell, and let your children's imagination take off.

Help your children think of themselves as scientists by encouraging their natural interests. Pretend you are paleontologists studying dinosaurs on an expedition at the Museum and see what you discover.

Finally, together with your children, read books related to what you see at the Museum both before and after your visit. Reading will spark questions, reinforce ideas, and fuel their passions and interests.

Participants from the Harbor for Boys and Girls Photo: J. Kloecker

*The Science and Nature program is generously supported by **Bank of America**, which has a deep and abiding commitment to the growth and creativity of children. Additional support for the program is provided by The Seinfeld Family Foundation and The Dickler Family Foundation.*

museum notes

Photo: Helen O. Hoffert

Linda Kaye's Partymakers Birthday Party of the Month

Six-year-old Michael Anne Hoffert-Cone is ready for a wild time at her Safari Adventure Birthday Party at AMNH! Michael Anne and her friends are outfitted with pith helmets as they set off on fantastic adventures through the Hall of African Mammals, stretching from the heart of the jungle to the grassy plains! Other available party themes include Dinosaur Discoveries, Global Mysteries, and Cosmic Blast-Off. Parties are for children ages four and older and are available seven days a week.

For more information and to request a date see our online brochure at www.partymakers.com or call Linda Kaye's Partymakers at ***(212) 288-7112.***

Restaurant Associates

To celebrate the launching of the Rose Center's new Space Show, *The Search for Life: Are We Alone?* Restaurant Associates is pleased to offer AMNH Members a complimentary Planet Cookie (a $2.50 value) with the purchase of any two Planet Cookies, including Planet Earth, Saturn, Mars, Jupiter, Nebula, or Galaxy Trio. These delicious and colorful shortbread cookies are made exclusively for the Museum and make great treats or gifts for all planet-gazing kids.

As always, Members receive a 15% discount on all Restaurant Associates purchases. Please show your Membership card at the beginning of your transaction.

Classic American Steakhouse Buffet

On Thursday, March 14, and Friday, March 15, from 5:30 until 8:30 p.m., Executive Chef Frank Polchinski, Restaurant Associates Chef at the American Museum of Natural History, creates a culinary tribute to *Baseball As America* with a Classic American Steakhouse Buffet. Just as baseball is uniquely American, no other culinary institution speaks better of our tradition than the American invention of the steakhouse. For decades now, every American city on the ball game circuit has featured great steakhouses, frequented by ballplayers, fans, and celebrities alike, all meeting to enjoy America's unique bounty.

Chef Frank presents an exceptional menu with dry-aged New York Sirloin, Lobster Pot Pie, Roast Capon, Kansas City Ribs, and, as an added attraction, an authentic selection of American regional ballpark franks! Start your meal with Baltimore Crab Cakes, Clam Chowder, or Caesar Salad and finish with Apple Pie à la mode or Double Chocolate Layer Cake. Our great American menu is accompanied by superbly crafted beers from Brewery Ommegang in Cooperstown, New York, and a selection of red and white wines from California.

The Powerhouse
Adults $65 per person; children $20

Call Central Reservations at **(212) 769-5200** to reserve your space now.

Link your name with a Seat for Science

In the Newly Renovated Samuel J. and Ethel LeFrak Theater

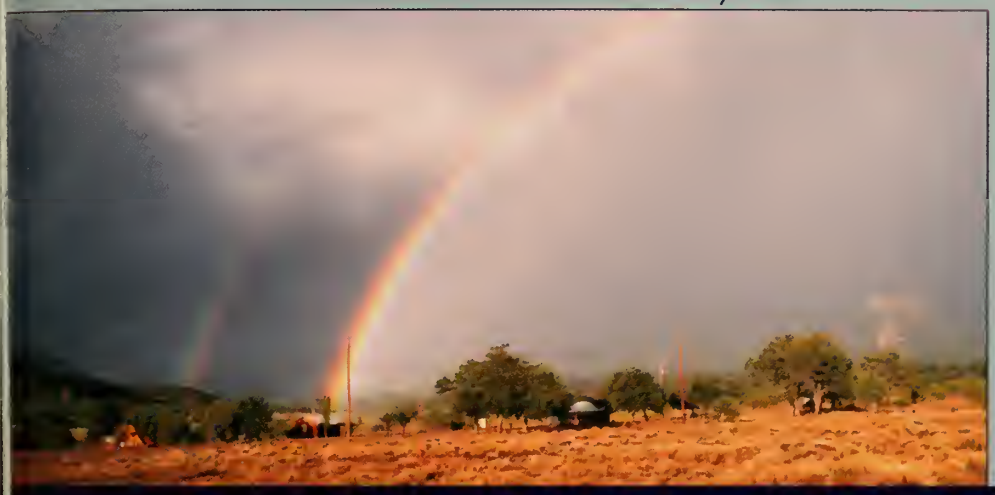
Help perpetuate the American Museum of Natural History's long tradition of scientific research into the natural world by endowing a Seat for Science in the Museum's Samuel J. and Ethel LeFrak Theater, an auditorium for viewing IMAX films and for conferences and symposia on important scientific topics.

Your generous contribution of $2,500, in honor or in memory of a loved one or in celebration of a special occasion, will support the Museum's endowment for scientific research, and will help provide today's, and tomorrow's, scientists with the essential tools to address our world's many mysteries and challenges.

In recognition of your generosity, a plaque on each seat that you sponsor will link your name with the renowned research and expeditions at the American Museum of Natural History.

For more information, please call (212) 769-5207.

Margaret Mead Anthropology Series



Discovery Tours

LIVING THE NAVAJO WAY

October 6-13, 2002

Join Discovery Tours as we travel to the American Southwest to learn about the proud traditions of the Navajo people. Together we explore this mystical culture where story, song, dance, art, and healing ceremonies intermingle with the rhythm of daily life and the awesome physical surroundings of the American Southwest.

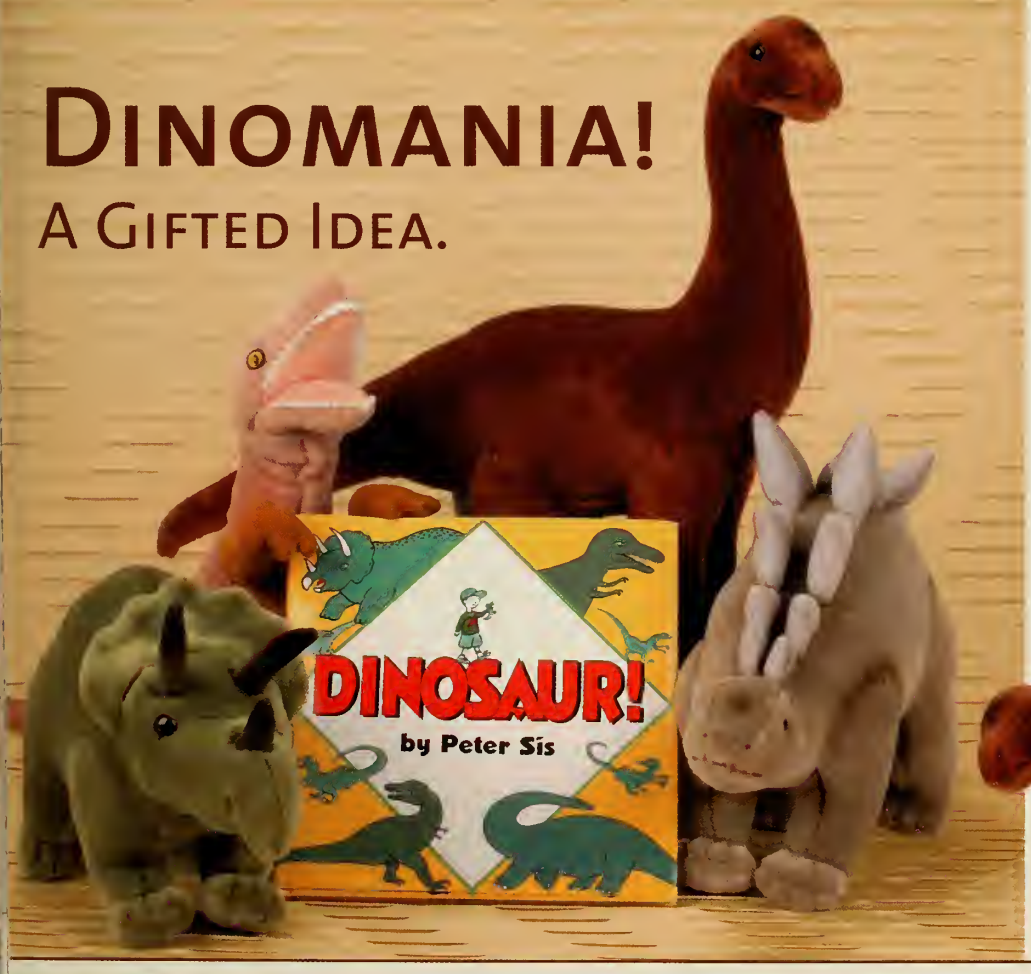
THE MARGARET MEAD ANTHROPOLOGY SERIES
AMNH SIGNATURE SERIES 2002

For program details and pricing, please call Discovery Tours at 800-462-8687 or 212-769-5700

EXPEDITIONS THROUGHOUT THE WORLD WITH DISTINGUISHED SCIENTISTS AND EDUCATORS

Dinomania!

A Gifted Idea.



Kids adore our cute, cuddly plush dinosaurs, including, *Stegosaurus*, *Brachiosaurus*, *Tyrannosaurus rex*, *Triceratops*, and *Velociraptor* (sizes 6"–27").

Dinosaurs have often inspired the active imaginations of children. In his wordless book, *Dinosaur!*, Peter Sis illustrates one such boy, whose elaborately detailed imaginings of dinosaurs keep him entertained during his nightly bath.

AMERICAN MUSEUM of NATURAL HISTORY

FOR MORE INFORMATION PLEASE CALL: (212) 769-5150

Rotunda.
American Museum of Natural History
Received on: 03-07-02

Museum Hours

Daily	10:00 a.m.–5:45 p.m.

The Rose Center remains open on Friday until 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.–5:15 p.m.

Café on 4 (hours subject to change)

Sat & Sun	11:00 a.m.–4:45 p.m.

Parking

Parking is available at the Museum; enter at 81st Street between Central Park West and Columbus Avenue. The hours of operation are 8:00 a.m.–11:00 p.m. Members will receive a discounted rate of $10 if entering after 4:00 p.m. For more information please call (212) 313-7278. You must have your parking ticket validated at the Security Desk (first floor, Central Park West entrance) to receive this special evening rate.

Entrances

During Museum hours, visitors can enter the building through the lower-level subway entrance, the second-floor Roosevelt Rotunda entrance (79th Street & Central Park West), or the West 81st Street Rose Center entrance. The 77th Street entrance and the Weston Pavilion entrance on Columbus Avenue at 79th Street are closed until further notice.

Phone Numbers

Museum Information	(212) 769-5100
Membership Office	(212) 769-5606
Planetarium Information	(212) 769-5900
Member Birthday Parties	(212) 769-5013
Education Department	(212) 769-5310
Planned Giving Office	(212) 769-5119
Discovery Tours	(212) 769-5700
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
Web site	www.amnh.org

AMNH eNotes delivers the latest information on Museum programs and events to you via email. Visit www.amnh.org to sign up today!

Children have fun with face painting, paper fish, and more at the Member's Holiday Party.
Photos: D. Finnin/AMNH

Membership Department
Central Park West at 79th Street
New York, New York 10024-5192
www.amnh.org

AMERICAN MUSEUM OF NATURAL HISTORY

Please join us for the Members' Preview of

BASEBALL AS AMERICA

Friday, March 15, 5:30 p.m.–8:30 p.m.

Reservations are required.
Please call the Membership Office at (212) 769-5606.

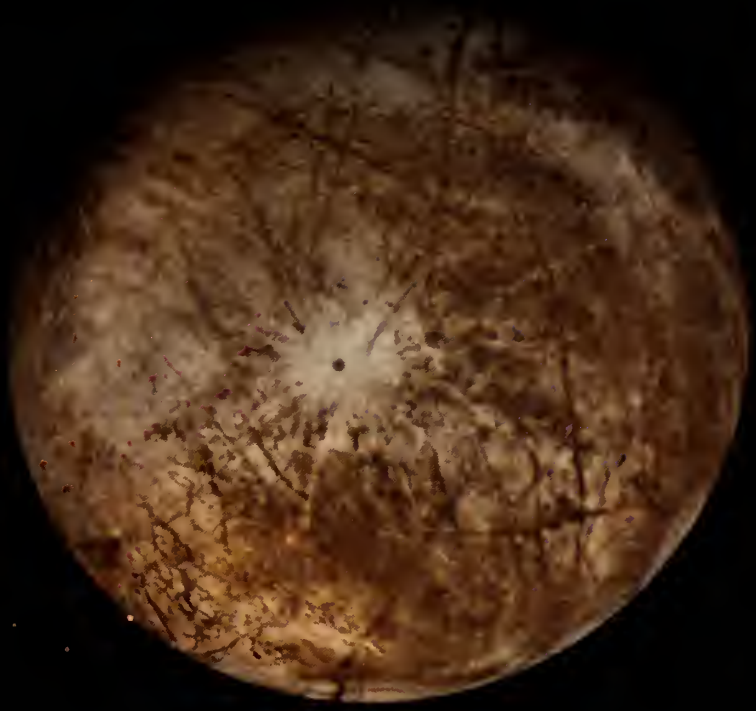
rotunda

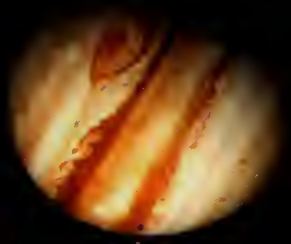
VOL. 27 NO. 3 MAY/JUNE 2002

MEMBERS' NEWSLETTER

QH70
.U52
N5
v. 27
no. 3
May 2002

The Search for Life: Are We Alone?





The New Hayden Planetarium Space Show at the Rose Center for Earth and Space

AMERICAN MUSEUM OF NATURAL HISTORY

Museum Notes

Baseball As America

Through August 18

An array of bats used by record-setting hitters Babe Ruth, Mark McGwire, Sammy Sosa, and Roger Maris
Milo Stewart © National Baseball Hall of Fame and Museum

Through an exploration of a broad range of themes including immigration, nationalism, integration, technology, and popular culture, *Baseball As America*, organized by the National Baseball Hall of Fame and Museum, celebrates America's romance with baseball and examines the enduring impact of the game on American culture.

Admission is by timed entry only. Tickets are $7.50 for Members and $4.50 for Members' children. Also check out the All-Star Baseball Challenge on the lower level. Tickets are $5.

The national tour of *Baseball As America* is sponsored by Ernst & Young.

The Butterfly Conservatory

Through May 27

This popular exhibition includes more than 500 live, free-flying tropical butterflies in an enclosed habitat that approximates their natural environment with lush vegetation and live flowering plants.

Admission is by timed entry only. Tickets are $7.50 for Members and $4.50 for Members' children.

The Butterfly Conservatory is made possible by a generous gift from Bernard and Anne Spitzer.

A young visitor befriends a butterfly.
R. Mickens/AMNH

World of Families

Through November

In commemoration of the centenary of Museum anthropologist Margaret Mead's birth, this exhibition features photographs from her 1965 book *Family*, produced with award-winning photographer Ken Heyman.

This exhibition is made possible by the generosity of the Arthur Ross Foundation.

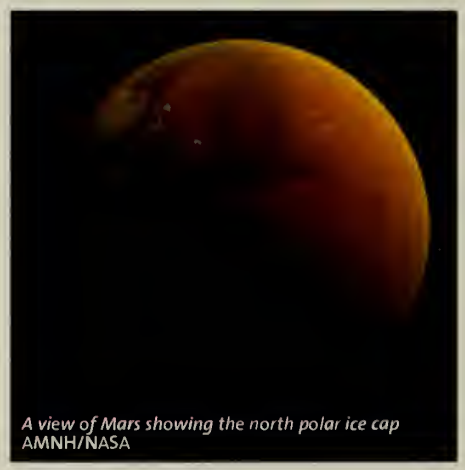
Baseball As America
Members' Private Viewings
6:00–8:00 p.m., May 7 or June 11
Please call the Membership Office at 212-769-5606 for reservations.

Space Show
The Search for Life: Are We Alone?

Narrated by Harrison Ford

The question of whether life exists beyond Earth has always captivated the public's—and science's—imagination. This new Space Show will whisk you on an incredible journey from the lightless depths of Earth's oceans to newly discovered planets on a quest for worlds that might support life.

Tickets are $9.50 for Members and $6 for Members' children.



A view of Mars showing the north polar ice cap
AMNH/NASA

Developed by the American Museum of Natural History in collaboration with the National Aeronautics and Space Administration (NASA). Written by Ann Druyan and Steve Soter. Music by Stephen Endelman.

The Search for Life: Are We Alone? is made possible through the generous support of Swiss Re.

Conference
Assembling the Tree of Life: Science, Relevance, and Challenges

Thursday–Saturday, May 30–June 1
Kaufmann and Linder Theaters, first floor

This is the first major forum in decades to synthesize our rapidly expanding knowledge of the "Tree of Life," the pattern of relationships that links all Earth's species. Leading international scientists will summarize our current understanding of life's history, and discuss the broad implications for society.

Registration is $25 for Members.

Assembling the Tree of Life: Science, Relevance, and Challenges is cosponsored by the American Museum of Natural History and Yale University. The conference is an initiative of the International Biodiversity Observation Year (IBOY) of DIVERSITAS, an international program dedicated to advancing biodiversity science and education.

Advance tickets may be purchased online at www.amnh.org or by calling **212-769-5200**. A service charge may apply.

Cover: The icy crust of Europa (right), one of the moons of Jupiter (left), may cover an ocean that could harbor life. | AMNH/NASA

Hot Dogs As America

Special promotion from Restaurant Associates

In celebration of the exhibition *Baseball As America*, Restaurant Associates offers you the opportunity to sample ten authentic ballpark-style hot dogs from across the country. Try the Chicago Red Hot, the Dodger Dog, the Cincinnati Cheese Coney, the Rochester White Hot, and introducing The Natural, the AMNH signature dog—all made from ingredients direct from regional suppliers.

During May and June 2002, Members who purchase any *Hot Dog As America* dog and a large fountain beverage will receive a complimentary Ball Park Peanuts, a $2.00 value. As always, Members receive a 15% discount on all Restaurant Associates purchases. Please show your Membership card at the beginning of your transaction.

Sharkabet: A Sea of Sharks from A to Z, by Ray Troll

New book now available in the Museum Shop
$16.95, Membership discount applies

From angel sharks to zebra sharks, take a tour through the alphabet with this cartilaginous crew! Choosing from among the thousands of living and extinct species of sharks, rays, and chimaeras, artist, writer, and fish lover Ray Troll presents 26 of them, beautifully illustrated in imaginative and whimsical settings. Among the species depicted are harmless giants, fierce predators, and midget sharks, all treated with artistic and scientific respect.

In addition to his delightful A-to-Z presentation, Troll offers a short course on sharks themselves: their family tree, extra senses, and extraordinary range of teeth types. He discusses the relative disparity between sharks' threat to humans and humans' threat to sharks, which reproduce slowly and are, therefore, easily threatened with endangerment.

Natural History readers will remember Troll's superb painting depicting the abundant fish life of the Amazon which graced the cover of the magazine's September 2001 issue. His newest venture, *Sharkabet*, is a fun and informative field guide to sharks that will be treasured by readers of all ages.

Liz Stecher

Ryan Stecher Celebrates His Birthday

Linda Kaye's Partymakers

Seven-year-old Ryan Stecher is not getting ready for a trip to the beach. Instead, he is chief paleontologist celebrating with his friends at his Dinosaur Discovery Birthday Party at the Museum. Ryan is wearing 3-D glasses that, together with our collection of 3-D art, enable him to see how dinosaurs might have lunged forward. This is just one of the fun activities that fill the children with anticipation for their tour of the fossil halls with our party leader and helpers.

Birthday parties, available as a benefit for Contributors and higher-level Museum members, are tailored for children ages four and up and can be scheduled for any day of the week. Other party themes available include Safari Adventure, Global Mysteries, and Cosmic Blast-Off. For more information or to schedule a party, see our online brochure at www.partymakers.com or call Linda Kaye's Partymakers at 212-288-7112.

rotunda

ISSN 0194-6110
Vol. 27, No. 3, May/June 2002

Lewis W. Bernard, *Chairman*
Ellen V. Futter, *President*
Lynn DeBow, *Vice President for Development and Membership*
Rosemary Caulk, *Director of Membership*

rotunda is published bimonthly, except for a combined issue in July/August/September and a single issue in December, by the Membership Office of the American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192. Phone: 212-769-5606. Web address: www.amnh.org. Museum membership of $45 per year and up includes a subscription to *rotunda*. ©2002 American Museum of Natural History. Periodical postage paid at Strasburg, VA, and at additional mailing offices. Postmaster: Please send address changes to *rotunda*, Membership Office, AMNH, at the above address. Printed in the USA.

Newly Restored LeFrak Theater Opens

This June, the American Museum of Natural History's main auditorium reopens as the Samuel J. and Ethel LeFrak Theater after an extensive renovation and restoration. Supported by a generous grant from the Samuel J. and Ethel LeFrak Charitable Foundation, the renovation, which began in September 2001, restores the theater to the full grace and distinction of its late-19th-century design. The LeFrak Theater will continue to function as the Museum's largest auditorium for scientific lectures, conferences, and meetings as well as a venue for the screening of IMAX® and other large-format films.

Rendering of new Samuel J. and Ethel LeFrak Theater
Jonathan Arnold/Arnold Imaging

History of the LeFrak Theater

In the decades after the Museum was founded, the Trustees saw the need for a large public meeting hall that would support the Museum's mission of providing public education on natural history topics. To implement their vision, the Trustees turned to Josiah Cleaveland Cady, the renowned institutional architect. Cady, along with his firm Cady, Berg and See, is also responsible for the design of the Museum's entire 77th Street Romanesque Revival wing, completed in stages during the 1890s. The new theater, with its seating capacity of more than 900, opened in 1900.

Since the theater opened, it has served as a venue for countless lectures by distinguished scientists and naturalists and has been the site for important public discourse on science. Recent key events held in the theater include *Sequencing the Human Genome: New Frontiers in Science and Technology*, in September 2000, the first public event on this topic after the completion of the draft sequence. In spring 2001, renowned chimpanzee expert Jane Goodall made a rare public appearance in the theater. One of the new LeFrak Theater's first events will be the scientific symposium, *Assembling the Tree of Life: Science, Relevance, and Challenges*, May 30–June 1, 2002. This conference is the first major scientific forum in decades to address the pattern of evolutionary relationships that links all Earth's species. In addition to many other exciting programs scheduled, the Second Annual Isaac Asimov Memorial Panel Debate, *The Search for Life in the Universe*, will take place in the new LeFrak Theater on June 10, 2002.

The Renovation

The current renovation is being done by Polshek Partnership Architects, the same firm that designed the Frederick Phineas & Sandra Priest Rose Center for Earth and Space. To support an overall goal of improving the visitor's experience, the theater's remarkable Cady design has been preserved and enhanced, and major systems overhauls have been conducted.

Detail of the renovated ceiling in the new Samuel J. and Ethel LeFrak Theater | M. Carlough/AMNH

Specific enhancements include a new entrance from the Hall of Northwest Coast Indians; new seating, lighting, and carpeting; upgraded acoustical treatments; and advanced audiovisual equipment.

Programs in the LeFrak Theater

In tribute to the Theater's distinction in presenting the highest quality science- and culture-related films, the LeFrak Theater will open with **The Best of IMAX®** film festival, from June 2 to 23, 2002. Three classic films will be shown in repertory:

- *To Fly!* (1976)
  This award-winning classic that pioneered the IMAX® format offers an aerial tour of a lifetime, from an 1880s-style balloon ascension to a flight into space.

- *Shackleton's Antarctic Adventure* (2001)
  One of the Museum's most popular offerings in recent years, this film tells the harrowing and inspiring tale of Sir Ernest Shackleton's 1914–1916 expedition to Antarctica.

- *Grand Canyon: The Hidden Secrets* (1984)
  Considered one of the most visually breathtaking IMAX® films ever, this film takes viewers on an eagle's-eye journey around this spectacular Wonder of the World.

Following the festival, beginning June 24, 2002, the LeFrak Theater will premiere *Kilimanjaro: To the Roof of Africa*. Directed by David Breashears of *Everest* fame, the film explores Mt. Kilimanjaro from an environmental point of view as six trekkers and their local guide ascend through five climate zones to the famous summit. And back by popular demand, brown bears, black bears, polar bears, and grizzlies will take up residence in the Museum for a return engagement of *Bears*.

For tickets to these films or other events in the LeFrak Theater, call 212-769-5200 or visit www.amnh.org.

Link Your Name with *A Seat for Science*

Help perpetuate the American Museum of Natural History's long tradition of research and expeditions by naming *A Seat for Science* in the Museum's Samuel J. and Ethel LeFrak Theater. Your generous contribution of $2,500 in honor or memory of a loved one will support the Museum's endowment for scientific research. For more information, call 212-769-5207.

Kid's Culinary Council Cooks!

Rosalie Isis Shaw preparing her Pancake Tel
C. Banicki

To cultivate the joy of cooking in children, the Museum's Membership Department and dining service, Restaurant Associates, have jointly developed the **Kid's Culinary Council**. Composed of Museum Members' children who delight in cooking and eating, the **Kid's Culinary Council** allows the 8–13-year-old gourmets to serve a one-year term and meet quarterly with Restaurant Associates Museum Executive Chef Frank Polchinski. Here they participate in hands-on workshops including menu development for young diners in the Museum's food outlets.

olchinski and members of the Kids Culinary Council
cki

In a contest launched in the summer of 2001, children were invited to submit a simple recipe inspired by Museum halls and exhibitions. The winners were selected by a panel of judges including Chef Polchinski, one of his sous chefs, and Museum staff members. The criteria—the creativity of the recipe, the presentation of the dish, and its relevance to the Museum—netted eight winning submissions, including:

- Amethyst Rock Candy by Elizabeth Sharpe (age 9)
- Megalosaur Meatloaf by Allen Kato (age 7)
- Core-Mantle-Crust Dessert by Timothy Z. Chang (age 10)
- Fossil Layer Pudding by Elizabeth Sarapata (age 10)
- Chocolate Genome Ganache Cake by Jeremy Fuchs (age 9)
- Dino "soy" aur Nuggets by Armand R. Gomez (age 10)
- Dino-Cookies by Ari Cohen (age 9)
- Rosalie's Pancake Tel by Rosalie Isis Shaw (age 8) (described by this budding pastry chef as a hill built up of human detritus over the ages—in this case, allowing the hungry to play archaeologist by cutting through the layers to find surprises left by the cook between the pancakes: nuts, chocolate chips, raisins, and dried and fresh chopped fruits).

Polchinski, Kids Culinary Council members, and their parents | C. Banicki

These eight aspiring gastronomes all became members of the first **Kids Culinary Council** and met at the Museum for the first time on February 3 for a tour of the Food Court's kitchen. They observed food preparation, prepared their own winning recipes, and received specially designed aprons emblazoned with the **Kids Culinary Council** logo. The day ended with a lunch buffet featuring all the winning recipes. The children went home with Chef Polchinski's email address so they could stay in touch, share menu ideas, and ask questions about recipes. The group will continue to meet several times this year.

Try one of the winning recipes!

Elizabeth Sarapata's Fossil Layer Pudding

Ingredients

(For the pudding)
1 package instant pudding mix
2 cups milk

(For the whipped cream)
1 cup heavy cream
2 tbsp sugar
1 tsp vanilla

Swedish fish

Instructions

Prepare pudding according to directions.
Add sugar and vanilla into heavy cream and beat until stiff.
Mix 2/3 cup of pudding with 1/3 cup of whipped cream. Set aside.
Mix 1/3 cup of pudding with 2/3 cup of whipped cream. Set aside.
(You now have 4 separate bowls.)
Make a layer of plain pudding on the bottom of a glass dish. Add a Swedish fish.
Make a second layer with the 2/3 pudding mixture. Add a Swedish fish.
Make a third layer with the 1/3 pudding mixture. Add a Swedish fish.
Make a whipped cream layer on top.

Enjoy!

Restaurant Associates provides food service in all the Museum's restaurants and at ***Starry Nights: Fridays under the Sphere***. It also provides catering for special events within the Museum or off premises.

Members' Programs

SPECIAL PROGRAM

Star Party

Wednesday, May 15
6:00 p.m. MM5-5A
6:30 p.m. MM5-5B
7:00 p.m. MM5-5C
7:30 p.m. MM5-5D
Rose Center for Earth and Space
$20

The Pleiades | B. and S. Fletcher

Light pollution has made observing the night sky increasingly difficult for New Yorkers. Spend an evening gazing at deep-sky objects and heavenly bodies under the guidance of staff members from the Rose Center for Earth and Space. In a small group setting, Members will learn star-hopping techniques as well as how to use a telescope, followed by the chance to put these skills to work under the planetarium's stars. Enjoy the one-on-one attention and share in the enthusiasm and wonder that comes with stargazing.

HALL TOURS

Fabulous Felines

Saturday, June 8 MM6-2A
Sunday, June 9 MM6-2B
4:00 p.m.
Free (Registration required)

Cats, big and small, play various roles in different cultures: god, family member, pet, research subject, and others. Join Museum Tour Guide Judith Freeman and explore the Museum's halls to learn about the biology of cats as well as the kinds of roles they have been assigned in Africa, Mexico, and Central America.

Biggest, Best, and Greatest

Saturday, July 20 MM7-5A
Sunday, July 21 MM7-5B
4:00 p.m.
Free (Registration required)

The Star of India, the *Tyrannosaurus rex*, and the Cape York Meteorite are just a few items in the Museum's collections that have made this one of the leading natural history museums in the world. Discover other artifacts and specimens as Museum Tour Guide Norman Rothwell leads us through the halls to examine "the biggest, the best, and the greatest."

CHILDREN'S PROGRAM

A Trip to the Tropics

Sunday, June 2 MM6-7
1:30–3:00 p.m.
Rose Center Classroom
$25

The Dzanga-Sangha rain forest diorama in the Museum's Hall of Biodiversity | D. Finnin/AMNH

Join us for an exploration of the rain forest and learn about its environment and the different species of plants and animals that inhabit it. Hands-on activities will introduce the living things that make up this diverse and colorful world. (*Ages 8–10*)

Wonderful Wetlands

Wednesday, July 3 MM7-1
1:30–3:00 p.m.
Rose Center Classroom
$25

The wetlands are home to amazing and diverse creatures. During this interactive workshop, children will discover the adaptations that have enabled plants and animals alike to flourish in this fascinating environment. (*Ages 8–10*)

The Cheetah Habitat group in the Akeley Hall of African Mammals | D. Finnin/AMNH

Please note: These programs are available to Members only.

EXPEDITIONS

Inwood Hill and the Henry Hudson Bridge

Saturday, June 8 MM6-3
10:00 a.m.–2:00 p.m.
$36

Sidney Horenstein, Coordinator of Environmental Programs, will lead a walking tour from Inwood Hill Park in Manhattan to Spuyten Duyvil in the Bronx via the little-walked Henry Hudson Bridge. Participants will visit a hidden pond, take in splendid vistas, find out how Spuyten Duyvil got its name, and see the oldest rocks in New York City.

Birds of Jamaica Bay

Wednesday, June 12 MM6-4
10:00 a.m.–2:00 p.m.
$36

Jamaica Bay Wildlife Refuge, located in New York City, is internationally renowned as a prime birding spot where water, land, and shore birds stop during migration. Join Paul Sweet, Collections Manager in the Department of Ornithology, for a birding walk and observe one of the most important urban wildlife refuges in the United States.

The Flora, Fauna, and Geology of Eastern Mountain Forests

Saturday, June 15 MM6-6
9:00 a.m.–5:00 p.m.
$70

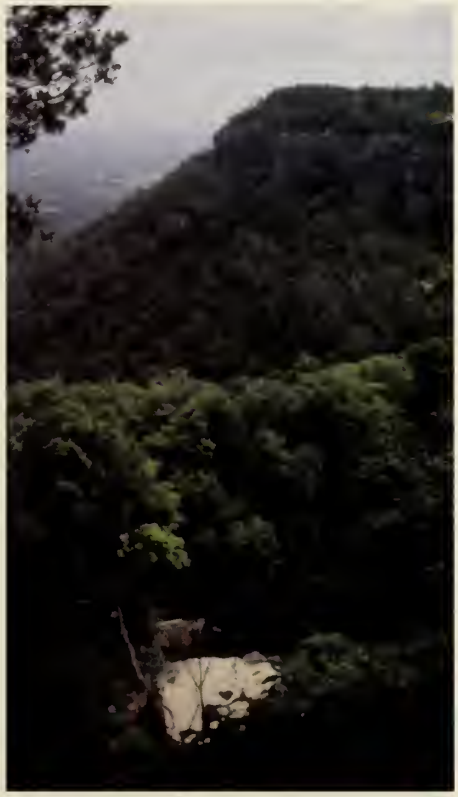
Visit two very different woodland locations in New York State with Paul C. Nascimbene, naturalist and researcher in the Division of Invertebrate Zoology, who leads this bus trip to explore the flora, fauna, and geology of John Boyd Thacher State Park and Mohonk Preserve. Thacher State Park features the Helderberg Escarpment, one of the richest fossil-bearing formations in the world, home to some unusual species. Mohonk Preserve boasts unique geological formations, old-growth hemlock groves, and tumbling mountain streams.

A great blue heron | AMNH

Roosevelt Island

Tuesday, July 9
10:00 a.m.–12:00 p.m. MM7-2A
12:30–2:30 p.m. MM7-2B
$18

Join us for a walking tour of Roosevelt Island in the East River. Sidney Horenstein, Coordinator of Environmental Programs, discusses the geological features of the island, the origin of the East River, and the history of the area. The fascinating scenery includes historic structures on the island.



Thacher State Park in summer | New York State Parks

Central Park Up Close

Saturday, July 13 MM7-4
10:00 a.m.–2:00 p.m.
$38

What makes Central Park such a brilliant landscape, rich in flora and fauna? Discover its secrets as Ingrid Sulston, Coordinator of the Pfizer Foundation Biochemistry Discovery Lab at the New York Hall of Science, leads participants in experiments designed to reveal the hidden chemistry of this New York City landmark. Materials will be provided. (*Adults and children 12 and up*)

Pennsylvania Coal Mine Tour

Wednesday, July 17 MM7-6
8:00 a.m.–6:00 p.m.
$70

Sidney Horenstein, Coordinator of Environmental Programs, leads this bus trip to investigate the anthracite-rich geology of central Pennsylvania. Learn about the history and technology of coal mining and travel through Mahanoy Mountain via the Pioneer Tunnel on a 1920s open-car steam locomotive. Following the visit to the mines, participants will have the opportunity to collect fossil plants dating back 300 million years.

For tickets, call 212-769-5200 or visit www.amnh.org. All Members' programs require advance registration.

Discovering the Universe... in Your Own Neighborhood!

The Museum announces the launch of a new Moveable Museum exhibition focusing on astronomy and astrophysics entitled *Discovering the Universe*. Made possible through the generous support of the Charles Hayden Foundation and designed to complement the Hayden Planetarium and the Frederick Phineas & Sandra Priest Rose Center for Earth and Space, this "museum on wheels" allows the Museum to take the work, tools, and methods of modern astronomers out into the neighborhoods of New York City.

Interior of the Paleontology of Dinosaurs *Moveable Museum* | D. Finnin/AMNH

While thousands of students and families visit the American Museum of Natural History each year, many more do not have the opportunity or the ability to do so on a regular basis. The Moveable Museum is a traveling outreach program that was launched in 1993 with the express mission to bring the Museum out to New York schools and communities. Since its inception, the Moveable Museum Program has grown in size and scope to become one of the most sought-after educational outreach programs in the area.

The primary mission of the Moveable Museum Program is to provide interactive, inquiry-based learning environments to both schools and community groups throughout New York City. School programs are offered to public, private, and parochial schools from September through May each year. Additionally, the Moveable Museums are popular attractions at community centers and large-scale community events throughout the New York City area.

Visitors to *Discovering the Universe* will have an opportunity to explore concepts such as light, gravity, orbits, digital image processing, and 3-D cosmic modeling— all presented in immediate and tangible ways that make them easy to grasp. Computer simulations reduce the impossibly vast scale of space and time to a scope that makes it immediately accessible. Visitors to the new Moveable will not only be engaged and stimulated; they will also leave with a formative introduction to some extremely sophisticated concepts.

Discovering the Universe has been created with the most advanced technology available, including innovative software developed exclusively for this project. Never before has it been possible to observe, visualize, and interact with simulations of cosmic phenomena in such a tangible, hands-on manner. *Discovering the Universe* is also filled with an assortment of telescopes and interactive exhibits that literally put cosmic phenomena at your fingertips.

Interior of the Structures & Culture *Moveable Museum* D. Finnin/AMNH

Rendering of the Discovering the Universe *Moveable Museum*

Rendering of the Discovering the Universe *Moveable Museum*

For example, one interactive station includes a camera that provides visual representations of infrared light, normally invisible to the human eye. The camera provides an example of the kind of telescopes astronomers use to gather light at a wide variety of wavelengths undetectable by the human eye. Other stations present interactive introductions to gravity and orbital motion as well as 2-D and 3-D imaging, enabling visitors to take a "virtual" cruise through space and to view our solar system from vantage points throughout the observable universe.

School children in the Paleontology of Dinosaurs *Moveable Museum* | D. Finnin/AMNH

Historically, astronomy and astrophysics have presented unique challenges for both scientists and educators. There is perhaps no other field of study in which such an immense distance separates the scientist from the objects being studied. This distance creates inherent difficulties for astronomers. It also creates obstacles to presenting the concepts of astronomy in an intuitive, tangible way. The *Discovering the Universe* exhibition strives to help visitors understand ***how*** we know what we know about the universe, so that they may later explore the Hayden Planetarium to discover ***what*** we know about the observable universe.

Discovering the Universe joins the following other Moveable Museums in the Museum's "fleet":

- **The Paleontology of Dinosaurs** Moveable invites visitors to do the work of paleontologists to find out how we know what we know about dinosaurs. Visitors are guided on an interactive journey from the field experience of the Gobi Desert to the paleontology laboratories of the AMNH, studying the clues that fossils can give us about the "terrible lizards" and their fate. The *Paleontology of Dinosaurs* Moveable Museum is made possible by the children and grandchildren of Irma and Paul Milstein, with additional support from The Coca-Cola Foundation.

- **The Structures & Culture** Moveable invites visitors to take part in a virtual journey to explore the traditional homes of three nomadic peoples—the Gabra of Kenya, the Mongols of Mongolia, and the Blackfeet of Montana. Like *Paleontology of Dinosaurs*, this exhibition provides visitors with an opportunity to do the work of a cultural anthropologist, exploring and studying these nomadic structures and the material culture of the people. The *Structures & Culture* Moveable Museum is made possible through the generous support of Citigroup.

Additional support for the Moveable Museum program is provided by The Barker Welfare Foundation and KeySpan Energy.

Interior of Structures & Culture *Moveable Museum* D. Finnin/AMNH

For more information about this exciting new Moveable Museum exhibition or any of the Museum's Moveable Museums, please contact Kevin Orangers, Manager of the Moveable Museum Program, at 212-769-5138.

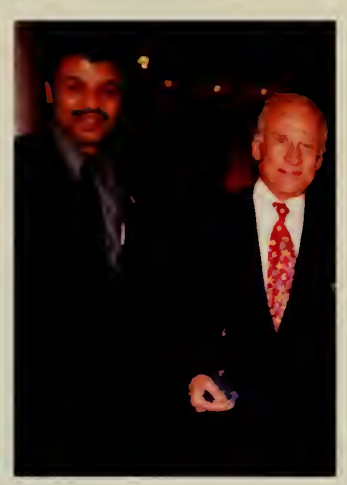
The Structures & Culture *Moveable Museum outside of the Museum* | D. Finnin/AMNH

Recent Special Events

Opening Reception for the New Space Show, February 28, 2002

The Museum celebrated the opening of the new Space Show, *The Search for Life: Are We Alone?* with a reception in the Rose Center for Earth and Space for more than 550 donors, Trustees, friends, and representatives from and guests of the show's sponsors—Swiss Re and NASA.

Ellen and Larry Grass
R. Mickens/AMNH



Neil deGrasse Tyson, Frederick P. Rose Directar af the Hayden Planetarium, and Buzz Aldrin, Apalla 11 astranaut
R. Mickens/AMNH

Museum President Ellen V. Futter, Carral Petrie, Museum Trustee Narma Hess, and Shirley Baerwald | R. Mickens/AMNH

Museum Chairman Lewis W. Bernard, Jash Weston, and Walter Anderau, Executive Baard Member af Swiss Re
R. Mickens/AMNH

Mary and Bill Vagel
R. Mickens/AMNH

Opening Reception for *Baseball As America*, March 12, 2002

The Museum hosted more than 1,000 guests at the opening reception for *Baseball As America*. Virtual reality batting cages, baseball "photo fantasy" machines, and, of course, hot dogs were all part of the evening's festivities. The distinguished guests included a number of members of the National Baseball Hall of Fame. The evening was partially underwritten by Ernst & Young, the sponsor of the national tour of the exhibition.

Museum Chairman Lewis W. Bernard and Trustee David S. Gattesman | D. Finnin/AMNH

Farmer Major League player Rusty Staub, Museum President Ellen V. Futter, and Natianal Baseball Hall af Fame member Jae Margan
R. Mickens/AMNH

Charlie Gibsan, Arlene Gibsan, and Trustee Canstance Spahn | D. Finnin/AMNH

Deryck and Va Maughan
D. Finnin/AMNH

National Baseball Hall af Fame members, standing from left ta right: Hank Aaran, Lau Brack and his wife, Jacqueline. Seated: Ernie Banks and his wife, Liz | D. Finnin/AMNH

AMNH Volunteer Supports the Museum's Future and her own Retirement

"Of course, having grown up in New York, some of my earliest and happiest childhood memories are of visits to the Museum," said Selma Wiener. Thus began a life that has been closely intertwined with science. Over the years, Ms. Wiener's professional experience in science has included working as a medical research technician and as assistant to the editor of a major medical publication.

While serving as a high school science teacher in Merrick, Long Island, she found a creative way to draw out those students who shared both her passion for science and her love of the American Museum of Natural History. She asked, "Who would like to go on a field trip to the Museum?" All hands were raised. Then she asked, "Who will go with me on Saturday?" The nine who responded had an experience that richly rewarded them for their willingness to make the trip on a weekend.

In the last few years, Ms. Wiener has demonstrated her commitment to the Museum in several important ways. She strengthened her Membership support by participating in the Patrons Circle. Joining the Museum's corps of dedicated volunteers, she became editorial assistant to the Director of the Micropaleontology Press. She also included a bequest to the Museum in her estate plan.

Most recently, she realized that a charitable gift annuity would be a great way to give the Museum a portion of her future legacy right now and, in addition, receive an annuity at an excellent rate. As she says, "I have made good friends here at the Museum and feel very much at home. The Museum has become increasingly important to me and reflects my true interests, so I decided to put my money where my mouth is."

For more information on creative ways to support the Museum's future through bequests, gift annuities, and other special gifts, please call the Planned Giving Office at 212-769-5119 or toll free at 800-453-5734.

Rotunda.
American Museum of Natural History
Received on: 04-22-02

General Information

HOURS

Museum: Daily, 10:00 a.m.–5:45 p.m.
The Rose Center remains open until 8:45 p.m. on Friday. The Museum is closed Thanksgiving and Christmas.
Space Show: Every half hour, Sunday–Thursday and Saturday, 10:30 a.m.–4:30 p.m., Friday, 10:30 a.m.–7:30 p.m.
Research Library: Tuesday–Friday, 11:00 a.m. –4:00 p.m.

ENTRANCES

During Museum hours, visitors may enter through the subway (lower level), Central Park West at 79th Street (second floor), and the Rose Center/81st Street entrances. The 77th Street and Weston Pavilion/Columbus Avenue entrances are closed until further notice.

TRANSPORTATION AND PARKING

Subway: B (weekdays) or C to 81st Street; 1 or 2 to 79th Street
Bus: M7, M10, M11, or M104 to 79th Street; M79 to Central Park West
Parking Garage: Open daily, 8:00 a.m.–11:00 p.m.; enter from West 81st Street. Members receive a discounted rate of $10 if entering after 4:00 p.m. To receive this rate, you must have your parking ticket validated at the Security Desk (first floor, Central Park West entrance). For more information, call 212-313-7278.

FOOD SERVICE

Museum Food Court: Daily, 11:00 a.m.–4:45 p.m. (*lower level*)
Café on 4: Saturday and Sunday, 11:00 a.m.–4:45 p.m (*fourth floor*)
Café 77: Saturday and Sunday, 11:00 a.m.–4:45 p.m (*first floor*)
Hours are subject to change.

MUSEUM SHOP

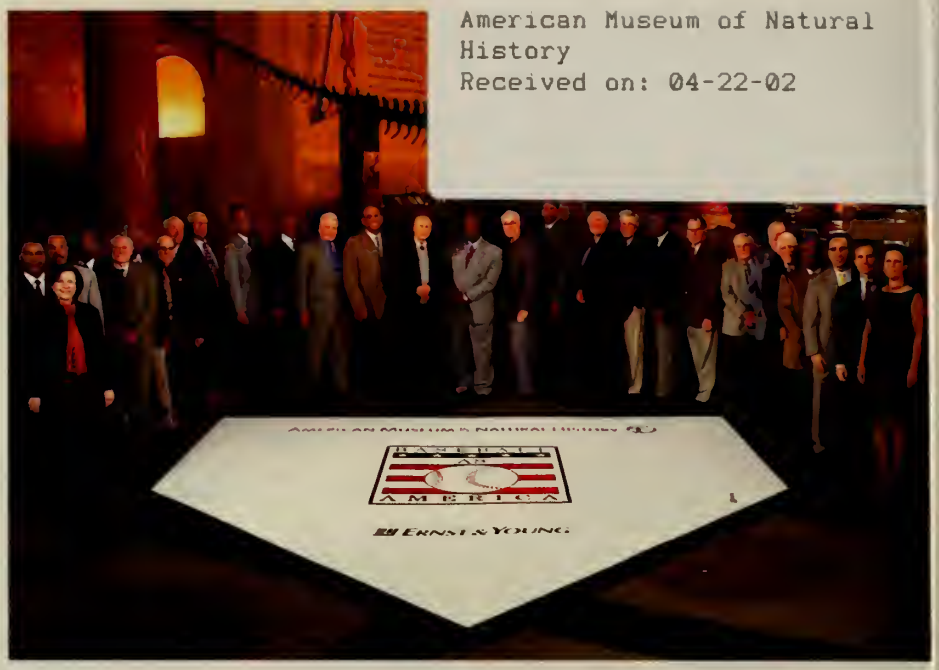
The following Museum Shops are open during regular Museum hours:
Main Shop (*first and second floors*)
Dinostore and More (*fourth floor*)
Planetarium Shop (*Rose Center, lower level*)
Satellite Shop (*Rose Center, first floor*)
Baseball Shop (*third floor*)

PHONE NUMBERS

Museum Information	212-769-5100
Membership Office	212-769-5606
Planetarium Information	212-769-5900
Member Birthday Parties	212-769-5606
Education Department	212-769-5310
Planned Giving Office	212-769-5119
Discovery Tours	212-769-5700
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
Web site	www.amnh.org

AMNH eNotes delivers the latest information on Museum programs and events to you via email. Visit www.amnh.org to sign up today!

AMERICAN MUSEUM OF NATURAL HISTORY



Museum President Ellen V. Futter, members of the National Baseball Hall of Fame, and Jane Forbes Clark, Chairman of the National Baseball Hall of Fame and Museum, at the opening of Baseball As America | AMNH Photo Studio

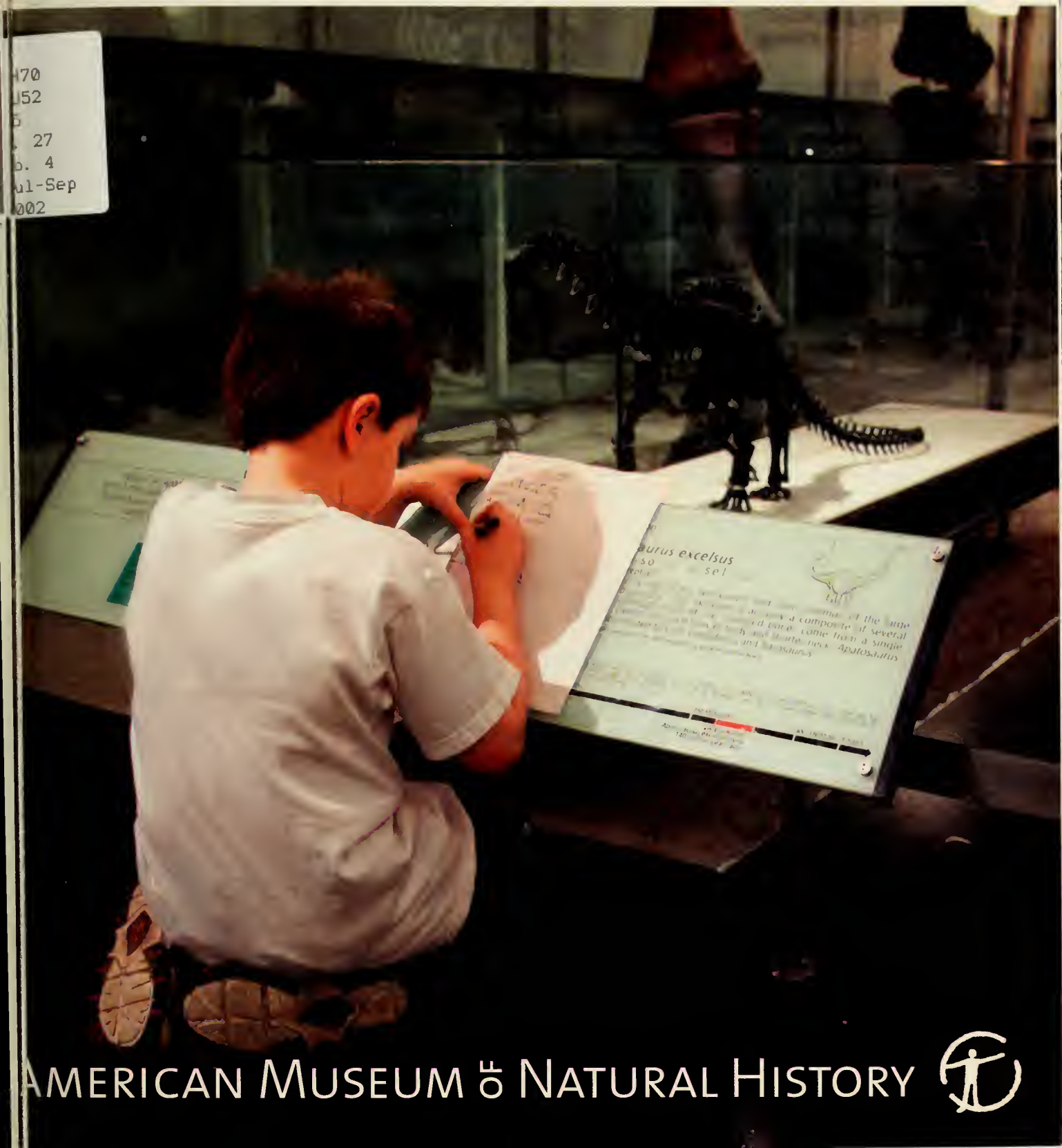
Membership Department
Central Park West at 79th Street
New York, New York 10024-5192
www.amnh.org

rotunda

VOL. 27 NO. 4 JULY/AUGUST/SEPTEMBER 2002

MEMBERS' NEWSLETTER

470
152
5
. 27
o. 4
ul-Sep
002



AMERICAN MUSEUM OF NATURAL HISTORY

Museum Notes

IMAX® Movies

Samuel J. and Ethel LeFrak Theater

Kilimanjaro: To the Roof of Africa follows a team of hikers up Mount Kilimanjaro, allowing audiences to experience the biodiversity and mysteries of Africa's tallest mountain.
Daily, 11:15 a.m., 12:45, 2:30, & 4:30 p.m.

Bears returns to the Museum, exploring the legendary past and tenuous future of these awesome land mammals.
Daily, 10:30 a.m., 12:00, 1:30, & 3:30 p.m.

Courtesy of Houston Museum of Natural Science/Photo by Ace Kvale

Baseball As America

Through August 18

Through an exploration of a broad range of themes including immigration, nationalism, integration, technology, and popular culture, *Baseball As America*, organized by the National Baseball Hall of Fame and Museum, celebrates America's romance with baseball and examines the enduring impact of the game on American culture.

Admission is by timed entry only.

The national tour of Baseball As America *is sponsored by Ernst & Young.*

All-Star Baseball Challenge

Always dreamed of playing in the big leagues? Visit the All-Star Baseball Challenge, an activity center for "players" of all ages, located near the Museum Food Court on the lower level. Features include The Bull Pen, The Rookie League Challenge, The Double Play, The Perfect Bunt, and a photo opportunity at To Be a Player.

Tickets are $5. Members receive a special $1-off discount! Tickets are available at any Ticket Sales location.

World of Families

Through November 17

In commemoration of the centenary of Museum anthropologist Margaret Mead's birth, this exhibition features photographs from her 1965 book *Family*, produced with award-winning photographer Ken Heyman.

This exhibition is made possible by the generosity of the Arthur Ross Foundation.

Ken Heyman

Space Show
The Search for Life: Are We Alone?

The question of whether life exists beyond Earth has always captivated the public's—and science's—imagination. This new Space Show, narrated by Harrison Ford, will whisk you on an incredible journey from the lightless depths of Earth's oceans to newly discovered planets on a quest for worlds that might support life.

Developed by the American Museum of Natural History in collaboration with the National Aeronautics and Space Administration (NASA). Written by Ann Druyan and Steve Soter. Music by Stephen Endelman.
The Search for Life: Are We Alone? *is made possible through the generous support of Swiss Re.*

Link Your Name with *A Seat for Science*

Help perpetuate the American Museum of Natural History's long tradition of research and expeditions by naming *A Seat for Science* in the Museum's Samuel J. and Ethel LeFrak Theater. Your generous contribution of $2,500 in honor or memory of a loved one will support the Museum's endowment for scientific research. For more information, call 212-769-5207.

Cover: A young visitor busy at work in the Museum's fossil halls. | D. Finnin/AMNH

Courtesy of the Albert Einstein Archives, The Hebrew University of Jerusalem

Einstein

Opening November 15

Albert Einstein truly changed the world, what we know about it, and how we think about it. This unprecedented exhibition will profile this extraordinary scientific genius, whose groundbreaking achievements made his name virtually synonymous with science in the public mind.

Organized by the American Museum of Natural History in collaboration with The Hebrew University of Jerusalem and the Skirball Cultural Center in Los Angeles.

The Museum extends grateful appreciation to Jack and Susan Rudin, lead benefactors of the exhibition.

Special promotion from Restaurant Associates

This summer, Restaurant Associates is pleased to offer Members a complimentary ice cream sundae of their choice (a $3.95 value) with the purchase of a regularly priced sundae at the Big Dipper Ice Cream Cafe. The Big Dipper is located on the lower level, near the Museum Food Court, and features classic ice cream parlor treats.

As always, Members receive a 15% discount on all Restaurant Associates purchases—simply present your Membership card at the start of your transaction.

Birthday Parties at AMNH

Celebrate a baseball birthday!

This party theme is sure to hit a home run with your guests...and of course, the birthday child is MVP for the day! Partymakers is now offering a trivia game party in conjunction with the exciting *Baseball As America* exhibition. Baseball-themed parties are available on weekdays through August 18 and are for children ages five and up.

In addition, Partymakers brings a winning combination of education and entertainment to the Museum with four other exciting theme parties: Dinosaur Discovery, Global Mysteries, Cosmic Blast-off, and Safari Adventure. Parties are geared for children ages four and up, and are available seven days a week.

Parties are available to Contributors and higher-level Members only. For more information or to schedule a party, visit www.partymakers.com or call Linda Kaye's Partymakers at 212-288-7112.

Birthday party invitation by Linda Kay's Partymakers

Advance tickets may be purchased online at www.amnh.org or by calling 212-769-5200. A service charge may apply.

R. Mickens/AMNH

In Memoriam

Stephen Jay Gould

1941–2002

The American Museum of Natural History mourns the death of Stephen Jay Gould, one of the most influential paleontologists and evolutionary biologists of the late 20th and early 21st centuries.

rotunda

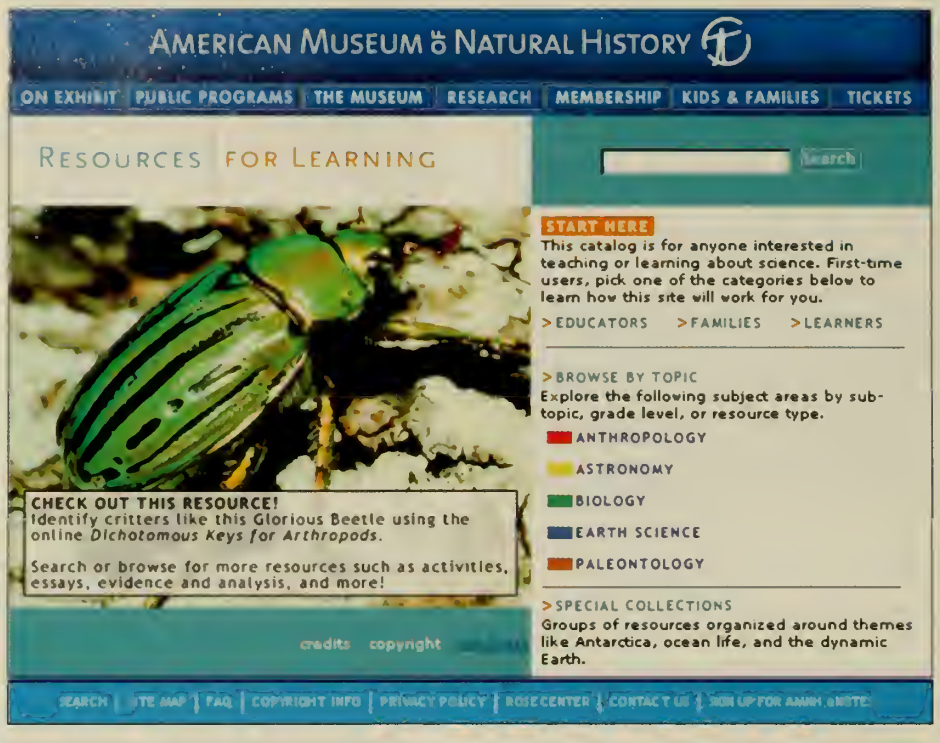
ISSN 0194-6110
Vol. 27, No. 4, July/August/September 2002

Lewis W. Bernard, *Chairman*
Ellen V. Futter, *President*
Lynn DeBow, *Vice President for Development and Membership*
Rosemary Caulk, *Director of Membership*

rotunda is published bimonthly, except for a combined issue in July/August/September and a single issue in December, by the Membership Office of the American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192. Phone: 212-769-5606. Web address: www.amnh.org. Museum membership of $45 per year and up includes a subscription to *rotunda*.

©2002 American Museum of Natural History.
Periodical postage paid at New York, NY, and at additional mailing offices. Postmaster: Please send address changes to *rotunda*, Membership Office, AMNH, at the above address. Printed in the USA.

"Learning" Your Way around the Museum



It's 8:00 p.m. on a Tuesday night and your third-grade daughter is still missing one key piece of information about butterflies for a science report due tomorrow. The computer beckons, with a dizzying number of possible destinations on the World Wide Web. Where do you go? How can you be sure the information you find is scientifically accurate or geared to your daughter's age? And aren't there any shortcuts to the information you need?

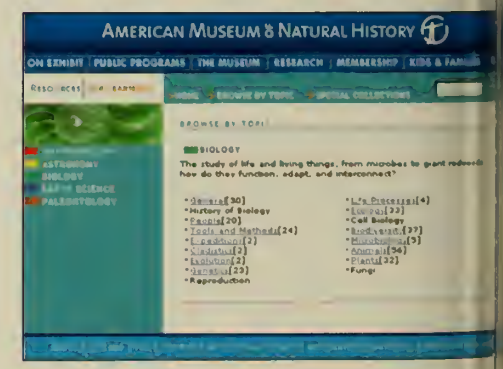
Now, you need only make one stop, the American Museum of Natural History's Web site, where Resources for Learning launched this past June. Resources for Learning is a gateway to online educational materials developed by the Museum for educators and others interested in learning about or teaching science.

Resources for Learning culls a vast array of Museum resources and organizes them so they are easily accessible by Internet users worldwide. From digital images of the anthropology collection, to online field journals written by scientists, to topical information presented in special exhibitions and video bulletins, to educational products and activities, Resources for Learning puts hundreds of individual items at your fingertips.

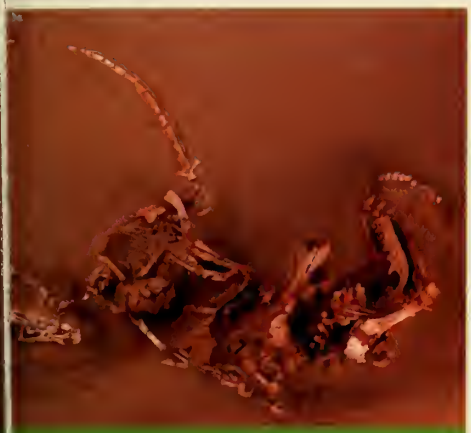
Developed by the Museum's National Center for Science Literacy, Education and Technology, Resources for Learning reflects the broad range of the Museum's scientific, exhibition, and educational activities in fields from astronomy to zoology, geared to serve "educators," as defined in the broadest possible sense—teaching professionals as well as parents and guardians, after-school program coordinators, families that home-school, librarians, and anyone curious about science and culture. To ensure ease of use, the resources are organized and searchable by topic—such as astronomy, Earth science, biology, paleontology, and anthropology—as well as by grade level and resource type—such as activity, exhibition materials, and others.

Looking for paleontology information for your second grader? Resources for Learning points you to a kid-friendly overview that explains how fossils tell stories about Earth's history, a fun, test-your-knowledge "Paleo Poll" in which kids respond to questions after examining photographs and illustrations, and a timeline that visually recreates scenes from Earth's history, from the Pleistocene epoch 19,000 years ago all the way back to the Devonian period 360 million years ago (to name just a few!).

In addition, the site offers in-depth "special collections," or enhanced packages of resources organized around topics in which the Museum has conducted extensive research and programming. Currently, these include a collection of resources that take learners out in the field to inventory biodiversity, which is the subject of a great deal of the Museum's current scientific research. Additional collections explore deep-sea vents, or "black smokers," which were the subject of a history-making Museum expedition in 1998 and are displayed



in the Gottesman Hall of Planet Earth. Resources will continue to be added as the Museum's activities in research, education, and exhibition continue, further deepening Resources for Learning and offering its users even more opportunities for enrichment.



View of the fighting dinosaur fossil | D. Finnin/AMNH

With Resources for Learning, you can snoop around in the Museum's molecular laboratories, go behind the scenes where exhibitions are designed and created, or stow away on a research expedition. In short, you can visit the places where research is happening and where science—with all its excitement and discovery—comes alive.

To check out Resources for Learning, visit www.amnh.org.

The initial development of Resources for Learning was made possible by a generous grant from The Louis Calder Foundation.

Deep-sea vent | REVEL/University of Washington

Explore Your Universe!

Give the gift of discovery with our exciting assortment of globes, scientific instruments and multimedia, guaranteed to bring out the inner explorer in all of us! Brushed steel globe: Diam. 12"; Ht. 17"; Wt. 4.35 lbs. Jupiter telescope: 50 mm lens, 2" Diam. refracting.

A Gifted Idea.

For more information, please call 212-313-7056; www.amnh.org

American Museum of Natural History

Members' Programs

LECTURES

Eye of the Albatross: Vision of Hope and Survival

Tuesday, September 24 MM9-4
7:00 p.m.
Kaufmann Theater
$10 Members; $12 Non-Members

Carl Safina's most recent book, *Eye of the Albatross*, investigates the impact of the encounters between humans and marine life over the course of history. Depicting an albatross "guide" named Amelia, Dr. Safina portrays in fascinating detail issues that affect ocean wildlife such as other seabirds, seals, sharks, and sea turtles. The result is a transforming ride to the ends of the Earth and an urgent and powerful appeal to preserve the wild oceans while there is still time.

Dr. Safina, winner of a MacArthur Fellowship and the Lannan Literary Award, is currently a visiting fellow at Yale University, vice-president for Ocean Conservation at the National Audubon Society, and founder of the Living Oceans Program there. His previous book, *Song for the Blue Ocean*, established him as a leading chronicler of marine ecology.

Carl Safina | Tui de Roy

Rosalind Franklin: Dark Lady of DNA

Tuesday, October 22 MM10-6
7:00 p.m.
Kaufmann Theater
$10 Members; $12 Non-Members

Rosalind Franklin was a British chemist whose research in the 1950s was critical to Watson and Crick's discovery of the structure of DNA. When she died at the age of 37, however, she had not been recognized for her contribution. Franklin was all but forgotten until she was portrayed as a devious character in James Watson's *Double Helix*. Brenda Maddox's latest book, *Rosalind Franklin: Dark Lady of DNA*, reveals Franklin as an intelligent, outspoken young woman whose brief life produced one of the most important findings in science.

Ms. Maddox is a biographer and journalist specializing in media issues. Her previous books include *Beyond Babel: New Directions in Communications* and *Nora: A Biography of Nora Joyce*, which won several awards. Ms. Maddox publishes on both sides of the Atlantic and is a book reviewer for the *London Observer*, the *New York Times*, and the *Washington Post*.

Please note that the following programs are available to Members only.

BEHIND-THE-SCENES TOURS

Behind the Scenes in Ornithology

Wednesday, September 18
6:30 p.m. MM9-2A
7:00 p.m. MM9-2B
7:30 p.m. MM9-2C
$25

Take advantage of a rare opportunity to view portions of the largest bird collection in the world, including some extinct species. Meet scientists from the Department of Ornithology and tour the molecular laboratory where exciting research is underway. Scientists will also discuss why collections such as the Museum's are so important for conservation efforts and scientific studies.

Behind the Scenes in the Anthropology Collection

Thursday, October 17
6:30 p.m. MM10-3A
7:00 p.m. MM10-3B
7:30 p.m. MM10-3C
$25

Assembled from around the world from the time of the Museum's founding to the present day, the anthropology collection includes more than 500,000 objects. John Hansen, Collections Manager in the Division of Anthropology, will lead a tour through state-of-the-art storage areas showing some of these magnificent objects and explaining their complex preservation requirements. Museum staff will demonstrate how the digital imaging database has provided unprecedented access to the collections, promoting new investigations and analyses by researchers around the world.

CHILDREN'S PROGRAMS

Seeking the Savannah

Wednesday, August 7 MM8-1
1:30–3:00 p.m.
Rose Center Classroom
$25

Known for its remarkable beauty, the African savannah is a complex and intricate ecosystem. Take part in this hands-on workshop and investigate what makes the savannah a truly marvelous environment. *(Ages 8–10)*

For tickets, call 212-769-5200 or visit www.amnh.org. All Members' programs require advance registration.

Rain Forest Discovery

Saturday, September 14
10:30 a.m.–12:00 noon MM9-1A
1:30–3:00 p.m. MM9-1B
Rose Center Classroom
$25

Discover the cultures of the Amazon rain forest and learn what role the environment plays in their lives. Experiment with traditional face painting and take a trip through the halls of South American Peoples and Birds of the World. Edith Gonzalez de Scollard, Supervising Museum Instructor, Department of Education, leads this workshop. *(Ages 8–12)*

Fossil trilobites, Calymene niagarensis | J. Coxe/AMNH

Fossil Excavation and Reconstruction

Saturday, October 5
10:30 a.m.–12:00 noon
(Ages 5–7) MM10-2A
1:30–3:00 p.m. (Ages 8–12) MM10-2B
Rose Center Classroom
$25

Learn to excavate and reconstruct fossils using the same techniques Museum scientists use in their own research. After excavating fragments of a fossil cast, participants fit the pieces together and prepare their specimens to take home. Pamela Popeson, educator and former Director of the Museum's Fossil Reproduction Department, leads this workshop.

Becoming Butterflies

Sunday, October 20 MM10-5
10:30 a.m.–12:00 noon
$40/pair

Celebrate the return of the *Butterfly Conservatory*—an exhibition of live, free-flying tropical butterflies—by sharing the beauty and science of butterflies with a child. The morning begins with an exploration of the exhibition. Then meet Anne Rockwell, author, and Megan Halsey, illustrator, of *Becoming Butterflies*. Conclude the morning with a butterfly craft project led by Ms. Halsey. Program fee includes admission to the exhibition, a copy of *Becoming Butterflies* signed by the author and the artist, and craft materials. *(Ages 4–6, each child with one adult)*

EXPEDITIONS

Sunset Tours: West Side, East Side

West Side: Tuesday, August 13 MM8-4A
East Side: Thursday, August 15 MM8-4B
6:00–8:00 p.m.
$36 for both, $18 each

End your day with sunset walks in Manhattan with Sidney Horenstein, Coordinator of Environmental Programs. On the west side, the walk begins in Riverside Park and heads south. As the fabulous view fades into the night, the geologic features of Manhattan and the Hudson River will be discussed. On the east side, the exploration of the East River shoreline starts at Carl Schurz Park, near Gracie Mansion, and wends north. Along the way, participants learn about Roosevelt Island and Hell Gate, the treacherous narrows at the tip of Astoria, Queens.

The Archaeology of New York City

Saturday, September 28 MM9-5
10:00 a.m.–2:00 p.m.
$36

Join archaeologist Susan Dublin on a tour of lower Manhattan. Walk back in time to pre–Revolutionary War–era New York and travel the dirt and oyster-shell paths of the raucous Dutch frontier town of Nieuw Amsterdam. Discoveries at Manhattan's tip bring to mind images of craggy hills and forested headlands and evoke the ancient lifeways of Manhattan's native peoples. The tour will visit several archaeological sites excavated during the 1970s and 1980s, including the rebuilt foundations of Lovelace Tavern, named for Francis Lovelace, the second English governor of New York (1668–1673).

Fall Migration in Prospect Park

Sunday, September 29 MM9-6
10:00 a.m.–2:00 p.m.
$36

Designed by architects Frederick Law Olmsted and Calvert Vaux, the 526-acre Prospect Park is a green oasis in Brooklyn. At least 270 bird species have been observed in the Park since records have been kept. Join Paul Sweet, Collections Manager in the Department of Ornithology, to explore the park's birding hot spots such as Lookout Hill, the Peninsula, Lullwater, Pagoda Pond, Midwood, the Vale of Cashmere, and Prospect Lake to look for migrating birds such as warblers, vireos, tanagers, and raptors.

Black Rock Forest Turtle Trip

Saturday, October 5 MM10-1
9:00 a.m.–5:00 p.m.
$70

New York's Black Rock Forest is a 3,750-acre preserve dedicated to scientific research, education, and conservation of the natural ecosystem that once covered the entire Hudson River region. Located in Cornwall, NY, in the Hudson Highlands, the forest is home to numerous wetlands and great biological diversity. Participants will visit the forest's new laboratory facility, then proceed to the forest interior, where Dave Karrmann, biologist and Senior Museum Instructor in the Department of Education, will supervise the collection, marking, recording, and release of aquatic turtles. Transportation by charter bus is included.

(continued on next page)

Embroidered shirt detail from the Paracas region of Peru | AMNH Library Special Collections

Triborough Bridge

Saturday, October 19 MM10-4
10:00 a.m.–2:00 p.m.
$36

Take a walk over the Triborough Bridge and enjoy some spectacular views of New York City. Discover the geologic and topographical features of the city and explore Randall's and Wards Islands, currently joined together by landfill. The Triborough Bridge was completed in 1936 and spans the East River, the Harlem River, and Bronx Kill while connecting Manhattan, Queens, and the Bronx. Sidney Horenstein, Coordinator of Environmental Programs, leads this walk.

FREE HALL TOURS

The Earth as a Peppercorn

Saturday, August 17 MM8-5A
Sunday, August 18 MM8-5B
2:00 p.m.
Free (Registration required)

It is difficult to comprehend the vast dimensions of our solar system. In order to help participants grasp the relative sizes and distances there, Museum Volunteers serving as "cosmic guides" will lead a 1,000-yard walk on the Museum grounds. On a "model" of this scale, Earth is the size of a peppercorn. Join this journey of discovery and travel through our solar system and beyond.

The Two Faces of South America

Saturday, September 21 MM9-3A
Sunday, September 22 MM9-3B
4:00 p.m.
Free (Registration required)

Explore the cultural differences between the Andean and the Amazonian civilizations on this tour through the Hall of South American Peoples. Magnificent examples of Andean textiles will be highlighted, as will the advanced metallurgy and stonework of the Inkas. Museum Tour Guide Marjorie Kagan leads this tour.

PREVIOUSLY LISTED

Roosevelt Island

Tuesday, July 9
10:00 a.m.–12:00 p.m. MM7-2A
12:30–2:30 p.m. MM7-2B
$18

Join us for a walking tour of Roosevelt Island in the East River. Sidney Horenstein, Coordinator of Environmental Programs, discusses the geological features of the island, the origin of the East River, and the history of the area. The fascinating scenery includes historic structures on the island.

Central Park Up Close

Saturday, July 13 MM7-4
10:00 a.m.–2:00 p.m.
$38

What makes Central Park such a brilliant landscape, rich in flora and fauna? Discover its secrets as Ingrid Sulston, Coordinator of the Pfizer Foundation Biochemistry Discovery Lab at the New York Hall of Science, leads participants in experiments designed to reveal the hidden chemistry of this New York City landmark. Materials will be provided. *(Adults and children 12 and up)*

JOIN THE JUNIOR COUNCIL!

The Junior Council is a Museum membership group for philanthropic New Yorkers, 22 to 40 years old. Members enjoy specially arranged events that offer them an intimate view of the Museum's collections, activities, and exhibitions. Junior Council events are a great way to meet people with similar interests while previewing the latest, most talked-about exhibitions and going behind-the-scenes at one of the world's greatest museums.

Enrollment begins in August for a year-long program of activities, which kicks off each September. For more information, please contact Stephanie Siegel at 212-769-5932 or sjsiegel@amnh.org, or visit our Web site at www.amnh.org/join/junior_council.

R. Mickens/AMNH

Confessions of a Master Composter

by Fiona Brady

F. Brady/AMNH

On five Tuesday nights this spring, 18 individuals (myself among them) gathered at the Museum to begin training in Manhattan's first-ever Master Composter course. Our varied group included a special-education teacher, a restaurateur, an accountant, a casting agent, a waste-management professional, and several weekend gardeners (and an age range that spanned 40 years). Our goal: to learn all we could about transforming everyday waste into a valuable (and largely overlooked) resource, and to explore how to disseminate that knowledge as widely as possible.

F. Brady/AMNH

Cosponsored by the Museum's Center for Biodiversity and Conservation, the Manhattan Compost Project was developed by the Bronx-based New York Botanical Garden (NYBG) and the New York City Department of Sanitation. Situated in the only borough without a botanical garden, the Museum was a most fitting venue in which to immerse ourselves in the minutiae of compost—soil types, aerobic (optimal) versus anaerobic (smelly) decomposition, carbon to nitrogen ratios, bin construction, and the landfill life of guacamole (at least 35 years, according to one study). Weekend field trips took us to NYBG's various composting sites for some hands-on experience; to the impressive, large-scale composting facility at Riker's Island; and to a local Materials Recycling Facility (MRF) in Queens, where all of Manhattan's collected recyclables go for sorting and distribution.

Over a period of five weeks, we learned a tremendous amount about, well, garbage and the exorbitant price we pay (financially) to throw things away. We learned that composting is a practical and simple way to reduce the quantity of waste that we produce.

The average New York City household throws away two pounds of organic material each day—that's more than a million tons each year...enough to fill a Yankee Stadium–sized Tupperware® container at least once a day. (Add to that the non-compostable/non-recyclable trash that residents and businesses toss out and you could fill it three times a day.)

If we were to remove the heaviest component from our trash pick up, which happens to be the organic material perfect for composting—if *everybody* did—we could significantly reduce both removal costs and the mass of garbage that is placed in landfills or incinerated each year. (Equally positive byproducts would include a reduction of fuel consumed and pollution emitted by transfer vehicles.)

While it's true that organic waste will biodegrade naturally over time, the question is "how *much* time?" Archaeologists who excavate modern landfills, so-called "garbologists," have uncovered decades-old meat, vegetables, leaves—all still clearly recognizable—as well as piles of ancient newspapers that help to date the material. Composting speeds up the decomposition process, and does it without the smells, seepage, pests, and harmful gasses inherent in landfills.

HOW TO COMPOST

Composting, even in an urban setting, is pretty straightforward, once you know the basics. You can use a variety of receptacles, from a small, apartment-friendly worm bin (they're great...*really!*), to a barrel-sized composter suitable for a building's roof or parking area, to a multi-sectioned holding unit positioned in a corner of the local community garden. For both those preferring a low-maintenance set up or industrious folk who like to turn their compost daily, the result will (eventually) be the same...dark, rich, wonderfully earthy smelling compost.

- You can find out how to buy or build your own bin through the City's botanical gardens, at some nurseries and gardening centers, or via mail order (see resources).
- When preparing food at home, toss compostable scraps into a sealable container.
- When it fills up, freeze the contents over night (to kill any fruit-fly larvae).
- After defrosting, toss the contents into the compost bin, mix it up to keep oxygen flowing through, and cover it with a handful of dry leaves or shredded newspaper.

(continued on next page)

- If using a worm bin, just bury the scraps and walk away. (Note to the squeamish: red wigglers, the workhorses of your worm bin, shun the light and forage underground, so you needn't even gaze upon them in your weekly composting routine.)
- *One caveat:* To avoid bad smells and the risk of attracting pests, don't add meats, fish, dairy products, or fats to your compost bin.
- As the finished compost becomes harvestable, it can be used as a top dressing for curbside gardens; placed around trees; added to potted plants; steeped as a tea to spray on roses, lilacs, and tomatoes during their growing season; worked onto lawns to improve soil structure; or donated to local parks or gardens.

For interested individuals who aren't ready for a bin of their own, kitchen and yard scraps may be welcome at local community gardens and farmers' markets. (The "Worm Lady" at Union Square's market accepts compostables four days a week.)

Here are a few resources for more detailed information on how to get started:

The New York City Compost Project
http://www.nyccompost.org/resources/index.html

The New York Botanical Garden Compost Project
http://www.nybg.org/compost/index.html

The Center for Biodiversity and Conservation
http://research.amnh.org/biodiversity/

F. Brady/AMNH

Worms Eat My Garbage, by Mary Appelhof. Kalamazoo, MI: Flower Press. 1982. ISBN 0-942256-03-4

Let It Rot!, by Stu Campbell. Pownal, VT: Storey Communications, Inc. 1990. ISBN 0-88266-635-5

CELEBRATING 50 YEARS
OF EXPLORING THE WORLD

EXPEDITIONS THROUGHOUT THE WORLD WITH DISTINGUISHED SCIENTISTS AND EDUCATORS

DISCOVERY TOURS

Call Now for a 2003 Program Preview
Featuring the New AMNH Signature Series

Call: 800-462-8687 or 212-769-5700 **Visit:** www.discoverytours.org **Mention:** RT Preview

Members' Open House

The annual Members' Open House for Contributor and higher-level members was held on the evening of March 21, 2002. Scientists from the Museum's five science divisions were available to meet Members, discuss their work, and describe the collections. Members also had the chance to visit the special exhibition *Baseball As America* and enjoy the new Space Show.

Museum Members enjoying the Baseball As America *exhibition* | D. Finnin/AMNH

Collections Manager in the Division of Vertebrate Zoology Darrin Lunde educates Members about North American Mammals| D. Finnin/AMNH

John Hansen takes Members behind the scenes in the anthropology collections | D. Finnin/AMNH

Chris Collins, Director of Collections and Conservation in the Division of Paleontology, instructs Members in the preservation of fossils | D. Finnin/AMNH

Hessy Taft, Museum volunteer, discusses analytical techniques for minerals and meteorites with Members in the Cullman Hall of the Universe | D. Finnin/AMNH

Help Us Surround the Whale with Beautiful Ocean Friends!

Be a part of the exciting restoration of the Paul and Irma Milstein Hall of Ocean Life.

In January 2002, thanks to a generous gift from Irma and Paul Milstein, the beloved Hall of Ocean Life closed for a major renovation. Through cutting-edge scientific research and exhibition technology, the Milstein Hall of Ocean Life is being transformed into an immersive marine environment that will educate visitors of all ages about the ocean's vital role in the life of our planet.

A very important part of the rejuvenation of this spectacular hall is the restoration of 14 historic dioramas and the creation of eight new marine ecosystem niches on the mezzanine level. You can help to bring these windows into the wide range of marine habitats and their inhabitants to the children and adults of New York City and the world.

Individuals, corporations, and foundations who help support these educational masterpieces will link their names forever with this beautiful hall and the American Museum of Natural History.

Please call Sarah Young at 212-769-5207 for more information.

General Information

HOURS

Museum: Daily, 10:00 a.m.–5:45 p.m.
The Rose Center remains open until 8:45 p.m. on Friday. The Museum is closed Thanksgiving and Christmas.
Space Show: Every half hour, Sunday–Thursday and Saturday, 10:30 a.m.–4:30 p.m., Friday, 10:30 a.m.–7:30 p.m.
Research Library: Tuesday–Friday, 11:00 a.m. –4:00 p.m.
Hours are subject to change.

ENTRANCES

During Museum hours, visitors may enter through the subway (lower level), Central Park West at 79th Street (second floor), and the Rose Center/81st Street entrances. The 77th Street and Weston Pavilion/Columbus Avenue entrances are closed until further notice.

TRANSPORTATION AND PARKING

Subway: B (weekdays) or C to 81st Street; 1 or 2 to 79th Street
Bus: M7, M10, M11, or M104 to 79th Street; M79 to Central Park West
Parking Garage: Open daily, 8:00 a.m.–11:00 p.m.; enter from West 81st Street. Members receive a discounted rate of $10 if entering after 4:00 p.m. To receive this rate, you must have your parking ticket validated at the Security Desk (first floor, Central Park West entrance). For more information, call 212-313-7278.

FOOD SERVICE

Museum Food Court: Daily, 11:00 a.m.–4:45 p.m. (*lower level*)
Café on 4: Saturday and Sunday, 11:00 a.m.–4:45 p.m (*fourth floor*)
Café 77: Saturday and Sunday, 11:00 a.m.–4:45 p.m (*first floor*)
Hours are subject to change.

MUSEUM SHOP

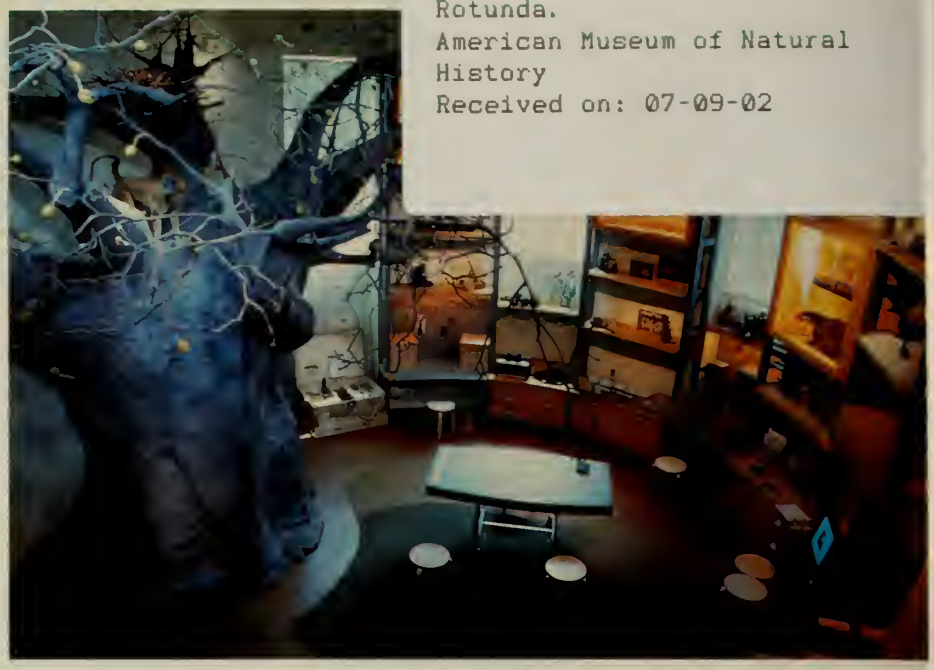
The following Museum Shops are open during regular Museum hours:
Main Shop (*first and second floors*)
Dinostore and More (*fourth floor*)
Planetarium Shop (*Rose Center, lower level*)
Satellite Shop (*Rose Center, first floor*)
Baseball Shop (*third floor*)

PHONE NUMBERS

Museum Information	212-769-5100
Membership Office	212-769-5606
Planetarium Information	212-769-5900
Member Birthday Parties	212-769-5606
Education Department	212-769-5310
Planned Giving Office	212-769-5119
Discovery Tours	212-769-5700
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
Web site	www.amnh.org

AMNH eNotes delivers the latest information on Museum programs and events to you via email. Visit www.amnh.org to sign up today!

AMERICAN MUSEUM OF NATURAL HISTORY



Rotunda.
American Museum of Natural History
Received on: 07-09-02

Overview of the Biodiversity section of the Discovery Room. A highlight of this section is a majestic two-story replica of an African baobab tree | J. Beckett/AMNH

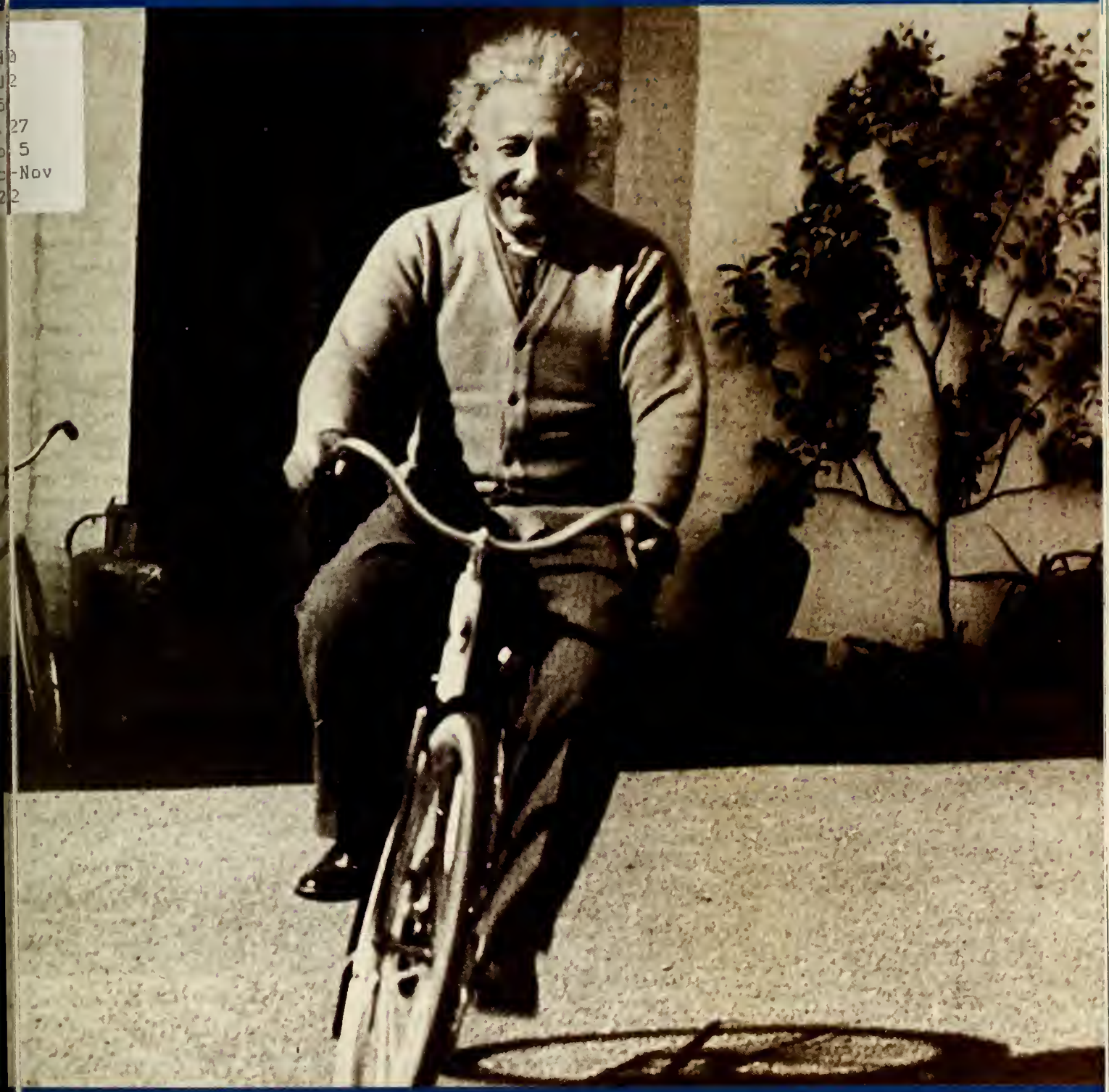
Membership Department
Central Park West at 79th Street
New York, New York 10024-5192
www.amnh.org

rotunda

OL. 27 NO. 5 OCTOBER/NOVEMBER 2002

MEMBERS' NEWSLETTER

27
5
-Nov
2



AMERICAN MUSEUM OF NATURAL HISTORY

Museum Notes

Scene from Bears

The Butterfly Conservatory: Tropical Butterflies Alive in Winter

October 5, 2002–May 26, 2003

Butterflies returns to the American Museum of Natural History! The exhibition features a rainbow of hundreds of live butterflies flying freely inside a tropical vivarium filled with lush foliage and blooming plants.

The Butterfly Conservatory *is made possible through the generous support of Bernard and Anne Spitzer and Con Edison.*

World of Families

Through November 17

In commemoration of the centenary of Museum anthropologist Margaret Mead's birth, this exhibition features photographs from her 1965 book *Family*, produced with award-winning photographer Ken Heyman.

This exhibition is made possible by the generosity of the Arthur Ross Foundation.

Space Show
The Search for Life: Are We Alone?

The question of whether life exists beyond Earth has always captivated the public's—and science's—imagination. This new Space Show, narrated by Harrison Ford, will whisk you on an incredible journey from the lightless depths of Earth's oceans to newly discovered planets on a quest for worlds that might support life.

Developed by the American Museum of Natural History in collaboration with the National Aeronautics and Space Administration (NASA). Written by Ann Druyan and Steve Soter. Music by Stephen Endelman.
The Search for Life: Are We Alone? *is made possible through the generous support of Swiss Re.*

IMAX® Movies

Samuel J. and Ethel LeFrak Theater

Premiering October 19
Pulse: A Stomp Odyssey is a rhythmic voyage of discovery around the world of percussion and movement.

Kilimanjaro: To the Roof of Africa follows a team of hikers up Mount Kilimanjaro.

Bears (through October 18) explores the legendary past and tenuous future of these awesome land mammals.

Call 212-769-5100 for show times.

An Evening with Oliver Sacks

Tuesday, October 8
LeFrak Theater
7:00 p.m.

Neurologist and writer Oliver Sacks discusses his recently published memoir, *Uncle Tungsten: Memories of a Chemical Boyhood*, in which he recounts growing up in World War II London and his early passion for science and the natural world.
The evening will also feature a slide presentation of some of Sacks's favorite objects from the Museum's halls, which have served as inspiration for his writings. A book signing follows the lecture.

Friends of Fishes and Black Rock Forest present:

What Is Happening to Our Forests?

Tuesday, October 15
Kaufmann Theater
6:00 p.m.
Free (R.S.V.P. by October 4 to blackroc @ldeo.columbia.edu or 845-534-4517)

Forests change over time in response to many influences, including human activity. These changes can have consequences for the atmosphere,

Oliver Sacks | C. Chesek/AMNH

Advance tickets may be purchased online at www.amnh.org or by calling 212-769-5200. A service charge may apply.

Cover: Courtesy of the Albert Einstein Archives, The Hebrew University of Jerusalem

Black Rock Forest | W. Schuster

water supplies, and regional biodiversity. William Schuster, Executive Director of the Black Rock Forest Consortium in Cornwall, New York, will discuss past, present, and future changes in the deciduous forests of the eastern United States with particular emphasis on those in the New York region.

The evening will include the presentation of the Friends of Fishes Turning Point Award to New York City Parks Commissioner Adrian Benepe. This award is given to outstanding individuals who have, by their thoughts or deeds, changed the way humankind thinks and behaves.

Members' Family Holiday Party

Saturday, December 7 MP120702
12:30–4:00 p.m.
School lunchrooms, lower level
Free for Family and higher-level members

Join us at the Museum for holiday activities and live entertainment! Children will sing along with award-winning folk trio Dave Grover and the Big Bear Band as they perform Chanukah and Christmas songs.

Free and open to Family and higher-level Members only. Members must register in advance by calling 212-769-5200.

Special promotion from Restaurant Associates

This fall Members can enjoy a complimentary Krispy Kreme doughnut of their choice (a $1.00 value), with the purchase of the season's most refreshing drink, fresh apple cider (12 ounces for $2.95). Doughnut choices include glazed, chocolate glazed, or raspberry filled. Also, look out for other seasonal favorites throughout the fall. As always, Members receive a 15% discount at the Museum Food Court, Café on 4, Café 77, and the Big Dipper Café on the lower level. To obtain the discount, simply present your Membership card at the start of your transaction.

Celebrate With a DINOSAUR BIRTHDAY PARTY

By Linda Kaye's Partymakers

Two hundred million years ago dinosaurs ruled the earth, only to disappear and leave nothing but fossils and bones behind. As Expert Paleontologist, the birthday child will wear 3-D glasses that, together with our collection of 3-D art, enable him or her to see how dinosaurs might have lunged forward. This is just one of the fun activities that fill the children with anticipation for their tour of the fossil halls with our party leader and helpers.

Birthday parties, available as a benefit for Contributors and higher-level Museum Members, are tailored for children ages four and up and can be scheduled for any day of the week. Other theme parties available include *Safari Adventure, Global Mysteries*, and *Cosmic Blast-Off*. For more information or to schedule a party, see our online brochure at www.partymakers.com or call Linda Kaye's Partymakers at 212-288-7112.

JOIN THE SEVENTH ANNUAL HALLOWEEN CELEBRATION

Thursday, October 31
4:00–7:00 p.m.

The American Museum of Natural History continues its tradition of welcoming children to celebrate Halloween in the fascinating and fun halls of the Museum. Kids and families will enjoy trick-or-treating, arts and crafts, cartoon characters, and live performances.

For tickets, call 212-769-5200 after October 1.

rotunda

ISSN 0194-6110
Vol. 27, No. 5, October/November 2002

Lewis W. Bernard, *Choirman*
Ellen V. Futter, *President*
Lynn DeBow, *Vice President for Development and Membership*
Rosemary Caulk, *Director of Membership*

rotunda is published bimonthly, except for a combined issue in July/August/September and a single issue in December, by the Membership Office of the American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192. Phone: 212-769-5606. Web address: www.amnh.org. Museum membership of $45 per year and up includes a subscription to *rotunda*. ©2002 American Museum of Natural History. Periodical postage paid at New York, NY, and at additional mailing offices. Postmaster: Please send address changes to *rotundo*, Membership Office, AMNH, at the above address. Printed in the USA.

Einstein Revealed

THE EXHIBITION

It's 1905. Ty Cobb joins the Detroit Tigers as a rookie. W. E. B. Dubois and others meet at Niagara Falls and lay the foundation for what will become the NAACP. Eleanor and Franklin Delano Roosevelt are married, despite his mother's objections. And in the Swiss Patent Office in Bern, a 26-year-old is quietly at work in his spare time on some radical scientific theories that will turn the world upside down.

The young man was Albert Einstein, and in that one year, 1905, he proved the existence and sizes of molecules, explained light as both particles and waves, and created the Special Theory of Relativity, part of which linked matter and energy in the now-famous equation, $E=mc^2$.

On November 15, 2002, nearly a century after that miraculous year, Einstein's *annus mirabilis*, the American Museum of Natural History will open an unprecedented exhibition about Einstein's life and work. The exhibition, titled simply *Einstein*, is organized by the American Museum of Natural History, The Hebrew University of Jerusalem, and the Skirball Cultural Center in Los Angeles. American audiences will have the chance to see, for the first time ever, a selection of scientific manuscripts, original letters, and other documents from the Albert Einstein Archives at The Hebrew University, most of which have neither traveled outside of Israel since the Archive was assembled nor been exhibited to the public.

"Albert Einstein has been called by many the most important figure of the 20th century. In fact, because of the profound nature of his insights into the universe and his compelling personality, he is a man for all ages," said Ellen V. Futter, President of the American Museum of Natural History. "We hope that *Einstein* will not only educate visitors about this seminal figure, but also inspire them to seek answers to the most crucial scientific challenges of the new millennium."

The exhibition will bring to life many of Einstein's most astonishing visions of the universe—light's duality as both particle and wave, time as the fourth dimension, and space-time as a curved geometry—while at the same time revealing his passion for social justice and his opposition to segregation, anti-Semitism, McCarthyism, and nuclear armament.

"Visitors will come away with a broader understanding of Einstein, and many people, perhaps for the first time, will understand how his theories explain a variety of phenomena, from the behavior of black holes to the fusion reactions at the heart of our Sun," said Michael M. Shara, Curator and Curator-in-Charge of Astrophysics in the Museum's Division of Physical Sciences, and the lead curator of *Einstein*. "His discoveries also made possible a number of technological innovations, including nuclear energy, lasers, and computer circuitry."

Einstein will focus on the following themes:

Einstein and His Theories

The exhibition will focus on four major topics: light, time, energy, and gravity. With dramatic eye-opening exhibits, ranging from interactive computer animations to 3-D models, visitors will follow Einstein as he recognizes the speed of light as a universal constant, discovers that space and time are relative and not absolute, realizes that energy and mass are intimately related, and, most amazing of all, reconsiders gravity as a warping of space-time instead of a simple force as described by Newton. Original handwritten pages from a 1916 version of his General Theory of Relativity will be on public display for the first time in the United States.

Einstein in Peace and War

This section focuses on Einstein as a complex political figure: an émigré to the United States before the start of World War II, a dedicated Zionist, one of the founders of The Hebrew University who nonetheless stressed the need for cooperation between Jews and Arabs, and a lifelong pacifist who wrote a letter to President Roosevelt in 1939 warning him that nuclear chain reactions and bombs were possible, and that the Nazis might be building a nuclear bomb. Einstein's original letter and FDR's reply to him will be displayed side-by-side for the first time.

Einstein's Legacy

In the last decades of his life, Einstein searched for a "theory of everything," a single principle underpinning the entire universe and describing all

Courtesy of the Albert Einstein Archives,
The Hebrew University of Jerusalem

physical phenomena from the smallest atomic particle to the largest galaxy. This "unified field theory" eluded him, although physicists today continue his quest. On display for the first time in the United States will be Einstein's writing pad containing his final calculations in pursuit of a unified theory, on which he was working before his death in 1955.

The Personal Life of Albert Einstein

Integrated throughout the exhibition will be the story of Einstein's often chaotic and passionate personal life. On display will be an original love letter from Einstein to his first wife; family photos; a diary; and correspondence with his two sons. Several of Einstein's personal artifacts, never before seen in New York, will be displayed, including his 1921 Nobel Prize medal and Certificate for Physics, a report card from his Swiss high school showing excellent grades in physics and algebra, and his magnetic compass, similar to the one he saw as a child which first sparked his life-long fascination with the mysterious and sometimes counterintuitive forces of nature.

The exhibition will travel nationally to multiple venues once it closes at the American Museum of Natural History on August 10, 2003. Its only West Coast showing will be at the Skirball Cultural Center, where it will open in September 2004, inaugurating the Skirball's new building for expanded exhibitions. It will then travel to The Hebrew University, Jerusalem, permanent home of the Albert Einstein Archives, for an extended run.

Einstein *is made possible through the generous support of Lead Benefactors Jack and Susan Rudin and the Skirball Foundation, and of the Corporate Tour Sponsor, TIAA-CREF.*

THOUGHTS FROM CURATOR MICHAEL SHARA

What challenges do we face in presenting Einstein to the public?

The exhibition itself is really in two major parts. There certainly is Einstein's physics. We want to explain General Relativity, Special Relativity—the core of the great contributions that he made to physics. Of course, that's a challenge.

The other part of the exhibition is Einstein the man. There is this funny notion of him as an iconic, long-white-haired genius whose theories were incomprehensible to the public, who was a lousy student as a kid, who is the father of the atomic bomb, and who lived in an ivory tower all of his life. And that's at least as untrue as many of the misconceptions about his physics.

In particular, he was highly engaged in the politics and social issues of the day. He had many ties with many famous people around the world and he used his influence where he could for things that were really very good. There are many facets of his life that I think are hardly known by the public and it's our challenge to make people aware of all of this.

Time *magazine chose Einstein as "Person of the Century." Do you agree with that assessment?*

Absolutely. To my mind it was a no-brainer. I would have been very disappointed had they chosen anyone else. The fact of the matter is that, yes, he was the most influential scientist of the century, probably of all time.

Take a look at the Earth in 1900 and the Earth in 2000. There were more changes in that century than in the previous 2,000 years in terms of technological advances, expansion of our ability to travel and to communicate across vast distances,

Michael M. Shara | D. Finnin/AMNH

the computer revolution, our increased understanding of the universe, and practically every one of those is traceable back to Einstein, including the biological revolution. We are a different race of people than we were a century ago, utterly and completely different, because of Einstein.

Can you share your thoughts about a unified "theory of everything," which seems like a Holy Grail?

It certainly is. Einstein believed in his heart that there must be a simple, beautiful—and beautiful is a technical term, in some sense, in physics—a beautiful theory that explains everything, from which all the complexity of the universe can be derived. And he failed. He did not succeed. He spent the last thirty or thirty-five years of his life in pursuit of this Holy Grail, and he absolutely did not succeed.

Since his death, the theories of the strong nuclear force, the weak nuclear force, and electromagnetism have been unified into a single theory. And that's a tremendous accomplishment,

(continued on next page)

AMNH Library Services

which has won several Nobel Prizes for the people who did it. The grandfather of this, or I should say the godfather of all of this, is Einstein. It was Einstein's vision that there must be a unified theory that led to the creation of this partially unified theory.

But nobody has yet succeeded in unifying these theories with gravity. Now there must be a super-theory, something above quantum theory and gravitational theory and electromagnetism and the strong and weak nuclear forces which will succeed in unifying them all, but nobody's there yet.

How did Einstein come to be such a celebrity? How much of it was due to his personality?

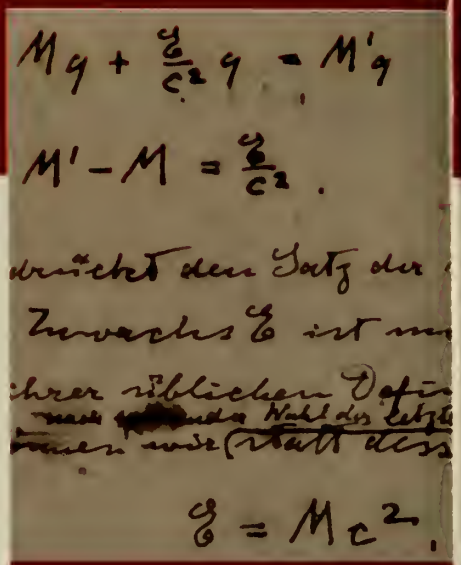
Once General Relativity had been demonstrated in 1919, he became as well known throughout the world as Madonna is today. He was one of the pop stars of the world—he was *the* pop star of the world at the time. That continued up until his death and, even a half-century later, he remains this almost religious, iconic figure.

His public persona was largely humble. He certainly never put on airs. He was truly disinterested in money. It was utterly irrelevant as far as he was concerned. The search for knowledge, the search for a fundamental understanding of the universe is what drove him. That was, his raison d'être. That having been said, he spent a significant fraction of the second half of his life in the public eye doing very public things. And he was willing to use his celebrity status to advance causes that he felt were important.

In your opinion, what's the most exciting object in the show?

We're going to have several original $E=mc^2$'s in his own handwriting. I held some of them in my own hands, in my own gloved hands, you're not allowed to touch them of course for conservation purposes. So those to me are extraordinary. We're going to have a 72-page original manuscript describing all of Special Relativity. We will have letters to and from his wives, children, mistresses. And we'll have the offer of the Presidency of the State of Israel from David Ben-Gurion as well as Einstein's letter graciously but regretfully declining that offer.

The collection of objects is going to be truly extraordinary. Nothing like this has ever been on exhibit anywhere before, anywhere in the world.



Detail of manuscript for a popular article on Special Relativity | Courtesy of the Albert Einstein Archives, The Hebrew University of Jerusalem

What two or three ideas do you hope people will take away from the show?

That Einstein was an extraordinary human being as well as the most extraordinary scientist of all time. That he changed the world forever in very very positive ways. And that we can all learn a lot by emulating both his character for non-scientists and, frankly, his scientific ethic, his hard work, his diligence, his view of the whole picture, and his quest for truth as a scientist.

The American Museum of Natural History invites you to

Walk on the Wild Side

***Exercise** your body,*

***Educate** your mind,*

***Explore** the world,*

***Escape** the cold,*

***Power-walk** to the farthest corners of the Earth...*

with an intrepid band of early-morning movers and shakers. Join this Wednesday morning fitness walk through the Museum for Members at the Contributor level ($125) and above.

13 Wednesdays, December 4, 2002, to March 19, 2003, 8:00–9:30 a.m.

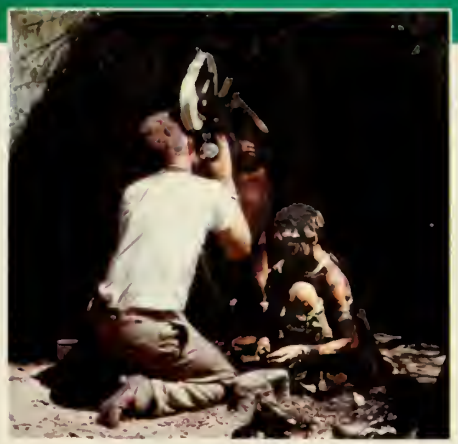
December 4th kick-off, participants are invited to bring guests!

Space is limited, so register early by calling Autumn Payne at 212-313-7607.

Mead Festival Celebrates its 26th Year

Now in its 26th year, the Margaret Mead Film & Video Festival serves up the best in world cinema from the ethnographic to the experimental and everything in between. The programs include discussions and roundtables with filmmakers, producers, and specialists.

This year, the Festival showcases a number of world, United States, and New York premieres, which are as compelling as they are varied. Filmmaker John Marshall, creator of the long-awaited documentary *The Kalahari Family*, has been traveling to Namibia for over 50 years to document one of the last independent hunter-gatherer communities, the Ju/'hoansi,



Filming The Kalahari Family

and the challenges and traumas they face. The film *Ota Benga* reveals a bizarre and tragic episode in the history of early anthropology through the story of Ota Benga, an African pygmy who was brought to the United States in 1904 to be placed on exhibition at the St. Louis World's Fair, and who was later housed in a cage with monkeys at the Bronx Zoo. *A Wedding in Ramallah*, shot against the backdrop of the most recent Palestinian-Israeli conflict, provides an intimate and human portrayal of life for a newlywed Palestinian couple, Bassam and Mariam.

The festival runs November 7–10 with repeat screenings November 16 and 17. For a complete schedule, please visit www.amnh.org/mead or call 212-769-5200 after October 21.

This program is made possible with public funds from the New York State Council on the Arts, a state agency.

State of the Arts NYSCA

Give a Gift for All Seasons: AMNH Membership

Your friends and relatives can enjoy all the benefits of Membership, including complimentary Museum general admission, a year's subscription to *Natural History* magazine and *Rotunda*, invitation to Members' previews, and discounts in Museum shops and restaurants. Choose the Membership level and we'll do the rest. As a special holiday bonus, we'll include in the gift your choice of either the Museum's beautiful *Journeys 2003* engagement calendar (a $13.95 value, pictured), or *American Museum of Natural History: The Official Guide* (a $7.95 value).

Special offer expires December 31, 2002. Not valid for Members renewing their own Memberships.

1. Please send a one-year Membership at the category indicated to the person below:

❑ Individual $45 ❑ Dual $60 ❑ Family $75 ❑ Contributor $125

Recipient's Name _____

Street _____

City _____ State _____ Zip Code _____

Please include with my gift:

❑ *Journeys 2003* **OR** ❑ *AMNH: The Official Guide*

2. Please send a one-year Membership at the category indicated to the person below:

❑ Individual $45 ❑ Dual $60 ❑ Family $75 ❑ Contributor $125

Recipient's Name _____

Street _____

City _____ State _____ Zip Code _____

Please include with my gift:

❑ *Journeys 2003* **OR** ❑ *AMNH: The Official Guide*

Your Name _____

Street _____ City _____ State _____ Zip Code _____

❑ Enclosed is my check for $ _____ **OR**

❑ Please charge my: ❑ Visa ❑ MasterCard ❑ American Express

Card Number _____ Exp. Date _____ Signature _____

Members' Programs

LECTURES

An Evening with John McPhee and Ian Frazier

Wednesday, November 6 MM11-2
7:00 p.m.
Kaufmann Theater
$10 Members; $12 Non-Members

In his new book, *The Founding Fish*, John McPhee explores the unique place of the shad in American history as well as in natural history. In a conversation with fellow angler and writer Ian Frazier, McPhee will discuss this remarkable fish and the scientists and fishermen who are crucial to its preservation.

McPhee is a staff writer for the *New Yorker* and the author of 26 books, including *Annals of the Former World*, which was awarded the Pulitzer Prize in 1999. Frazier is a staff writer for the *New Yorker* and the author of *The Fish's Eye: Essays about Angling and the Outdoors*.

This discussion will be moderated by fellow *New Yorker* staff writer Mark Singer.

Margaret Mead: A Personal Remembrance

Tuesday, December 3 ML120302
7:00 p.m.
Kaufmann Theater
$10 Members; $12 Non-Members

Margaret Mead worked at the American Museum of Natural History from 1926 until her death in 1978. She was a field ethnographer, a psychological anthropologist, a pioneer in the use of photography in fieldwork, and a student of cultural change. Mead was the most famous anthropologist of her day, yet her work was widely accessible.

David Hurst Thomas, Curator in the Division of Anthropology, worked with Mead at the Museum for eight years, first as a colleague and then as her Department Chair. In his talk, Thomas discusses Mead's role as a Museum anthropologist and shares some personal memories and rare film clips from her life and career.

Please note that the following programs are available to Members only.

BEHIND-THE-SCENES TOURS

Behind the Scenes in Paleontology

Tuesday, November 19
6:30 p.m. MM11-5A
7:00 p.m. MM11-5B
7:30 p.m. MM11-5C
$25—Members only

Scientists in the Division of Paleontology investigate fossil mammals, reptiles, and invertebrates, traveling the globe in support of the Museum's research and collections. Join some of these scientists in exploring one of the largest paleontology collections in the world. Go behind the scenes into the famed dinosaur collection, and get a glimpse of the less well-known fossil mammal collection. The tour will end in the preparation laboratory for a hands-on opportunity.

Margaret Mead | AMNH

CHILDREN'S PROGRAMS

Journey through the Solar System

Saturday, November 16
10:30 a.m.–12:00 p.m. MM11-3A
1:30–3:00 p.m. MM11-3B
Rose Center Classroom
$25—Members only

How can we tell a planet from a star? Why does the appearance of the Moon change? Participants will make observations and conduct experiments while learning about the celestial objects in our solar system. Stephen Brodbar, Earth and Planetary Sciences Instructor, leads this program. *(Ages 7–10)*

Gingerbread House Workshop

Saturday, November 30
10:30 a.m.–12:00 noon MM11-5A
1:30–3:00 p.m. MM11-5B
Sunday, December 1
10:30 a.m.–12:00 noon MM12-1A
1:30–3:00 p.m. MM12-1B
Rose Center Classroom
$45/pair—Members only

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 place each gumdrop, starlight, and candy-cane. Young contractors' eyes will sparkle and their mouths will water as they sample the building materials to guarantee suitability. Consultant June Myles will be on hand to help create these no-bake gingerbread fantasies. *(Ages 5–12, each child with one adult)*

FREE HALL TOURS

Things that Go "Bump" in the Museum

Saturday, October 26 and Sunday, October 27
1:00 p.m. MT1002
Free (Registration required)—Members only

It's that time of year when we celebrate All Hallow's Eve with ghoulish costumes and pumpkin carvings. Museum Tour Guides Judith Freeman and Donna Walcavage take us on a tour through the Museum to view the "scariest," "strangest," and most "spirited" displays in the halls.

T. Rex from Head to Toe

Saturday, November 2 and Sunday, November 3
1:00 p.m. MT1102
Free (Registration required)—Members only

Ever since the Museum discovered the world's first *Tyrannosaurus rex* a hundred years ago, this dinosaur has seized our imagination, virtually defining what a dinosaur is to most people. Join Museum Tour Guide Christian Waters to hear how tough life was for a *T. rex* 65 million years ago and find out why *T. rex* is more closely related to a chicken than it is to most other dinosaurs.

For tickets, call 212-769-5200 or visit www.amnh.org. All Members' programs require advance registration.

Learning to Love Lucy

Sunday, December 1 MT120102
4:00 p.m.
Free (Registration required)—Members only

Curious about the *Homo sapiens* family tree? Branch out and explore the Hall of Human Biology and Evolution with Museum Tour Guide Judith Freeman and discover the fossil history of bipedal hominids.

PREVIOUSLY LISTED

Black Rock Forest Turtle Trip

Saturday, October 5 MM10-1
9:00 a.m.–5:00 p.m.
$70

New York's Black Rock Forest is a 3,750-acre preserve dedicated to scientific research, education, and conservation of the natural ecosystem that once covered the entire Hudson River region. Located in Cornwall, NY, in the Hudson Highlands, the forest is home to numerous wetlands and great biological diversity. Participants will visit the forest's new laboratory facility, then proceed to the forest interior, where Dave Karrmann, biologist and Senior Museum Instructor in the Department of Education, will supervise the collection, marking, recording, and release of aquatic turtles. Transportation by chartered bus is included.

Rosalind Franklin: Dark Lady of DNA

Tuesday, October 22 MM10-6
7:00 p.m.
Kaufmann Theater
$10 Members; $12 Non-Members

Rosalind Franklin was a British chemist whose research in the 1950s was critical to Watson and Crick's discovery of the structure of DNA. When she died at the age of 37, however, she had not been recognized for her contribution. Brenda Maddox's latest book, *Rosalind Franklin: Dark Lady of DNA*, reveals Franklin as an intelligent, outspoken young woman whose brief life produced one of the most important findings in science.

Brenda Maddox | The Irish Times

Maddox is a biographer and journalist specializing in media issues. Her previous books include *Nora: a biography of Nora Joyce*, which won several awards.

Please join us for the Members' Preview of

EINSTEIN

Thursday, November 14, 6:00–8:30 p.m.

Reservations are required. Please call the Membership Office at 212-769-5606.

General Information

HOURS

Museum: Daily, 10:00 a.m.–5:45 p.m.
The Rose Center remains open until 8:45 p.m. on Friday. The Museum is closed Thanksgiving and Christmas.
Space Show: Every half hour, Sunday–Thursday and Saturday, 10:30 a.m.–4:30 p.m., Friday, 10:30 a.m.–7:30 p.m.
Research Library: Tuesday–Friday, 11:00 a.m. –4:00 p.m.
Hours are subject to change.

ENTRANCES

During Museum hours, visitors may enter through the subway (lower level), Central Park West at 79th Street (second floor), and the Rose Center/81st Street entrances. The 77th Street and Weston Pavilion/Columbus Avenue entrances are closed until further notice.

TRANSPORTATION AND PARKING

Subway: B (weekdays) or C to 81st Street; 1 or 2 to 79th Street
Bus: M7, M10, M11, or M104 to 79th Street; M79 to Central Park West
Parking Garage: Open daily, 8:00 a.m.–11:00 p.m.; enter from West 81st Street. Members receive a discounted rate of $10 if entering after 4:00 p.m. To receive this rate, you must have your parking ticket validated at the Security Desk (first floor, Central Park West entrance). For more information, call 212-313-7278.

FOOD SERVICE

Museum Food Court: Daily, 11:00 a.m.–4:45 p.m. (*lower level*)
Café on 4: Saturday and Sunday, 11:00 a.m.–4:45 p.m (*fourth floor*)
Café 77: Saturday and Sunday, 11:00 a.m.–4:45 p.m (*first floor*)
Hours are subject to change.

MUSEUM SHOP

The following Museum Shops are open during regular Museum hours:
Main Shop (*first and second floors*)
Dinostore and More (*fourth floor*)
Planetarium Shop (*Rose Center, lower level*)
Satellite Shop (*Rose Center, first floor*)
Einstein Shop (*fourth floor*)

PHONE NUMBERS

Museum Information	212-769-5100
Membership Office	212-769-5606
Planetarium Information	212-769-5900
Member Birthday Parties	212-769-5606
Education Department	212-769-5310
Planned Giving Office	212-769-5119
Discovery Tours	212-769-5700
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
Web site	www.amnh.org

AMNH eNotes delivers the latest information on Museum programs and events to you via email. Visit www.amnh.org to sign up today!

AMERICAN MUSEUM OF NATURAL HISTORY

Partial jawbone | Javier Trueba

The First Europeans: Treasures from the Hills of Atapuerca
January 11 to April 13, 2003

Head for the hills that are home to notable ancient hominid and animal fossils. Catch a glimpse of these "first Europeans" from the Spanish hills of Atapuerca.

Co-organized by the American Museum of Natural History and Consejería de Educación y Cultura de Castilla y León.

Membership Department
Central Park West at 79th Street
New York, New York 10024-5192
www.amnh.org

Rotunda.
American Museum of Natural History
Received on: 10-07-02

rotunda

OL. 27 NO. 6 DECEMBER 2002

MEMBERS' NEWSLETTER

570
.52
N
v. 27
n. 6
Dec 2002

AMERICAN MUSEUM OF NATURAL HISTORY

Museum Notes

Courtesy of the Archives, California Institute of Technology

Einstein

Through August 10, 2003
Gallery 4

Albert Einstein truly changed the world, what we know about it, and how we think about it. This unprecedented exhibition will profile this extraordinary scientific genius, whose achievements were so substantial and groundbreaking that his name is virtually synonymous with science in the public mind. On display in the United States for the first time will be letters and personal effects; documents related to Einstein's scientific work including several rare manuscripts; and lucid, eye-opening explanations of Einstein's theories.

Organized by the American Museum of Natural History, New York; The Hebrew University of Jerusalem; and the Skirball Cultural Center, Los Angeles. Einstein *is made possible through the generous support of Jack and Susan Rudin and the Skirball Foundation, and of the Corporate Tour Sponsor, TIAA-CREF.*

Einstein: Curator's Lecture

Thursday, December 5 EL120502
7:30–9:00 p.m.
Kaufmann Theater
$15 ($13.50 Members, students, senior citizens)

Join Michael M. Shara, the Museum's Curator-in-Charge of Astrophysics and curator of *Einstein*, as he discusses Einstein the physicist, Einstein the man, and the profound and world-changing synergy between the two.

This lecture is supported by The Dibner Fund.

Einstein and the FBI

Thursday, December 12 EL121202
7:00–8:30 p.m.
Kaufmann Theater
$15 ($13.50 Members, students, senior citizens)

During a 23-year campaign to undermine Albert Einstein's reputation, the FBI collected reams of material, tapped Einstein's phone, opened his mail, and attempted to revoke his U.S. citizenship. Fred Jerome, author of *The Einstein File: J. Edgar Hoover's Secret War against the World's Most Famous Scientist*, will reveal the FBI's findings as he weaves a story worthy of any Cold War–era spy novel.

This lecture is part of a series supported by The Dibner Fund.

Time Travel: Fantasy or Reality?

Wednesday, December 18 EL121802
7:00–9:00 p.m.
Hayden Planetarium Space Theater
$15 ($13.50 Members, students, senior citizens)

From H. G. Wells to *Star Trek*, the notion of time travel has captured our imaginations since the late 19th century. With the aid of clips from now-classic films, J. Richard Gott, the author of *Time Travel in Einstein's Universe* and Professor of Astrophysical Sciences at Princeton University, will clarify how Einstein's groundbreaking work suggests the possibility of time travel and will speculate whether this intriguing fantasy will ever become a reality.

This lecture is part of a series supported by The Dibner Fund.

Howard Gardner on Genius

Wednesday, January 15 EL011503
7:00–9:00 p.m.
LeFrak Theater
$15 ($13.50 Members, students, senior citizens)

Einstein was undeniably a genius, but was he unique? How does he compare to other scientists like Darwin and to geniuses in other fields, such as Pablo Picasso and Mahatma Gandhi? Noted psychologist Howard Gardner will discuss the genius of Einstein in relation to that of other giants of the past century. Exploring the very notion of creative genius, Gardner will consider whether geniuses are born or made and will discuss the role of genes, parenting, mentors, and social forces in the making of a genius.

Gardner is the John H. and Elisabeth A. Hobbs Professor in Cognition and Education at the Harvard Graduate School of Education, and the author of 18 books, including *Frames of Mind: The Theory of Multiple Intelligences*.

Howard Gardner | Jerry Bauer

Cover: *The new Expedition Center* | M. Carlough/AMNH

(continued on next page)

The Butterfly Conservatory: Tropical Butterflies Alive in Winter

Through May 26, 2003
Hall of Oceanic Birds

Butterflies returns to the American Museum of Natural History! Now in its fifth year, this highly popular wintertime destination has been enjoyed by children and adults alike. The exhibition features a rainbow of hundreds of live butterflies flying freely inside a tropical vivarium filled with lush foliage and blooming plants.

The Butterfly Conservatory is made possible through the generous support of Bernard and Anne Spitzer and Con Edison.

Under Antarctic Ice

Through March 2, 2003
Akeley Gallery

This exhibition of 40 spectacular large-format photographs by one of the world's leading underwater photographers, Norbert Wu, examines Antarctica's harsh and beautiful marine world.

This exhibition is made possible by the generosity of the Arthur Ross Foundation.
Developed by Norbert Wu Productions and produced by the Pacific Grove Museum of Natural History.

© 2002 Norbert Wu / www.norbertwu.com

Kokia drynarioides | D. Liittschwager and S. Middleton

Remains of a Rainbow: Rare Plants and Animals of Hawaii

December 7, 2002–March 2, 2003
IMAX® Gallery

Photographers David Liittschwager and Susan Middleton have taken intimate portraits of Hawaii's endangered species which invite viewers to look these creatures in the eye, appreciate the elegance of their features, and discover kinship in unexpected faces. This exhibition features approximately 100 photographs.

This exhibition was organized by Umbrage Editions, New York, in association with Environmental Defense.

rotunda

ISSN 0194-6110
USPS Permit #472-650
Vol. 27, No. 6, December 2002

Lewis W. Bernard, *Chairman*
Ellen V. Futter, *President*
Lynn DeBow, *Vice President for Development and Membership*
Rosemary Caulk, *Director of Membership*

Rotunda is published bimonthly, except for a combined issue in July/August/September and a single issue in December, by the Membership Office of the American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192. Phone: 212-769-5606. Web address: www.amnh.org. Museum Membership of $45 per year and up includes a subscription to *Rotunda*.

©2002 American Museum of Natural History

Periodical postage paid at New York, NY, 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 USPS 472-650). Date of filing: October 1, 2002. Frequency of issue: Bimonthly except for a combined issue in July/August/September and a single issue in December. Number of issues published annually: 6. Annual subscription price: Museum Membership of $45 a year or higher. 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: Membership Office, American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192. Editor: Karen Miller. Owner: American Museum of Natural History. Known bondholders, mortgage 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 preceding 12 months, and (B) signifies average number of copies of single issue published nearest to filing date. Total number of copies (A) 60,000 (B) 60,000. Paid circulation through Dealers and Carriers, Street Vendors, Counter Sales, and Other Non-USPS Paid Distribution (A) and (B): None. Mail subscription: (A) 54,120 (B) 53,356. Free distribution by mail: (A) 220 (B) 120. Free distribution outside of mail: (A) 4,000 (B) 4,200. Total distribution: (A) 58,340 (B) 57,676. Copies not distributed: (A) 1,660 (B) 2,324. Return from news agents: None. Percent Paid and or Requested Circulation: 93%. I certify that the statements made by me above are correct and complete. (signed) Rosemary Caulk

Printed by Brown Printing, East Greenville, Pennsylvania.

Advance tickets may be purchased online at **www.amnh.org** or by calling **212-769-5200.** A service charge may apply.

(continued from previous page)

IMAX® Movies

Samuel J. and Ethel LeFrak Theater

Kilimanjaro: To the Roof of Africa follows a team of hikers up Mount Kilimanjaro, allowing audiences to experience the biodiversity and mysteries of Africa's tallest mountain.

Pulse: a STOMP Odyssey
Take a rhythmic voyage of discovery around the world of percussion and movement.

Call 212-769-5100 for show times.

Scene from Pulse: a STOMP Odyssey

Space Show
The Search for Life: Are We Alone?

The question of whether life exists beyond Earth has always captivated the public's—and science's—imagination. This new Space Show will whisk you on an incredible journey from the lightless depths of Earth's oceans to newly discovered planets on a quest for worlds that might support life.

Developed by the American Museum of Natural History in collaboration with the National Aeronautics and Space Administration (NASA). Written by Ann Druyan and Steve Soter. Music by Stephen Endelman.
The Search for Life: Are We Alone? *is made possible through the generous support of Swiss Re.*

Europa, Jupiter | AMNH/NASA

Sweet Treats from Restaurant Associates

This December, Restaurant Associates is pleased to offer Museum Members a complimentary old-fashioned hot chocolate (a $1.95 value) with the purchase of any $3.95 dessert. Dessert choices include chocolate yogurt bundt cake, apple tart, passion raspberry tart, the chocolate pyramid, and more. Also, look for other seasonal treats throughout the holidays.

As always, Museum Members receive a 15% discount at the Museum Food Court, Café on 4, and Café 77. To obtain the discount, simply present your Membership card at the start of your transaction.

Birthday Adventures at AMNH

"Thank you so much for a terrific party! I got so many compliments from our guests."—Eileen Tang, who held a dinosaur party for her four-year-old son, Michael.

Linda Kaye's Partymakers brings its winning combination of education and entertainment to the Museum with four exciting theme parties: **Dinosaur Discovery, Global Mysteries, Cosmic Blastoff,** and **Safari Adventure.** Parties are tailored for children ages four and up, and are available **seven days a week** as a benefit to Contributor and higher-level Museum Members.

You can also add the new **"Decorate-a-Cake"** party option to any two-hour theme party. The birthday child is the "Head Chef" as all the party guests create the decorations for the birthday cake using pastry bags and their imaginations! Hope your guests are hungry for FUN!

For more information and to request a date see our online brochure at www.partymakers.com or call Linda Kaye's Partymakers at 212-288-7112.

Birthday party invitation

New Year, New Benefits!

The New Year brings great new benefits for AMNH Members.

Beginning January 1, 2003, all Members of the American Museum of Natural History will receive:
Unlimited complimentary admission to the Museum's special exhibitions *(Number of admissions per visit corresponds to the level of Membership)*

Supporter and Sponsor Members will receive:
- Complimentary coat check
- An invitation to the Members Star Party in the Hayden Planetarium, a fascinating new annual event exclusively for higher-level Members, with live star talks—the perfect opportunity to learn more about the night sky!

Sponsor Members also will receive:
- An invitation to a gallery tour for each special exhibition, guided by a member of the curatorial staff
- Advance notice of special Members-only programs, expeditions, and weekend trips

REMINDER:

Membership dues will increase on January 1, 2003.

This is the first Membership dues increase since July 1, 1998.

New rates and new benefits go into effect January 1, 2003.

Renew now at the 2002 rates!
Your Membership will be extended for one full year, regardless of your current expiration date.

Rate increases are as follows:

Individual: from $45 to $55

Dual: from $60 to $75

Family: from $75 to $100

Contributor: from $125 to $175

Supporter: from $300 to $375

Sponsor: from $600 to $750

If you have not already renewed your Membership, call the Membership Office at 212-769-5606 or visit *www. amnh.org* to extend your Membership now!

Give a Gift for All Seasons: AMNH Membership

Your friends and relatives can enjoy all the benefits of Membership, including complimentary Museum general admission, a year's subscription to *Natural History* magazine and *Rotunda*, invitation to Members' previews, and discounts in Museum shops and restaurants. Choose the Membership level and we'll do the rest. As a special holiday bonus, we'll include in the gift your choice of either the Museum's beautiful *Journeys 2003* engagement calendar (a $13.95 value, pictured), or *American Museum of Natural History: The Official Guide* (a $7.95 value).

Special offer expires December 31, 2002. Not valid for Members renewing their own Memberships.

1. Please send a one-year Membership at the category indicated to the person below:

❑ Individual $45 ❑ Dual $60 ❑ Family $75 ❑ Contributor $125

Recipient's Name _____

Street _____

City _____ State _____ Zip Code _____

Please include with my gift:

❑ *Journeys 2003* OR ❑ *AMNH: The Official Guide*

2. Please send a one-year Membership at the category indicated to the person below:

❑ Individual $45 ❑ Dual $60 ❑ Family $75 ❑ Contributor $125

Recipient's Name _____

Street _____

City _____ State _____ Zip Code _____

Please include with my gift:

❑ *Journeys 2003* OR ❑ *AMNH: The Official Guide*

Your Name _____

Street _____ City _____ State _____ Zip Code _____

❑ Enclosed is my check for $ _____ OR

❑ Please charge my: ❑ Visa ❑ MasterCard ❑ American Express

Card Number _____ Exp. Date _____ Signature _____

New Children's Expedition Center

A Rose Center educator with students at the Planets cart | M. Carlough/AMNH

Touch meteorites, look through a telescope, and discover what you would look like to an alien with infrared eyes! The just-launched Expedition Center—three colorful, eye-catching carts in the Cullman Hall of the Universe—is designed to introduce visitors ages 5–12 and their families to the basic ideas and tools of astronomy, give them an opportunity to discover the latest cosmic concepts and phenomena, and help them actively explore planets, telescopes, and the science of light.

Using new technologies, guided learning, and creative hands-on activities, the Expedition Center encourages children's natural tendency to ask "why?" The aim is to bring the exhibits in the hall to life for youngsters and to kindle a lasting interest in science. The Center's materials and programming enable children to explore the hall to find their own answers to questions.

The Expedition Center is made possible by a generous gift from the Gary Saltz Foundation, Inc. The carts were inspired by the late Anita Saltz, whose family remembers that she "loved to see the wonder in children's eyes. The Expedition Center was conceived to bring that out in the thousands of children who visit the Museum every year."

The Expedition Center consists of moveable workstations where kids can conduct experiments with the physics of light and space, matters of gravity, energy and motion, and scale in time and space. Through these "please-touch" encounters with scientific tools, laboratory equipment, and experimentation, the Center generates excitement about science and encourages in-depth exploration of scientific processes.

A Rose Center educator and students explore light. | M. Carlough/AMNH

The subjects of the carts are:

Light—This cart allows investigation of the visible light spectrum using prisms; includes an infrared camera for discovering part of the spectrum that human eyes cannot detect; and has a spectrometer to measure light patterns.

Telescopes—This cart explores the physics behind the inner workings of telescopes, including mirrors and reflection and refraction optics, and also explores the practical use of telescopes by viewing astronomy targets throughout the Rose Center.

Planets—This cart explores meteorites, magnetism, and the causes and shapes of craters.

Additionally, an Internet cart is available with online computers for browsing space-related Web sites for up-to-the-minute information from and about space.

The Expedition Center suggests activities that introduce children to learning skills which parents and teachers can reinforce at home or at school and provides a rich array of resources that will help them continue the inquiry process and independent investigation beyond the Museum visit.

Children interested in delving deeper into themes illustrated by the Expedition Center can explore related educational programming in the Rose Center. Workshops there will build upon the experiences and insight gained at the Expedition Center, exploring such topics as comets and living in space, and offering activities such as building a refracting telescope to take home, making a Moon phase calendar, and viewing sunspots (weather permitting).

Brings the Universe Down to Earth

The Telescopes cart | M. Carlough/AMNH

Schedule

Currently, the Expedition Center is in the Cullman Hall of the Universe on Saturdays and Sundays from 10:30 a.m. to 12:00 noon and from 1:30 to 3:30 p.m.

Future Expedition Centers

In fall 2003, a second Expedition Center will open in the newly renovated Milstein Hall of Ocean Life, which will explore hydrodynamics and marine life. A third Expedition Center is planned for the future.

Here is an example of one of the activities on the Planets Expedition Center Cart that you can try at home. Read about density and find out what it means.

DESCRIBING DENSITY

If you had to describe a planet to a friend, what would you say about it? You could describe its color or its **size**. You could also tell your friend what the planet's **mass** is—that means how much matter it contains. Scientists combine mass and size into one easy term, **density**. When something has a lot of mass squeezed into a little space, it is said to have a high density. Rocks and metals are things that have high densities. But if there is less mass in a bigger space, then you have something with a low density, like a marshmallow or a feather.

You can test the density of different objects by comparing them with the density of water. A rock will sink to the bottom of a cup of water, so we say it has a higher density than water. A wooden ball will float on top of the water, so we say that it has a lower density than water. Other liquids, and even gases, have densities, and they can float and sink just like solid objects can.

Let's explore the densities of different objects in your home. Here's what you'll need:

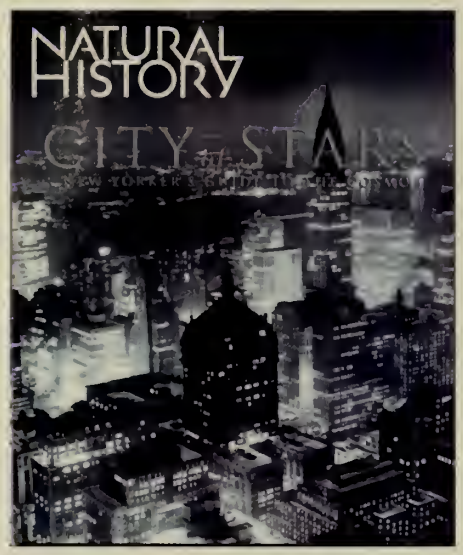
- water (colored with food coloring)
- corn syrup
- vegetable oil
- a large clear container, such as an empty jar
- an assortment of small objects, such as marbles, grapes, nuts, bolts, beans, and pasta. Use your imagination!

1. Pour the syrup into the container until it is one quarter full.
2. Slowly pour the same amount of vegetable oil into the container.
3. Slowly pour in the same amount of water. (If some mixing occurs, wait a little bit, and watch how the three liquids separate into three levels.)
4. Notice how the water floats between the oil and the syrup. Water is *less* dense than syrup, but water is *denser* than the vegetable oil.
5. Now, drop in a grape. Where does the grape settle?
6. Try the nut. Which layer does that float in?
7. What about a small marble?

Wherever the object settles tells you how dense it is compared to the liquids it is between. If an object settles on top of the syrup but at the bottom of the water, then you know it is denser than water and less dense than syrup.

How dense are the planets? The four planets closest to the Sun (Mercury, Venus, Earth, and Mars) are made out of mostly rocky material. If you had a swimming pool big enough to put them in, all four planets would sink to the bottom. However, the planet Saturn is mostly made of gas and would actually float in the pool!

Members' Programs



LECTURE

City of Stars

Tuesday, January 14 ML011403
7:00 p.m.
Kaufmann Theater
$10 Members; $12 Non-Members

Join Neil deGrasse Tyson, astrophysicist and Frederick P. Rose Director of the Hayden Planetarium, for a slide tour of all that is astronomical in New York City. Inspired by his work for *Natural History* magazine's special issue, "City of Stars," Tyson will bring to life the monuments, sculptures, and store fronts of New York City that enable New Yorkers to remain within arm's reach of the cosmos, without even looking up.

For tickets, call 212-769-5200 or visit www.amnh.org. All Members' programs require advance registration.

PREVIOUSLY LISTED

Margaret Mead: A Personal Remembrance

Tuesday, December 3 ML120302
7:00 p.m.
Kaufmann Theater
$10 Members; $12 Non-Members

Margaret Mead worked at the American Museum of Natural History from 1926 until her death in 1978. She was a field ethnographer, a psychological anthropologist, a pioneer in the use of photography in fieldwork, and a student of cultural change. Mead was the most famous anthropologist of her day, yet her work was widely accessible.

David Hurst Thomas, Curator in the Division of Anthropology, worked with Mead at the Museum for eight years, first as a colleague and then as her Department Chair. In his talk, Thomas discusses Mead's role as a Museum anthropologist and shares some personal memories and rare film clips from her life and career.

David Hurst Thomas | D. Finnin/AMNH

Please note that the following programs are available to Members only.

BEHIND-THE-SCENES TOUR

Behind the Scenes in Herpetology

Wednesday, January 22 MB012203
6:30, 7:00, or 7:30 p.m.
$25

The Department of Herpetology maintains one of the largest herpetological collections in the world including specimens from Mexico, Africa, Pakistan, China, New Guinea, and the United States. It may be thought of as an ever-growing global library of amphibian and reptile faunas. Go behind the scenes and meet Museum scientists who will offer an exciting tour of this research collection in its new state-of-the-art archive facilities.

Members' Special Discount Days in the Museum Shops

On Saturday, December 7, and Sunday, December 8, the Museum Shops will offer a special 20% discount for Members instead of the normal 10% discount. It's the perfect opportunity to stock up on fascinating and fanciful holiday gifts!

SPECIAL PROGRAM

Analyzing Artifacts

Thursday, January 16 MK011603
6:00 p.m.
Rose Center Classroom
$25, limited to 25 adults

Archaeologists study humankind via artifacts—objects made, modified, or used by humans—which can reveal innumerable details about individuals and entire cultures. In this hands-on workshop, participants will learn the basic analytical techniques employed both in the field and in the lab to gain insight into how artifacts can illuminate previously unknown cultural practices and customs. Edith Gonzalez de Scollard, Supervising Museum Instructor, Department of Education, leads this workshop.

David Grover and the Big Bear Band entertain children at the Members' Family Holiday Party. | D. Finnin/AMNH

Members' Family Holiday Party

Saturday, December 7 MP120702
12:30–4:00 p.m.
School lunchrooms

Join us at the Museum for holiday activities, workshops, and live entertainment! Children will sing along with award-winning folk trio Dave Grover and the Big Bear Band as they perform Chanukah and Christmas songs. Members must register in advance by calling 212-769-5200. Free for Family and higher-level Members.

Pteranodon painting | AMNH Library/AMNH Photo Studio

CHILDREN'S PROGRAM

A Wooly Mammoth Tooth Makes a Big Impression

Sunday, January 26 MC012603
10:30 a.m.–12:00 noon (Ages 5–7)
1:30–3:00 p.m. (Ages 8–12)
Rose Center Classroom
$25

The now-extinct woolly mammoth, closely related to living African and Asian elephants, is famous for its extravagantly curved and twisted tusks. Children will make a woolly mammoth tooth impression using a life-sized reproduction and will learn what can be revealed about an animal by studying its teeth. Pamela Popeson, educator and former Director of the Museum's Fossil Reproduction Department, leads this workshop.

FREE HALL TOUR

The Lost World

Saturday, January 25, and
Sunday, January 26 MT0103
4:00 p.m.
Free (Registration required)

Step back in time and into the pages of Sir Arthur Conan Doyle's classic *The Lost World*. Travel through the halls with Museum Tour Guide Judith Freeman and learn about the living fossils that Professor Challenger and company encountered during their adventures.

Painting by Charles R. Knight | AMNH Library/AMNH Photo Studio

Link Your Name with a Seat for Science

D. Finnin/AMNH

In the Newly Renovated
Samuel J. and Ethel LeFrak Theater

Help perpetuate the American Museum of Natural History's long tradition of scientific research into the natural world by endowing a Seat for Science in the Museum's Samuel J. and Ethel LeFrak Theater, an auditorium for viewing IMAX® films and for conferences and symposia on important scientific topics.

Your generous contribution of $2,500, in honor or in memory of a loved one or in celebration of a special occasion, will support the Museum's endowment for scientific research, and will help provide today's and tomorrow's scientists with the essential tools to address our world's many mysteries and challenges.

In recognition of your generosity, a plaque on each seat that you sponsor will link your name with the renowned research and expeditions at the American Museum of Natural History.

For more information, please call 212-769-5286.

Get Ready for 2003!

The new Museum calendars are here! Stop by the Museum Shop and get the perfect gift for yourself and everyone on your holiday list. Members' discount applies.

Journeys 2003, this year's engagement calendar, dazzles with images from the farthest reaches of the universe and of the art and artifacts collected by scientists and naturalists on every continent. With more than 100 illustrations drawn from the Museum's collections, *Journeys 2003* is a handsome addition to your desk or a convenient calendar to carry with you.
7" x 7", spiral-bound, $13.95

Universe 2003 is the latest edition in the Museum's popular series of wall calendars celebrating the rich colors of the cosmos. The brilliant sun, fascinating Saturn, and fireworks-like galaxies and nebulae light up each month of this spectacular calendar. Ample space is provided for writing in daily appointments.
12" x 24", $11.95

Masks 2003 brings to life the legends and art of the traditional cultures of the Pacific Northwest. Each month of this wall calendar features a handsome mask with its compelling story. Also included are archival photos from the Museum's expeditions to the region, highlighting the traditional role of the masks and other native art. Ample space is provided for writing in daily appointments.
14" x 24", $15.99

Do you know a young dinosaur enthusiast? The ***Create Your Own Dinosaur Activity Calendar***, with a different dinosaur to color each month and a year's worth of dinosaur stickers, is the perfect gift for the budding paleontologist. If your child's interest is space, the ***Create Your Own Night Sky Activity Calendar*** with a space project, space news, and a packet of glow-in-the-dark stickers will leave your child in seventh heaven.
10" x 12", $10.95

Exclusively AMNH. Holiday 2002.

Liven up the season with these beautiful holiday pins based on the Museum's rare book collection. Designed exclusively for the American Museum of Natural History.

This unique ornament features the historic Central Park West facade of the Museum. Each piece is individually hand-painted using a reverse-painting technique on a blown-glass sphere. Handsomely boxed, this is the perfect gift for any Museum lover.

10% OFF

Offer valid thru December 31, 2002.

Bring in this advertisement to receive an additional 10% OFF at any of our Museum Shops. Member discount does apply. Cannot be combined with AMNH employee discount. Offer can not be used towards telescope purchases. Orders may also be placed by calling 1-800-671-7035 or by email: gruber@amnh.org.

American Museum of Natural History

A Gifted Idea.

Central Park West at 79th Street • NYC

General Information

HOURS

Museum: Daily, 10:00 a.m.–5:45 p.m.
The Rose Center remains open until 8:45 p.m. on Friday. The Museum is closed Thanksgiving and Christmas.
Space Show: Every half hour, Sunday–Thursday and Saturday, 10:30 a.m.–4:30 p.m., Friday, 10:30 a.m.–7:30 p.m.
Research Library: Tuesday–Friday, 11:00 a.m. –4:00 p.m.
Hours are subject to change.

ENTRANCES

During Museum hours, visitors may enter through the subway (lower level), Central Park West at 79th Street (second floor), and the Rose Center/81st Street entrances. The 77th Street and Weston Pavilion/Columbus Avenue entrances are closed until further notice.

TRANSPORTATION AND PARKING

Subway: B (weekdays) or C to 81st Street; 1 or 9 to 79th Street
Bus: M7, M10, M11, or M104 to 79th Street; M79 to Central Park West
Parking Garage: Open daily, 8:00 a.m.–11:00 p.m.; enter from West 81st Street. Members receive a discounted rate of $10 if entering after 4:00 p.m. To receive this rate, you must have your parking ticket validated at the Security Desk (first floor, Central Park West entrance). For more information, call 212-313-7278.

FOOD SERVICE

Museum Food Court: Daily, 11:00 a.m.–4:45 p.m. (*lower level*)
Café on 4: Saturday and Sunday, 11:00 a.m.–4:45 p.m (*fourth floor*)
Café 77: Daily, 11:00 a.m.–4:45 p.m (*first floor*)
Hours are subject to change.

MUSEUM SHOP

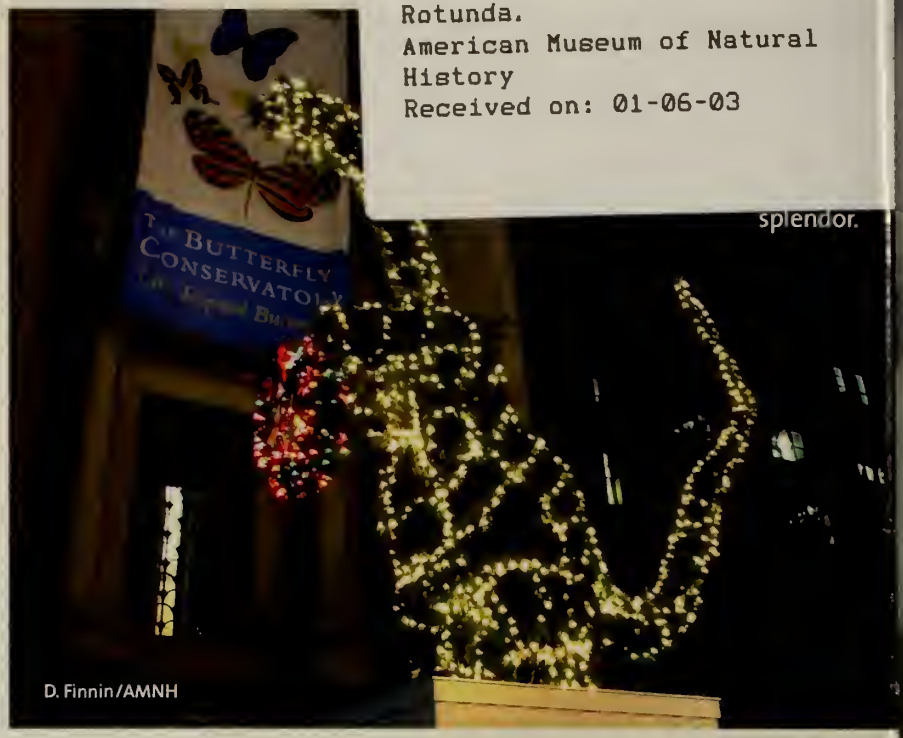
The following Museum Shops are open during regular Museum hours:
Main Shop (*first and second floors*)
Dinostore and More (*fourth floor*)
Planetarium Shop (*Rose Center, lower level*)
Satellite Shop (*Rose Center, first floor*)
Einstein Shop (*fourth floor*)
Butterflies Shop (*second floor*)

PHONE NUMBERS

Museum Information	212-769-5100
Membership Office	212-769-5606
Planetarium Information	212-769-5900
Member Birthday Parties	212-769-5606
Education Department	212-769-5310
Planned Giving Office	212-769-5119
Discovery Tours	212-769-5700
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
Web Site	www.amnh.org

AMNH eNotes delivers the latest information on Museum programs and events to you via email. Visit www.amnh.org to sign up today!

AMERICAN MUSEUM OF NATURAL HISTORY



D. Finnin/AMNH

Rotunda.
American Museum of Natural History
Received on: 01-06-03

splendor.

Membership Department
Central Park West at 79th Street
New York, New York 10024-5192
www.amnh.org

rotunda

/OL. 28 NO. 1 JANUARY/FEBRUARY 2003

MEMBERS' NEWSLETTER

H70
U52
5
. 28
o. 1
an-Feb
002

AMERICAN MUSEUM OF NATURAL HISTORY

Museum Notes

Einstein

Through August 10, 2003
Gallery 4

Albert Einstein truly changed the world, what we know about it, and how we think about it. This unprecedented exhibition profiles this extraordinary scientific genius, whose achievements were so substantial and groundbreaking that his name is virtually synonymous with science in the public mind. On display in the United States for the first time are letters and personal effects; documents related to Einstein's scientific work including several rare manuscripts; and lucid, eye-opening explanations of Einstein's theories.

Organized by the American Museum of Natural History, New York; The Hebrew University of Jerusalem; and the Skirball Cultural Center, Los Angeles. Einstein *is made possible through the generous support of Jack and Susan Rudin and the Skirball Foundation, and of the Corporate Tour Sponsor, TIAA-CREF.*

Howard Gardner on Genius

Wednesday, January 15 EL011503
7:00–9:00 p.m.
LeFrak Theater
$15 ($13.50 Members, students, senior citizens)

Einstein was undeniably a genius, but was he unique? How does he compare to other scientists like Darwin and to geniuses in other fields, such as Pablo Picasso and Mahatma Gandhi? Noted psychologist Howard Gardner will discuss the genius of Einstein in relation to that of other giants of the past century. Exploring the very notion of creative genius, Gardner will consider whether geniuses are born or made and will discuss the role of genes, parenting, mentors, and social forces in the making of a genius.

Gardner is the John H. and Elisabeth A. Hobbs Professor in Cognition and Education at the Harvard Graduate School of Education, and the author of 18 books, including *Frames of Mind: The Theory of Multiple Intelligences*.

© 2002 Norbert Wu / www.norbertwu.com

The Butterfly Conservatory: Tropical Butterflies Alive in Winter

Through May 26, 2003
Hall of Oceanic Birds

Butterflies returns to the American Museum of Natural History! Now in its fifth year, this highly popular wintertime destination has been enjoyed by children and adults alike. The exhibition features a rainbow of hundreds of live butterflies flying freely inside a tropical vivarium filled with lush foliage and blooming plants.

The Butterfly Conservatory *is made possible through the generous support of Bernard and Anne Spitzer and Con Edison.*

M. Carlough/AMNH

Cover: Skull from the Pit of the Bones at Atapuerca, Spain, will be on view as part of The First Europeans: Treasures from the Hills of Atapuerca. | ©1999 Javier Trueba

Under Antarctic Ice

Through March 2, 2003
Akeley Gallery

This exhibition of 40 spectacular large-format photographs by one of the world's leading underwater photographers, Norbert Wu, examines Antarctica's harshly beautiful marine world.

This exhibition is made possible by the generosity of the Arthur Ross Foundation.
Developed by Norbert Wu Productions and produced by the Pacific Grove Museum of Natural History.

Remains of a Rainbow: Rare Plants and Animals of Hawaii

Through March 2, 2003
IMAX® Gallery

Photographers David Liittschwager and Susan Middleton have taken intimate portraits of Hawaii's endangered species which invite viewers to look these creatures in the eye, appreciate the elegance of their features, and discover kinship in unexpected faces.

This exhibition was organized by Umbrage Editions, New York, in association with Environmental Defense.

Space Show
The Search for Life: Are We Alone?

The question of whether life exists beyond Earth has always captivated the public's—and science's—imagination. This new Space Show will whisk you on an incredible journey from the lightless depths of Earth's oceans to newly discovered planets on a quest for worlds that might support life.

Developed by the American Museum of Natural History in collaboration with the National Aeronautics and Space Administration (NASA). Written by Ann Druyan and Steve Soter. Music by Stephen Endelman.
The Search for Life: Are We Alone? *is made possible through the generous support of Swiss Re.*

IMAX® Movies
Samuel J. and Ethel LeFrak Theater

Kilimanjaro: To the Roof of Africa
Follow a team of hikers up Mount Kilimanjaro, and experience the biodiversity and mysteries of Africa's tallest mountain.

Pulse: a STOMP Odyssey
Take a rhythmic voyage of discovery around the world of percussion and movement.

Call 212-769-5100 for show times.

Still from the IMAX® film Pulse: a STOMP Odyssey

Photo collage by Sean O'Halloran

Black History Month Movement '63: The Pinnacle of the Civil Rights Struggle in America
Saturdays, February 1, 8, 15, and 22
11:00 a.m.–5:00 p.m.
Kaufmann and Linder Theaters
Free with Museum admission

This program will explore four major "pinnacles" of the civil rights movement that took place in 1963: Martin Luther King, Jr.'s famous open letter from the Birmingham city jail; the James Baldwin–Robert Kennedy meeting attended by Lorraine Hansberry, Harry Belafonte, and Lena Horne; the assassination of civil rights leader Medgar Evers; and the bombing of a Birmingham, Alabama, church that resulted in the deaths of four young girls. Through documentary films, roundtable discussions, spoken word, poetry, movement and dance, and live musical performances, this explosive period in American history will be remembered and honored.

To receive a flyer with details on Black History Month programs, visit www.amnh.org/blackhistory or call 212-769-5315 after January 15.

The American Museum of Natural History wishes to thank the May and Samuel Rudin Family Foundation, Inc., the Tolan Family, the family of Frederick H. Leonhardt, and The Andrew W. Mellon Foundation for their support of these programs.

A Groundbreaking Birthday Party!

Birthday excitement registers a 10 on the Richter scale at our Global Mysteries Party. Guests encounter a simulated earthquake, witness a volcanic eruption, and learn about weather and climate. As Chief Weatherperson, the birthday child heads this study of Earth—and the forecast definitely calls for fun.

Linda Kaye's Partymakers brings its winning combination of education and entertainment to the AMNH with four exciting theme parties: **Dinosaur Discovery, Global Mysteries, Cosmic Blastoff,** and **Safari Adventure.** Parties are tailored for children ages four and up, and are available seven days a week as a benefit to Contributor and higher-level Museum Members.

For more information and to request a date see our online brochure at www.partymakers.com or call Linda Kaye's Partymakers at 212-288-7112.

rotunda

ISSN 0194-6110
USPS Permit #472-650
Vol. 28, No. 1, January/February 2003

Lewis W. Bernard, *Chairman*
Ellen V. Futter, *President*
Lynn DeBow, *Senior Vice President for Development and Membership*
Rosemary Caulk, *Director of Membership*

Rotunda is published bimonthly, except for a combined issue in July/August/September and a single issue in December, by the Membership Office of the American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192. Phone: 212-769-5606. Web address: www.amnh.org. Museum Membership of $45 per year and up includes a subscription to *Rotunda*.
©2002 American Museum of Natural History.
Periodical postage paid at New York, NY, and at additional mailing offices. Postmaster: Please send address changes to *Rotunda*, Membership Office, AMNH, at the above address.
Printed in the USA.

Advance tickets may be purchased online at **www.amnh.org** or by calling **212-769-5200.** A service charge may apply.

The First Europeans: Treasures from the Hills

Ian Tattersall is Curator in the Division of Anthropology and author of many books on human evolution including *The Fossil Trail: How We Know What We Think We Know About Human Evolution*, *Becoming Human: Evolution and Human Uniqueness*, and, most recently, *The Monkey in the Mirror: Essays on the Science of What Makes Us Human*.

He spoke with *Rotunda* about the exhibition *The First Europeans: Treasures from the Hills of Atapuerca*, of which he is cocurator.

Curator Ian Tattersall in his Museum office | D. Finnin/AMNH

Q: What makes this exhibition so important?

This is the first time outside Spain that this extraordinary material that documents the very earliest attempt by human beings to occupy Europe has been on display. And it's also the first time that the later fossils from the extraordinary locality called the "Pit of the Bones" will ever be seen in this hemisphere. So it's a very exciting opportunity for our New York audience to see this material.

There are two sites at Atapuerca. One is literally a hole in the ground that's filled with human bones that are thought to be about 400,000 years old. This is the Sima de los Huesos site, or the Pit of the Bones. There is another site, only half a mile away called the Gran Dolina. At the Dolina, a cave occupation site was sliced through by a railroad cutting at the end of the 19th century. An enormous sequence of archaeological deposits was exposed in the vertical side of the cutting. And low down in that sequence were found human bones that are about 800,000 years old, twice as old as the other hominids at the Sima. It's just pure coincidence that these two extraordinary sites are so close to each other.

Q: You mentioned the Pit of the Bones site. Why is it so unusual and intriguing?

It's an extraordinary concentration of human fossils. Human fossils are not that common. We have a pretty good fossil record for a mammal, but human fossils are still very hard to find and this particular site is the most astonishing concentration of human fossils than has been found anywhere in the world. The excavators here are the only people who can decide how many hominid fossils they want to find in a field season, go out, find them, and then stop working and go home again. It's an astonishing thing. And it's still producing at that same rate.

Hellish conditions, by the way. Absolutely hellish, horrible, cramped, at the bottom of this shaft in the ground. You have to walk 700 yards into a cave through dark passages in the pitch dark and over a rough floor. And then you have to descend 50 feet vertically down a shaft in the dark 'til you come to a slope that leads down even further into the cavity where these bones were collected.

Q: Not for the claustrophic?

Not for the claustrophobic at all, no. Indeed, the dreadful conditions are the reason why nobody knows what those bones were doing in there. The other bones in the pit are mostly cave bear. And if they're not cave bear and they're not hominids, they're carnivores of one sort or another. It's plausible that since cave bears naturally went into caves to hibernate, some of them fell into this hole in the ground, and died. And it's possible that some of the smaller carnivores might have been attracted there by the stench of decaying cave bear corpses and have suffered the same fate. But what hominids would have been doing in the cave in the first place is anybody's guess. And nobody knows how long it took this concentration of broken bones to accumulate. But the best guess of the investigators of the site is that the bodies were thrown in there by other humans.

# of Atapuerca

Interview with Curator Ian Tattersall

Q: And this is where we find evidence of cannibalism?

The bones that show evidence of cannibalism are the ones from the 800,000-year-old site, the Gran Dolina. They're fragmentary, just like the animals bones that are also found at this occupation site, and they are broken up in exactly the same way. They also bear cut marks left by stone tools that are just like the cut marks that are found on the animal bones. Evidently the humans there treated human bones exactly the same way that they treated the animal bones. And if they were eating the animals then probably they were eating the humans as well. But you could never know for sure, without catching them in the act.

Q: What other material will be presented in the exhibition?

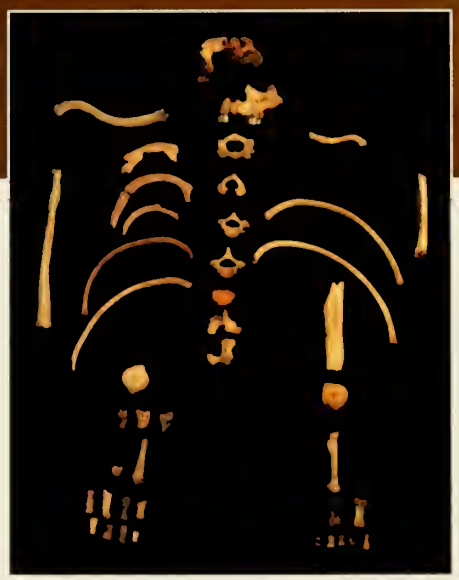
We're going to have the first tool ever found in the Sima on display. It hasn't been described yet, it's a totally new discovery. The Gran Dolina part of the site, that's the occupation site, has a number of levels where humans actually lived and carried out their daily life in the past so you have animal bones and you have human bones and you have stone tools. But a pit where people clearly never lived, a pit in which bodies may have been disposed of deliberately, is not a place where you'd necessarily expect to find tools. But miraculously there is one tool, and quite a good-looking tool, made out of a rosy quartz, that has been found in there and that's going to be on display.

The Gran Dolina site | ©1997 Javier Trueba

And then we're going to present the context for the Atapuerca material, which is basically from two sites, 800,000 years old and 400,000 years old. So we'll have an introductory section that discusses where the Atapuerca hominids came from. We will discuss how humans came out of Africa, plus we'll have the very earliest occupation evidence in Europe, which happens to come from the Republic of Georgia, in the Caucasus. And then at the end of the exhibition we'll look at what happened after the time of the Sima. We'll talk about the Neanderthals, a closely related species that took over the European landscape after the Sima people were defunct. And we'll see how the Neanderthals were ultimately displaced by incoming Cro Magnon *Homo sapiens* about 30,000 to 40,000 years ago. So we'll complete the story on both ends so we can give the visitors some kind of a perspective on where this amazing evidence from Atapuerca fits into the bigger picture of human evolution.

Q: What do the Atapuerca hominids teach us about ourselves or about what it means to be human?

What it mainly teaches us is what a special phenomenon *Homo sapiens* is. *Homo sapiens* is not simply an extrapolation of what came before.



A partial composite skeleton assembled from the remains of several Homo antecessor *individuals from the Gran Dolina site* | ©1999 Javier Trueba

There's something qualitatively different about *Homo sapiens* compared to any previous hominid species. I think it's important to understand that we weren't gradually burnished by evolution to do what we do superbly well. We are more like an accidental product that happens to have all these new cognitive capacities. These qualities did not come into existence *for* anything, they haven't been fine-tuned for anything, they're just abilities we happen to have. And we're still exploring the ways in which they can be used.

The First Europeans: Treasures from the Hills of Atapuerca

January 11–April 13, 2003

The First Europeans will reveal the mysteries of ancient humans in Western Europe through exquisitely preserved hominid and animal fossils—some up to one million years old—found in the hills of Atapuerca in the Spanish region of Castilla y León. This remarkable exhibition provides Americans their first-ever glimpse of these "first Europeans," and explores what their existence teaches us about what it means to be human today.

Co-organized by the American Museum of Natural History and Junta de Castilla y León.

Science at the Museum

New scientific discoveries aren't necessarily made during expeditions to exotic locations—a recent one was made in the Museum's "back yard!" Central Park is home to a species of centipede never before seen, reportedly the first new species discovered there in over 100 years.

The Metropolitan Biodiversity Program of the Museum's Center for Biodiversity and Conservation, which promotes local research and education projects, was asked by the Central Park Convervancy to do a survey to help determine what types of organisms live in the Park's leaf litter as part of the woodlands restoration efforts.

Leaf litter is a layer of fallen leaves, twigs, soil, etc. If left unchecked, the accumulation of leaf litter could eventually bury the forests. Tiny invertebrates are crucial to the breakdown of the leaf litter, and are incredibly numerous—it is estimated that there are 50,000 springtails (just one type of leaf litter animal) in one square yard of leaf litter!

Fieldwork for the survey was easy—Museum scientists merely strolled across the street and brought piles of leaf litter back to the Museum to separate the many miniscule organisms from the plant debris and to sort the organisms.

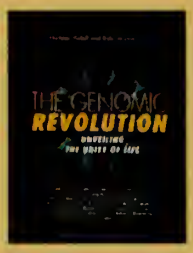
A number of specimens could not be identified and were sent to experts at other institutions for further study. Centipedes and millipedes were sent to Richard L. Hoffman, curator of invertebrates at the Virginia Museum of Natural History. Several specimens of one he could not identify were sent to colleagues in Italy, who determined that the centipede was an entirely new genus and species, and they named it after him: *Nannarrup hoffmani*.

Magnified image of Nannarrup hoffmani | Renzo Mazzaro

Nannarrup hoffmani is one of the smallest centipedes, averaging less than half an inch in length, and despite its diminutive size, has an astonishing 41 pairs of legs. (Centipedes do not necessarily have 100 legs—they have one pair of legs per body segment.) Like all other centipedes, it is a voracious predator, killing and eating any other animal it can get its tiny jaws around.

It is quite common for scientists to find new species of invertebrates in wilderness areas throughout the world. But the discovery of *Nannarrup hoffmani* in the heart of New York City is a reminder that conservation efforts can and should start at home.

An illustrated guide, *Life in the Leaf Litter*, is available on the CBC's Web site at research.amnh.org/biodiversity/.



The Genomic Revolution: Unveiling the Unity of Life
Michael Yudell and Rob DeSalle, Editors
Foreword by Ellen V. Futter

Now available in The Museum Shop for $27.95. Members' discount applies.

How different are we from one another and from all other living creatures? Is there such a thing as a disease gene? What are the potential risks of genetically modified food?

The Genomic Revolution: Unveiling the Unity of Life, published by Joseph Henry Press in association with the American Museum of Natural History, answers these questions and takes readers on a journey through this controversial and fascinating new field.

The Genomic Revolution brings together the presentations made at the Museum's groundbreaking fall 2000 conference, *Sequencing the Human Genome: New Frontiers in Science and Technology*.

Represented are some of the world's leading experts in the field, including Nobel laureate Harold Varmus, Leroy Hood, Mary Jeanne Kreek, Daniel Kevles, and Craig Venter.

Timely, challenging, and important, *The Genomic Revolution* speaks in straightforward language to anyone who wonders why we are the way we are. It spans the facts, promise, and potential pitfalls of a field moving so quickly that its achievements may alternately delight and trouble, but almost always surprise.

Michael Yudell is a research fellow in the Museum's Molecular Laboratories. Rob DeSalle is Curator in the Museum's Division of Invertebrate Zoology, Codirector of the Molecular Laboratories, and curated *The Genomic Revolution* and *Epidemic! The World of Infectious Disease*.

Members' Programs

SPECIAL PROGRAMS

Special Collections: A Museum within a Museum

Part I: Lecture
Thursday, February 6 ML020603
7:00 p.m.
Kaufmann Theater

Part II: Behind-the-Scenes Tour
Thursday, February 13 MB021303
6:30, 7:00, or 7:30 p.m.
$40 for two-part program

The Museum Research Library's Special Collections is the repository for archival materials relating to the history of the Museum. The manuscript collections include personal papers, field notes, and sketches by notable Museum scientists. The Photograph Collection houses more than one million images, and the Film Collection, approximately 5,000 items. The 3,000 items in the Art and Memorabilia Collection include a sweater worn by Roy Chapman Andrews.

Join Barbara Mathé, Museum Archivist and Head of Library Special Collections, and Matthew Pavlick, Media Assets Archivist, for a two-part presentation. Mathé will discuss the Film Collection and show clips from a number of rare films. Return for a behind-the-scenes tour with Mathé and Pavlick to view items that hold the secrets to the Museum's past.

Minute Geometry: Form and Function of Botanical Design

Thursday, February 25 MK022503
6:00 p.m.
Rose Center Classroom
$25
Limited to 25 adults

Explore the inner beauty of plants using a microscope and other tools while learning about the connections between form and function in the plant kingdom. This interactive workshop will investigate plant anatomy and physiology from both artistic and scientific perspectives and will include a brief overview of plant diversity. A sketchpad is recommended. Amy O'Donnell, Senior Museum Instructor, Department of Education, leads this workshop.

Shrines

Thursday, March 27 MK032303
6:00–9:00 p.m.
Rose Center Classroom
$35 (includes materials)
Limited to 25 adults

Create your own sacred shrine celebrating your ancestors or in homage to nature. Participants draw upon the art of the Museum's renowned dioramas and take inspiration from anthropological and ethnographic objects in the collection to create their own altars. Pamela Popeson, educator and former Director of the Museum's Fossil Reproduction Department, leads this workshop. Participants are encouraged to bring their own photographs and other objects to personalize their shrines.

LECTURE

The Empty Oceans

Tuesday, March 18 ML031803
7:00 p.m.
Kaufmann Theater
$10 Members; $12 Non-Members

The creatures of the sea are disappearing at an alarming rate. Populations of cod, bluefin tuna, and Chilean sea bass are seriously depleted. The sea otter, which has the most luxurious fur in the world, is in serious trouble, and numerous species of whales and dolphins are listed as endangered. Half of the world's coral reefs are dead or dying. Is it too late to save the Earth's dwindling marine resources? In his forthcoming book, *The Empty Oceans*, Richard Ellis addresses the fate of the ocean's wildlife.

Richard Ellis | Stephanie Guest

Ellis, a Research Associate at the Museum, is the author of fourteen books, including *Men and Whales*, *Great White Shark*, *Imagining Atlantis*, and *The Search for the Giant Squid*.

EXPEDITIONS

Glorious Gemstones

Saturday, February 22 MW021503
10:00 a.m.
$25

The art of cutting gemstones takes years of training and requires a tremendous depth of knowledge in order to transform stones in the rough into beautiful specimens that dazzle the eye. This expedition begins at the Museum with a tour of the Morgan Memorial Hall of Gems to view some of the finest stones in the world. The journey continues in midtown Manhattan with a rare behind-the-scenes tour of a gemstone cutting facility. Norman Rothwell, Museum Volunteer and mineral enthusiast, guides this trip.

Tsavorite, a type of garnet, from eastern Africa | Harold and Erica Van Pelt

A snowy egret | AMNH Library

WEEKEND EXPEDITIONS

Spring Migration in Cape May

Friday, April 25–
Sunday, April 27 MO042503

Cape May, New Jersey is a paradise for bird-watchers. Diverse habitats, such as salt marshes, rolling sand dunes, and various coastal forests, are key to providing birders the opportunity to see many different species in a single day. Join Paul Sweet, Collections Manager in the Department of Ornithology, to explore Cape May, Brigantine National Wildlife Refuge, and other birding hot spots in southern New Jersey.

After observing the magnificence of nature, enjoy the evening in our nation's oldest seaside resort, Cape May. Its superbly restored Victorian architecture has made it the only entire city designated as a National Historic Landmark.

$325, double occupancy; $115, single supplement. Includes transportation by private chartered motorcoach, and two nights accommodation at the beachfront Hotel Macomber. Meals not included.

Programs are available to Members only, unless a non-Members price is given.

Iroquois Heartland

Friday, May 23–
Sunday May 25 MO052303

The Iroquois "heartland," located at the eastern edge of New York's scenic Mohawk Valley and Catskill Mountains, is steeped in Native American tradition. This excursion will begin with a visit to the New York State Museum to explore their recreation of a Mohawk-Iroquois village, followed by attending the Iroquois Museum's Annual Spring Festival showcasing traditional music and dance and an Iroquois art market. The final stop will be the Kanatsiohareke Mohawk community, where a tribal representative will lead a walking tour of their lands. This weekend will provide a rare opportunity to learn about the resurgence of traditional practice in modern American Indian communities.

Susan Dublin, an archaeologist formerly with the Museum's Anthropology Department, will provide expertise and guidance for a richer understanding of the history of the Iroquois peoples.

1709 portrait of a Mohawk chief | AMNH Library

$425, double occupancy; $140, single supplement. Includes transportation by private chartered motorcoach, and two nights accommodation at the Best Western Inn & Suites in Cooperstown. Meals not included.

For further details on either of the weekend trips, please call Autumn Payne at 212-313-7607.

CHILDREN'S PROGRAMS

Little Birds That Fly Backwards

Saturday, February 8 MC020803
10:30 a.m.–12:00 noon
1:30–3:00 p.m.
(Ages 6 and 7)
Rose Center Classroom
$25

Contrary to myth, hummingbirds do not hitch rides on geese or other larger birds. What makes them remarkable is the incredible speed at which their wings beat, enabling them to hover and even fly backwards. Join Arthur Horan of the Department of Education, and learn about this fascinating and bold bird that sips nectar with its unique long, straw-like beak. Children will make a replica of a hummingbird nest, complete with eggs, to take home.

Mysteries of Mesoamerica

Sunday, February 9 MC020903
10:30 a.m.–12:00 noon (Ages 5–7)
1:30–3:00 p.m. (Ages 8 and 9)
$25

Many people revere ancient Mesoamerica as a place of mystery. Get the facts by traveling through the Hall of Mexico and Central America to learn about the peoples who kept an astronomical calendar, played a ballgame using a rubber ball, and who grew corn as their primary food staple. Children will then return to the classroom to make some of the traditional objects on display. Monica Hidalgo, educator, leads this workshop.

Andrew Lost

Saturday, March 15 ML031503
2:00 p.m.
Linder Theater
Members: $10, adults; $5, children
Non-Members: $12, adults; $7, children

Meet J. C. Greenberg, author of the exciting Andrew Lost series of chapter books for children that combine humor, science, and adventure. Young readers will discover a special brand of "gross" science kids love, as Greenberg relates real scientific phenomena to the main character, Andrew, and his adventures. The Andrew Lost series is appropriate for readers in grades two through four.

FREE HALL TOURS

Hidden Stories of the AMNH

Saturday, February 22, and Sunday, February 23 MT0203
1:00 p.m.
Free (Registration required)

Join Museum Tour Guide Christian Waters to hear some of the secret stories and unbelievable legends behind the true history of the Museum, including how Carl Akeley, creator of the renowned Hall of African Mammals, once killed a leopard with his bare hands.

Shamans: Magicians? Priests? Healers?

Saturday, March 8, and Sunday, March 9 MT0303
4:00 p.m.
Free (Registration required)

Shamanism appears in cultures around the world. Shamans—mediators between the human and spirit worlds—employ magic and ritual to heal the sick and predict and influence the future. What are their roles in various cultures? How does their practice differ from that of other spiritualists and healers? Join Museum Tour Guide Donna Walcavage to learn about journeys of the soul and the ritual objects used by shamans in their quest for knowledge, power, and healing.

BEHIND-THE-SCENES TOURS

Behind the Scenes in the Planetarium

Tuesday, March 11 MB031103
6:30, 7:00, or 7:30 p.m.
$25

The Museum's spectacular rebuilt Hayden Planetarium features a customized, one-of-a-kind Zeiss Star Projector. Brian Abbott, Manager of the Digital Universe Project, will redefine your sense of home with a tour beyond our solar system and even the Milky Way via the three dimensional "atlas" of our universe that his team is constructing.

Next, Orsola De Marco and David Zurek, scientists in the Department of Astrophysics, will discuss current research at the Museum and will give you a sense of the vast quantity of astrophysical data the department has acquired. The tour will conclude at the optics lab, where an instrument is under development that will image newly discovered extrasolar planets (i.e., planets orbiting stars other than our sun).

D. Finnin/AMNH

PREVIOUSLY LISTED

City of Stars

Tuesday, January 14 ML011403
7:00 p.m.
Kaufmann Theater
$10 Members; $12 Non-Members

Join Neil deGrasse Tyson, astrophysicist and Frederick P. Rose Director of the Hayden Planetarium, for a slide tour of all that is astronomical in New York City. Inspired by his work for *Natural History* magazine's special issue "City of Stars," Tyson will bring to life the monuments, sculptures, and store fronts of New York City that enable New Yorkers to remain within arm's reach of the cosmos, without even looking up.

Analyzing Artifacts

Thursday, January 16 MK011603
6:00 p.m.
Rose Center Classroom
$25, limited to 25 adults

Archaeologists study humankind via artifacts—objects made, modified, or used by humans—which can reveal innumerable details about individuals and entire cultures. In this hands-on workshop, participants will learn the basic analytical techniques employed both in the field and in the lab to gain insight into how artifacts can illuminate previously unknown cultural practices and customs. Edith Gonzalez de Scollard, Supervising Museum Instructor, Department of Education, leads this workshop.

For tickets, call 212-769-5200 or visit www.amnh.org. All Members' programs require advance registration.

AMNH Kids' Culinary Council

The first year of AMNH's Kids' Culinary Council has been an overwhelming success. Congratulations to dedicated KCC members Timothy Chang, Ari Cohen, Jeremy Fuchs, Armand Gomez, Allen Kato, Elizabeth Sarapata, Elizabeth Sharpe, and Rosalie Shaw for their completion of the 2002 term. Over the course of 12 months, the eight gourmets flexed their culinary muscles and learned the workings of a professional kitchen, created menus for special exhibitions, and even got a taste of what's ahead in the world of gastronomy.

Special activities of the 2002 term included creating a special hot dog recipe and attending the Fancy Feast Show at the Jacob K. Javits Center. The Council finished out the year with a challenge for the members to create a dessert pertaining to the Museum. Each child created an amazing treat—from a prehistoric dinosaur site to the 1.7-million-year-old "Turkana Boy." Each member was awarded a Certificate of Excellence for his or her hard work and commitment.

The 2002 Kids' Culinary Council in the kitchen with Chef Frank Polchinski | C. Banicki

AMNH Kids' Culinary Council CONTEST

Calling all cooks! Restaurant Associates and the Membership Department are now accepting submissions for this year's AMNH Kids' Culinary Council. Children of AMNH Members, ages 8 to 13, with a passion for cooking are invited to submit a recipe inspired by the Museum. Dish ideas can range from dinos to diamonds and everything in between. ***Use your imagination!*** A panel of judges will review all submissions and select the winners based on the recipe's creativity, presentation, and relevance to AMNH halls.

Winners serve a one-year term, meet with the Executive Chef four times, and will be invited into the main kitchen of the Museum Food Court (voted best Kid's Café by *New York Magazine*) to help oversee food preparations, conduct tastings, and plan menus. ***Get a head start on your culinary career!***

Members of the Kid's Culinary Council will also receive: $25 Space Dollars good for purchases in the Museum Food Court; a $15 Museum Shop Gift Certificate; and a Kid's Culinary Council apron.

Recipes must be received no later than March 1, 2003, and be accompanied by a photograph of the prepared dish. Kids who've already served on the Council may not enter. Winners will be contacted by March 10, 2003. Entries, along with name, age, Membership number, address, and daytime telephone number should be mailed to:

American Museum of Natural History
Membership Department
79th Street at Central Park West
New York, NY 10024

Allen Kato preparing his winning recipe, Megalosaur Meatloaf | A. Payne/AMNH

Help Us Surround the Whale with Beautiful Ocean Friends!

Be a part of the exciting restoration of the Paul and Irma Milstein Hall of Ocean Life.

In January 2002, thanks to a generous gift from Irma and Paul Milstein, the beloved Hall of Ocean Life closed for a major renovation. Through cutting-edge scientific research and exhibition technology, the Milstein Hall of Ocean Life is being transformed into an immersive marine environment that will educate visitors of all ages about the ocean's vital role in the life of our planet.

A very important part of the rejuvenation of this spectacular hall is the restoration of 14 historic dioramas and the creation of eight new marine ecosystem niches on the mezzanine level. You can help to bring these windows into the wide range of marine habitats and their inhabitants to the children and adults of New York City and the world.

Individuals, corporations, and foundations who help support these educational masterpieces will link their names forever with this beautiful hall and the American Museum of Natural History.

Please call 212-769-5207 for more information.

Explore Your World!

Have the world at your fingertips with this desktop gyroscopic globe, able to rotate on 2 axes. 4 3/8" diameter. Available in Blue or Antique. An AMNH exclusive.

American Museum of Natural History

A Gifted Idea.

For more information, please call 212-313-7056; www.amnh.org

General Information

HOURS
Museum: Daily, 10:00 a.m.–5:45 p.m.
The Rose Center remains open until 8:45 p.m. on Friday. The Museum is closed Thanksgiving and Christmas.
Space Show: Every half hour, Sunday–Thursday and Saturday, 10:30 a.m.–4:30 p.m., Friday, 10:30 a.m.–7:30 p.m.
Research Library: Tuesday–Friday, 11:00 a.m. –4:00 p.m.
Hours are subject to change.

ENTRANCES
During Museum hours, visitors may enter through the subway (lower level), Central Park West at 79th Street (second floor), and the Rose Center/81st Street entrances. The 77th Street and Weston Pavilion/Columbus Avenue entrances are closed until further notice.

TRANSPORTATION AND PARKING
Subway: B (weekdays) or C to 81st Street; 1 or 9 to 79th Street
Bus: M7, M10, M11, or M104 to 79th Street; M79 to Central Park West
Parking Garage: Open daily, 8:00 a.m.–11:00 p.m.; enter from West 81st Street. Members receive a discounted rate of $10 if entering after 4:00 p.m. To receive this rate, you must have your parking ticket validated at the Security Desk (first floor, Central Park West entrance). For more information, call 212-313-7278.

FOOD SERVICE
Museum Food Court: Daily, 11:00 a.m.–4:45 p.m. (*lower level*)
Café on 4: Saturday and Sunday, 11:00 a.m.–4:45 p.m (*fourth floor*)
Café 77: Daily, 11:00 a.m.–4:45 p.m (*first floor*)
Hours are subject to change.

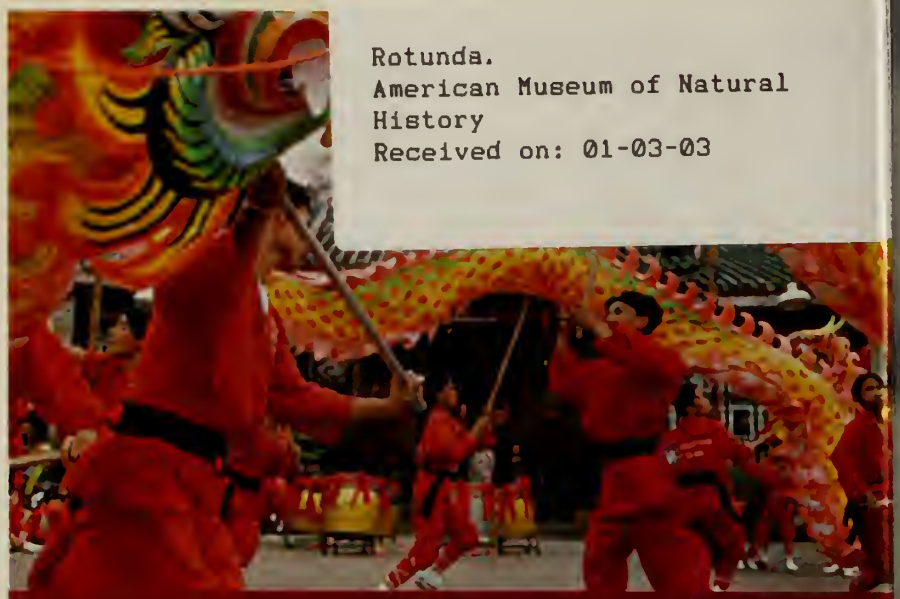
MUSEUM SHOP
The following Museum Shops are open during regular Museum hours:
Main Shop (*first and second floors*)
Dinostore and More (*fourth floor*)
77th Street Shop (*first floor*)
Planetarium Shop (*Rose Center, lower level*)
Satellite Shop (*Rose Center, first floor*)
Einstein Shop (*fourth floor*)
Butterflies Shop (*second floor*)
Atapuerca Shop (*third floor*)

PHONE NUMBERS

Museum Information	212-769-5100
Membership Office	212-769-5606
Planetarium Information	212-769-5900
Member Birthday Parties	212-769-5606
Education Department	212-769-5310
Planned Giving Office	212-769-5119
Discovery Tours	212-769-5700
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
Web Site	www.amnh.org

AMNH eNotes delivers the latest information on Museum programs and events to you via email. Visit www.amnh.org to sign up today!

AMERICAN MUSEUM OF NATURAL HISTORY



Rotunda.
American Museum of Natural History
Received on: 01-03-03

UPCOMING! Vietnam: Journeys of Body, Mind, and Spirit *opens at the Museum March 15, 2003.* | Ellen Kaplowitz

Membership Department
Central Park West at 79th Street
New York, New York 10024-5192
www.amnh.org

rotunda

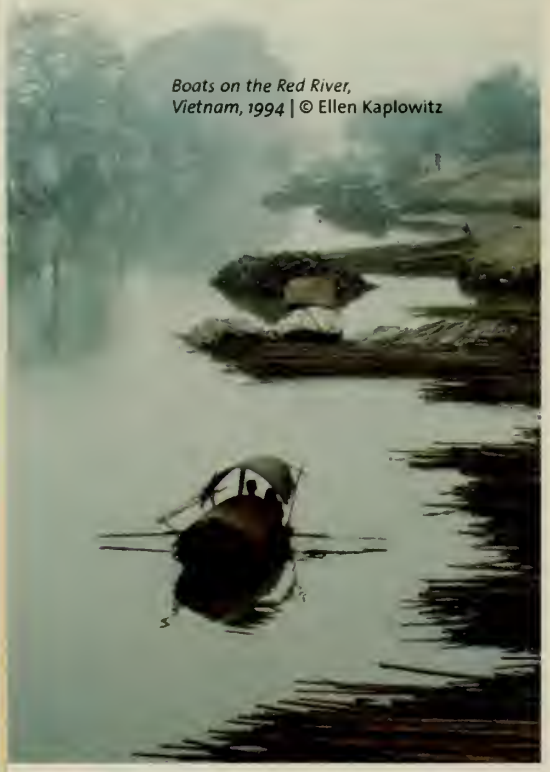
VOL. 28 NO. 2 MARCH/APRIL 2003

MEMBERS' NEWSLETTER

QH70
U52
N5
v. 28
no. 2
Mar-Apr
2003

AMERICAN MUSEUM OF NATURAL HISTORY

Vietnam: Journeys of Body, Mind & Spirit



Boats on the Red River, Vietnam, 1994 | © Ellen Kaplowitz

A water puppet performance honors visiting gods; flowering orange trees announce the arrival of the New Year; a brightly colored dragon costume snakes forward in a festival procession. This is Vietnam, a country in motion. Contemporary life in this vibrant nation has been somewhat of an enigma to many in the United States, but curators at the American Museum of Natural History and the Vietnamese Museum of Ethnology in Hanoi hope that will change. The landmark exhibition, *Vietnam: Journeys of Body, Mind & Spirit* opens in New York on March 15. This historic exhibition, the first comprehensive presentation on contemporary Vietnamese life on view in the United States, examines Vietnamese life, culture, and community in the early 21st century.

Laurel Kendall, Curator of Asian Ethnographic Collections at the American Museum of Natural History, and Nguyen Van Huy, Director of the Vietnam Museum of Ethnology, are jointly curating the exhibition.

The exhibition suggests a meandering road that journeys might follow in contemporary Vietnam—physical, spiritual, symbolic, and temporal journeys might all be experienced. "As the title suggests, we are presenting journeys in a broad sense," says Kendall. "Some are literal, such as people crowding onto buses to go home for the New Year, or the journey of ceramics from village kiln to marketplace in bicycle baskets. Others are spiritual, such as gods being depicted in festival processions, spirits of ancestors traveling home for holidays, and ritual events such as weddings and funerals."

The exhibition documents such journeys through a wide selection of objects, photographs, and video footage of daily life in Vietnam. Most of the nearly 300 items exhibited are produced and commonly used in Vietnam today. They include handmade textiles, ceramics, wooden sculptures, lacquer festival paraphernalia, and a variety of lanterns, toys, and votive objects imaginatively fashioned out of paper and bamboo. Some of the items displayed reflect changing times—votive paper motorbikes and VCRs, for instance, join traditional money and clothing items in being ceremonially burned, so that spirits of the dead can use these objects. Ethnic textiles are reconfigured into products for the tourist trade. In the exhibition, culture is presented as a dynamic process that responds to changes and incorporates new material.

Shot by Vietnam Museum of Ethnology staff in the communities where they conduct field research, video footage offers an intimate portrayal of their own families and neighbors.

The exhibition, primarily drawn from the collections of the Vietnam Museum of Ethnology, will reflect Vietnam's multi-ethnic population. "From an ethnographic perspective, the exhibition will present the daily life of Vietnamese people in the north, the center, and the south of the country; in cities as well as the countryside; in the delta as well as the mountains and highlands," says Huy. "It will show that Vietnam is a diversified culture of more than 50 ethnic groups."

While celebrating the vibrancy and richness of Vietnamese culture, the

These clay toys portray dragon, snake, and horse zodiac symbols for children born after the lunar New Year in 2000, 2001, and 2002, respectively. | © C. Chesek/AMNH

These small paintings are worn as masks during Yao Initiation rituals. | ©C. Chesek/AMNH

exhibition will touch upon the cultural response to the war. The exhibition will show how traditional practices continue to help the Vietnamese people to cope with the horrors of war and the grief of loss.

The exhibition marks an unprecedented collaboration between American and Vietnamese institutions. A shared mission of fostering cultural understanding brought the American Museum of Natural History and the Vietnam Museum of Ethnology together in a partnership that goes far beyond the exhibition itself. The museums were initially linked through conservation workshops, followed by the scientific fieldwork that the AMNH's Center for Biodiversity and Conservation has conducted in Vietnam. The partnership grew with the generous sharing of expertise, personnel, and perspectives—including the exchange of interns who spend months working at their sister institution.

The collaboration itself can be seen as a journey—of two countries with a complex and difficult past moving toward a future of understanding and friendship. According to Kendall, "An encounter with Vietnam in the 21st century is an important step toward healing."

Vietnam: Journeys of Body, Mind & Spirit
March 15, 2003–January 4, 2004
Gallery 77

Organized by the American Museum of Natural History, New York, and the Vietnam Museum of Ethnology, Hanoi. This exhibition and related programs are made possible by the philanthropic leadership of the **Freeman Foundation.** *Additional generous funding provided by the Ford Foundation for the collaboration between the American Museum of Natural History and the Vietnam Museum of Ethnology. Also supported by the Asian Cultural Council. Planning grant provided by the National Endowment for the Humanities.*

Also, don't miss:

Biodiversity of Vietnam
Opens March 20
Akeley Gallery, second floor

Photographs highlight Vietnam's remarkable diversity of plants and animals.

This exhibition is made possible by the generosity of the Arthur Ross Foundation.

Vietnamese Marketplace
First floor

Experience the tastes and sights of a traditional Vietnamese marketplace!

Authentic Vietnamese Banquet... For Members Only!

Friday, March 14
Choose one of three seatings:
5:30, 7:00, or 8:30 p.m.
$45 Members; $18 Members' children under 12

Celebrate the tastes of Vietnam! In conjunction with the exhibition *Vietnam: Journeys of Body, Mind & Spirit*, Restaurant Associates presents a traditional Vietnamese buffet for Members. Bruce Barnes, Restaurant Associates Executive Chef at the American Museum of Natural History, will cook up a delicious feast of authentically prepared and elegantly presented specialty dishes such as asparagus and crab meat soup, spring rolls, shrimp on sugar cane with spicy peanut sauce, lemon grass beef, and steamed whole snapper with tiger lily buds, to name just a few. The sumptuous menu will be accompanied by chilled sake, Saigon beer, jasmine tea, and Vietnamese coffee.

Please call 212-769-5200 to reserve your place now.

This 20th-century sculpture of a monkey king, who presides over the Gai Rai dead in the land of the ancestors, is customarily placed beside a mortuary hut. | ©C. Chesek/AMNH

Science at the Museum

James Lui

CBC Spring Symposium Addresses Sustainable Tourism

Much of the world's biodiversity is located in developing tropical countries, which have become increasingly popular as tourist destinations. While the traveling public's growing interest in visiting these unique places can bring with it much-needed revenue and jobs, as well as increased incentive to conserve natural areas, many scientists are concerned that tourism-related activities will result in serious consequences for threatened ecosystems.

Increased pollution; overuse of natural resources; the introduction of invasive species; disruption of migration, feeding, and breeding patterns; habitat transformation; and even harassment of animals are among the possible—and potentially irreversible—ramifications of nature-based tourism. There is also urgent concern about protecting a region's cultural integrity, which can be enormously affected by the influx of visitors and increased industry.

Tourism is now the world's largest industry, and nature-based and cultural travel is widely considered its fastest growing segment. While such travel now accounts for an estimated $100–200 billion per year worldwide, there is still no universally agreed-upon definition of the word "ecotourism," nor are there standard industry or policy guidelines to minimize its impact on the environment or cultures.

On March 20 and 21, 2003, the Museum's Center for Biodiversity and Conservation (CBC) will address this complex topic during its eighth annual symposium, *Tiger in the Forest: Sustainable Nature-Based Tourism in Southeast Asia*. A key aim of the conference is to develop recommended guidelines for decision makers, tour operators, conservation practitioners, and consumers.

The decision to focus the 2003 symposium on nature-based tourism and its impact on biodiversity conservation grew out of the CBC's long-standing work in Southeast Asia and discussions with colleagues there, specifically those in Cambodia, Lao People's Democratic Republic, Myanmar, Thailand, and Vietnam. In discussing the various factors that affect biodiversity in this region, which harbors a significant proportion of the world's rare and endemic plants and animals, tourism emerged as an important issue.

Tiger in the Forest will provide an important forum for information exchange and partnership-building among biologists, tourism-industry professionals, conservation practitioners, governmental decision makers, and community stakeholders. The conference sessions will focus on discussion of the needs of unique and fragile ecosystems; exploration of the economic and conservation potential of nature-based tourism; case studies of well designed, properly monitored, and sustainable tourism sites; and sharing of cautionary tales of lessons learned. In addition, the symposium will examine what responsible travelers can do—no matter what the destination—to minimize their impact on natural areas and biodiversity.

As an integral part of the conference, participants and high-level dignitaries from each of the five focal countries are traveling to New York to take part in the two days of sessions. Other speakers on the roster represent the United Nations Development Programme; the World Tourism Organization; the World Bank; the Wildlife Conservation Society; World Wildlife Fund; UNESCO; Conservation International; The International Ecotourism Society; the University for Peace; New York University's Tisch Center for Hospitality, Tourism and Travel Administration; Columbia University; and Discovery Tours, the Museum's educational travel program. The symposium is organized by the CBC in collaboration with the Wildlife Conservation Society and World Wildlife Fund.

In 1993, in response to increased threats to biodiversity, the Museum created the CBC to focus its scientific and educational resources on conservation policy and action. As part of its mission to heighten public understanding of biodiversity and to disseminate scientific information, the CBC hosts an annual spring symposium on an issue whose relationship to biodiversity has been little explored.

To learn more about the CBC's projects and publications, including *Tiger in the Forest*, visit research.amnh.org/biodiversity/. Registration is available online or by calling 212-769-5200.

Members' Programs

Rob DeSalle

Mike Yudell

LECTURES

The Genomic Revolution: Unveiling the Unity of Life

Tuesday, April 1 ML040103
7:00 p.m.
Kaufmann Theater
$10 Members; $12 Non-Members

The Human Genome Project has raised many questions regarding social issues, ethics, medical treatment, and more. Michael Yudell and Rob DeSalle, editors of *The Genomic Revolution: Unveiling the Unity of Life*, a new collection of essays by leading experts in genomics, discuss the book that takes readers on a thought-provoking quest from the fundamental ideas about heredity to the ethical implications of the project.

Yudell is a Research Fellow in the Molecular Laboratories. DeSalle is Curator in the Museum's Division of Invertebrates, Codirector of the Molecular Laboratories, and was curator of the landmark 2001 exhibition *The Genomic Revolution*.

Krakatoa: The Day the World Exploded: August 27, 1883

Thursday, April 10 ML041003
7:00 p.m.
Kaufmann Theater
$10 Members; $12 Non-Members

The 1883 eruption of the Indonesian volcano Krakatoa was heard over two thousand miles away; caused tsunamis reaching over 40 feet high which killed nearly 40,000 people and destroyed 165 coastal villages; and affected sunsets in the northeastern United States three months later. In his new book, *Krakatoa: The Day the World Exploded: August 27, 1883*, Simon Winchester takes a look at this catastrophic event and its lasting and world-changing effects.

Winchester is an author, journalist, and BBC broadcaster. His numerous books include the best-selling *The Professor and the Madman*.

The Fate of the Mammoth: Fossils, Myth, and History

Tuesday, May 13 ML051303
7:00 p.m.
Kaufmann Theater
$10 Members; $12 Non-Members

Woolly mammoths—with their heavy curved tusks and shaggy brown hair—have captured the imaginations of people around the world for centuries. Remains of these prehistoric animals have played a crucial role in the development of the field of paleontology. Claudine Cohen, author of *The Fate of the Mammoth: Fossils, Myth, and History*, will discuss her research on the history of the science, myth, and popular culture of the mammoth.

Cohen teaches the history of science at the École des Hautes Études en Sciences Sociales in Paris.

BEHIND-THE-SCENES TOURS

Behind the Scenes in Invertebrate Zoology: Insects, Spiders, and Scorpions

Tuesday, April 15 MB041503
6:30, 7:00, or 7:30 p.m.
$25

Scientists estimate that there may be more than 30 million different species of insects—ranging in size from tiny fleas to beetles bigger than a human hand. Go behind the scenes for a rare glimpse of one of the world's largest collections of insects, spiders, and scorpions. Museum scientists in the Division of Invertebrate Zoology will talk about the numbers, habits, and habitats of these ancient and fascinating creatures.

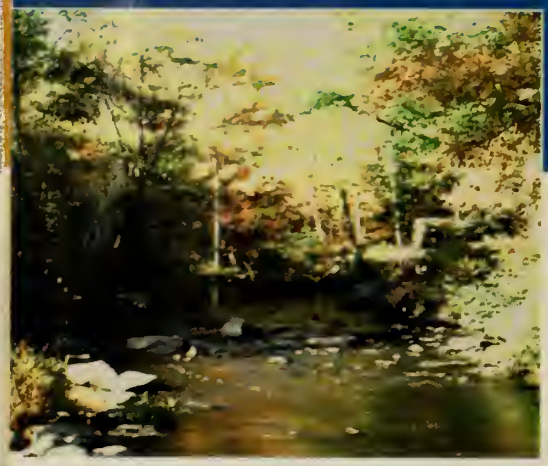
Claudine Cohen | John Foley/Opale

Behind the Scenes in Invertebrate Zoology: Clams, Snails, and Blood-Sucking Leeches

Thursday, May 15 MB051503
6:30, 7:00, or 7:30 p.m.
$25

What possesses some people to devote their careers to studying leeches—animals that suck the blood of their unsuspecting victims? Find out this and much more from scientists in the Museum's Division of Invertebrate Zoology. Learn about leeches, clams, and snails—invertebrates that have changed very little in 400 million years—from those with shells to those without, from the simple to the ornate.

Programs are available to Members only, unless a non-Members price is given.



Virginia Weinland/courtesy of Trailside Nature Museum

Members' Programs continued...

ADULT WORKSHOP

An Introduction to the Evening Sky and Celestial Navigation

Wednesday, April 9 MK040903
6:00 p.m.
Rose Center Classroom
$25
Limited to 25 adults

Tour the heavens, season by season, and construct some of the navigation tools that mariners long ago used to guide their ships to distant shores. Participants will explore past and present celestial navigation techniques employed by sailors and laymen alike. Stephen Brodbar, Planetary and Space Sciences Instructor, leads this workshop.

EXPEDITIONS

Natural and Cultural History of Ward Pound Ridge

Saturday, April 5 MO040503
9:00 a.m.–5:00 p.m.
$65

Ward Pound Ridge Reservation is Westchester County's largest park, featuring diverse terrain and miles of wooded trails. Join Dave Karrmann, biologist and Senior Museum Instructor in the Department of Education, and discover the unique natural history of this area and its effect on local cultural events. Stops will include a visit to the Trailside Nature Museum. Transportation by charter bus is included.

John D. Rockefeller: Art and Nature

Saturday, May 10 MO051003
8:30 a.m.–5:00 p.m.
$100

John D. Rockefeller was born on a farm in upstate New York. Over the course of his life, he gave over half his fortune to various philanthropies, including AMNH. Gain a deeper understanding of his passion for the preservation of nature and art on this expedition, which begins with a private tour of the Rockefeller State Park Preserve, and continues at Kykuit, the Rockefeller estate in the Hudson Valley. Joel Sweimler, Senior Exhibition Developer at the Museum and decorative arts expert, leads this tour. Lunch, admission to Kykuit, and transportation by charter bus is included.

Spring Bird Watching at Jamaica Bay

Saturday, May 17 MW051703
10:00 a.m.–2:00 p.m.
$36

Join Paul Sweet, Collections Manager in the Department of Ornithology, for a birding walk at Jamaica Bay Wildlife Refuge, one of the most important urban wildlife sancturaries in the United States. This visit to the Bay will coincide with the peak of the spring migration of songbirds, including many species of warbler, vireo, tanager, and thrush, which stop at the Refuge en route to northern nesting areas from tropical wintering grounds.

Autumn Payne/AMNH

CHILDREN'S PROGRAMS

Beaks to Feet

Saturday, April 12 MC041203
10:30 a.m.–12:00 noon (Ages 5–7)
1:30–3:00 p.m. (Ages 8 and up)
Rose Center Classroom
$25

Each species of bird has unique adaptations to its own habitat. In this workshop, aspiring young ornithologists will discover how birds' beaks and feet have adapted to aid in their survival. Activities include exploring the Hall of North American Birds and making sketches and models of beaks and feet. Arthur Horan, Department of Education, leads this program.

It *Is* Rocket Science

Part I: Saturday, May 10, 1:30 p.m.
Part II: Sunday, May 18, 10:00 a.m.
MC051003
Ages 8 and up, each child with one adult
$75/pair
Rose Center Classroom

In this fun and constructive workshop, children will build model rockets while learning the fundamentals of aerodynamic forces and the scientific method. Each child will design his or her own rocket and make predictions regarding its performance. After the building session, children will watch as their rockets are launched in Central Park. Stephen Brodbar, Planetary and Space Sciences Instructor, leads this two-part workshop. All materials are included.

Petroglyphs: Carved in Stone

Saturday, May 31 MC053103
10:30 a.m.–12:00 noon (Ages 5–7)
1:30–3:00 p.m. (Ages 8 and up)
$25
Rose Center Classroom

Ancient petroglyphs, or rock carvings, have been found all over the world

and depict such things as animals, family relationships, and hunting scenes. Taking inspiration from ancient cultures of the American Southwest, children create their own carvings. Working with self-hardening clay, they will learn to carve both ancient symbols and images of personal expression. Pamela Popeson, educator and former Director of the Museum's Fossil Reproduction Department, leads this workshop.

FREE HALL TOURS

Variation Is the Spice of Life

Saturday, April 12, or Sunday, April 13
4:00 p.m.
Free (Registration required)

What makes it possible for over 100,000 species of moths to coexist on the same planet? Canvass the Hall of Biodiversity and learn why variation among organisms is one of the key aspects to survival. Museum Tour Guide Norman Rothwell leads this tour.

A snowy egret | AMNH Library

Food for Thought

Saturday, May 3, or Sunday, May 4
4:00 p.m.
Free (Registration required)

A society is shaped by a multitude of influences. Join Museum Tour Guide Judith Freeman and examine how food and fire have contributed to the development of cultural practices.

Richard Ellis | Stephanie Guest

PREVIOUSLY LISTED

Andrew Lost

Saturday, March 15 ML031503
2:00 p.m.
Linder Theater
Members: $10, adults; $5, children
Non-Members: $12, adults; $7, children

Meet J. C. Greenberg, author of the exciting Andrew Lost series, chapter books for children in grades 2 to 4 that combine humor, science, and adventure.

The Empty Ocean

Tuesday, March 18 ML031803
7:00 p.m.
Kaufmann Theater
$10 Members; $12 Non-Members

Is it too late to save the Earth's dwindling marine resources? In his new book, *The Empty Ocean*, Richard Ellis addresses the fate of the ocean's wildlife.

Ellis, a Research Associate at the Museum, is the author of 14 books, including *Men and Whales* and *The Search for the Giant Squid.*

Shrines

Thursday, March 27 MK032303
6:00–9:00 p.m.
Rose Center Classroom
$35 (includes materials)
Limited to 25 adults

Participants draw upon the art of the Museum's renowned dioramas and take inspiration from anthropological objects to create their own shrines celebrating ancestors or in homage to nature. Pamela Popeson, educator and former Director of the Museum's Fossil Reproduction Department, leads this workshop. Bring photographs and other objects to personalize your shrine!

Members' Bird Watching Expedition

Friday, April 25–Sunday, April 27
MO042503

Join Paul Sweet, Collections Manager in the Department of Ornithology, to explore Cape May, Brigantine National Wildlife Refuge, and other birding hot spots in southern New Jersey. After observing the magnificence of nature, enjoy the evening in our nation's oldest seaside resort, Cape May.

$325, double occupancy; $115, single supplement. Includes transportation by private chartered motorcoach, and two nights' accommodation at the beachfront Hotel Macomber. *Meals not included.*

Iroquois Heartland

Friday, May 23–Sunday May 25
MO052303

This excursion to New York's scenic Mohawk Valley and Catskill Mountains will begin at the New York State Museum followed by visits to the Iroquois Museum's Annual Spring Festival and the Kanatsiohareke Mohawk community, where a tribal representative will lead a walking tour of their lands. Susan Dublin, an archaeologist formerly with the Museum's Division of Anthropology, will host the excursion.

$425, double occupancy; $140, single supplement. Includes transportation by private chartered motorcoach, and two nights' accommodation at the Best Western Inn & Suites in Cooperstown. *Meals not included.*

For tickets, call 212-769-5200 or visit www.amnh.org. All Members' programs require advance registration.

General Information

HOURS

Museum: Daily, 10:00 a.m.–5:45 p.m.
The Rose Center remains open until 8:45 p.m. on Friday. The Museum is closed Thanksgiving and Christmas.
Space Show: Every half hour, Sunday–Thursday and Saturday, 10:30 a.m.–4:30 p.m., Friday, 10:30 a.m.–7:30 p.m.
Research Library: Tuesday–Friday, 11:00 a.m. –4:00 p.m.
Hours are subject to change.

ENTRANCES

During Museum hours, visitors may enter through the subway (lower level), Central Park West at 79th Street (second floor), and the Rose Center/81st Street entrances. The 77th Street and Weston Pavilion/Columbus Avenue entrances are closed until further notice.

TRANSPORTATION AND PARKING

Subway: B (weekdays) or C to 81st Street; 1 or 9 to 79th Street
Bus: M7, M10, M11, or M104 to 79th Street; M79 to Central Park West
Parking Garage: Open daily, 8:00 a.m.–11:00 p.m.; enter from West 81st Street. Members receive a discounted rate of $10 if entering after 4:00 p.m. To receive this rate, you must have your parking ticket validated at the Security Desk (first floor, Central Park West entrance). For more information, call 212-313-7278.

FOOD SERVICE

Museum Food Court: Daily, 11:00 a.m.–4:45 p.m. (*lower level*)
Café on 4: Saturday and Sunday, 11:00 a.m.–4:45 p.m (*fourth floor*)
Hours are subject to change.

MUSEUM SHOP

The following Museum Shops are open during regular Museum hours:
Main Shop (*first and second floors*)
Dinostore and More (*fourth floor*)
Planetarium Shop (*Rose Center, lower level*)
Satellite Shop (*Rose Center, first floor*)
Einstein Shop (*fourth floor*)
Butterflies Shop (*second floor*)
Atapuerca Shop (*third floor*)

PHONE NUMBERS

Museum Information	212-769-5100
Membership Office	212-769-5606
Planetarium Information	212-769-5900
Member Birthday Parties	212-769-5606
Education Department	212-769-5310
Planned Giving Office	212-769-5119
Discovery Tours	212-769-5700
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
Web Site	www.amnh.org

AMNH eNotes delivers the latest information on Museum programs and events to you via email. Visit www.amnh.org to sign up today!

AMERICAN MUSEUM OF NATURAL HISTORY

SAVE THE DATE

Members' Preview
of the newly renovat

MILSTEIN HALL OF OCEAN LIFE

Friday, May 16, 2003
6:00–8:30 p.m.

Mark your calendar now!

Rotunda.
American Museum of Natural History
Received on: 03-03-03

Membership Department
Central Park West at 79th Street
New York, New York 10024-5192
www.amnh.org

rotunda

VOL. 28 NO. 3 MAY/JUNE 2003

MEMBERS' NEWSLETTER

QH70
.U52
M5
v. 28
no. 3
May-Jun
2003

AMERICAN MUSEUM OF NATURAL HISTORY

Museum Notes

EXHIBITIONS

Vietnam: Journeys of Body, Mind & Spirit

Through January 4, 2004
Gallery 77

This comprehensive exhibition on Vietnamese life, the first in the United States, presents Vietnamese culture in the early 21st century. As suggested by the title, the visitor is invited to "walk in Vietnamese shoes" and explore daily life among Vietnam's more than 50 ethnic groups. The objects on display, supplemented by photographs and video footage, range from the traditional to the contemporary, and often merge the two, reflecting the dynamic process that has created modern Vietnamese culture.

Organized by the American Museum of Natural History, New York, and the Vietnam Museum of Ethnology, Hanoi. This exhibition and related programs are made possible by the philanthropic leadership of the Freeman Foundation. Additional generous funding provided by the Ford Foundation for the collaboration between the American Museum of Natural History and the Vietnam Museum of Ethnology. Also supported by the Asian Cultural Council. Planning grant provided by the National Endowment for the Humanities.

Discovering Vietnam's Biodiversity

Through January 4, 2004
Akeley Gallery

This exhibition of photographs highlights Vietnam's remarkable diversity of plants and animals and the Museum's Center for Biodiversity and Conservation's ongoing research there.

This exhibition is made possible by the Arthur Ross Foundation and by the National Science Foundation.

Einstein

Through August 10, 2003
Gallery 4

This unprecedented exhibition will profile this extraordinary scientific genius, whose achievements were so substantial and groundbreaking that his name is virtually synonymous with science in the public mind.

Organized by the American Museum of Natural History, New York; The Hebrew University of Jerusalem; and the Skirball Cultural Center, Los Angeles. Einstein *is made possible through the generous support of Jack and Susan Rudin and the Skirball Foundation, and the Corporate Tour Sponsor, TIAA-CREF.*

Villagers carry ceremonial regalia in a festival honoring a local hero. | Pham Van Duong, VME

Einstein Papers Project

Monday, May 19
7:30–9:00 p.m.
LeFrak Theater
$8 Members; $10 Non-Members

A panel discussion on one of the most important scholastic achievements of the 20th century, the publication of Albert Einstein's collected papers, presented in conjunction with a major scholarly conference hosted by the Museum. For more information call 212-769-5200.

The Butterfly Conservatory: Tropical Butterflies Alive in Winter

Through May 26, 2003
Hall of Oceanic Birds

Butterflies returns to the American Museum of Natural History! Now in its fifth year, this highly popular wintertime destination features a rainbow of hundreds of live butterflies flying freely inside a tropical vivarium filled with lush foliage and blooming plants.

The Butterfly Conservatory *is made possible through the generous support of Bernard and Anne Spitzer and Con Edison.*

SPACE SHOWS

The Search for Life: Are We Alone?

This Space Show will whisk you on an incredible journey from the lightless depths of Earth's oceans to newly discovered planets on a quest for worlds that might support life.

The Search for Life: Are We Alone? *is made possible through the generous support of Swiss Re.*

Passport to the Universe

The original Rose Center Space Show, narrated by Tom Hanks, is back by popular demand!

The Space Shows were developed by the American Museum of Natural History in collaboration with the National Aeronautics and Space Administration (NASA). Written by Ann Druyan and Steve Soter. Music by Stephen Endelman.

Look Up!

The Rose Center presents a star show just for kids ages 3 to 5.

Saturdays and Sundays, 10:15 a.m. Adults and children, $10; Members and Members' children, $5. All children must be accompanied by an adult.

IMAX® MOVIES

Samuel J. and Ethel LeFrak Theater
Call 212-769-5100 for show times.

Coral Reef Adventure

A fantastic underwater journey to document some of the world's largest, most beautiful, and most threatened reefs.

Pulse: a STOMP Odyssey

Take a rhythmic voyage of discovery around the world of percussion and movement.

Cover: Rendering by Arnold Imaging, ©AMNH

NEW PUBLICATION

The Blue Whale

(Chronicle Books in association with AMNH) Available in the Museum Shop for $12.95. Members' discount applies.

Celebrate the reopening of the Milstein Family Hall of Ocean Life with *The Blue Whale*, a unique pull-out book by paper construction artist Christine Corning Malloy. Take the book out of its slipcase, open it, and as you pull on the covers, its panels slip into place, creating a full-color portrait of the Museum's blue whale.

You'll also find tons of information and fascinating facts about the blue whale, such as its feeding habits, locomotion, life cycle, breathing, and breaching. Aaron Leighton's lively illustrations enliven the text throughout.

This unique book will delight children of all ages and adults, too.

FOR KIDS

Be the First to Book your Underwater Treasures Birthday Party for September!

The newly renovated Milstein Family Hall of Ocean Life is the backdrop for this deep-sea birthday adventure! Dive through 20,000 leagues, where the birthday child and friends examine the wonder of life beneath the waves. This party theme is for children ages 5 and over.

In addition to the **Underwater Treasures** party, Linda Kaye's Birthdaybakers, Partymakers presents **Dinosaur Discoveries, Global Mysteries, Cosmic Blastoff,** and **Safari Adventure**. Each of these parties brings a winning combination of education and entertainment. Parties are tailored for children ages 4 and up, and are available seven days a week as a benefit to Contributor and higher-level Members only.

For more information and to request a date, see our online brochure at www.partymakers.com or call Linda Kaye's Partymakers at 212-288-7112.

Offer from Restaurant Associates

In May and June, Restaurant Associates offers Members our Fruit and Cottage Cheese Platter for $3.50, $1.00 off the regular price. Adults and children alike are sure to enjoy this refreshing and nutritious selection. As always, Members of the Museum receive a 15% discount. Simply present your Membership card at the start of your transaction.

SHOP ONLINE

Over 200 best-selling products including crafts, jewelry, books, scientific instruments, and educational toys are now available online at www.amnh.org.

Scene from Pulse: a STOMP Odyssey

rotunda

ISSN 0194-6110
USPS Permit #472-650
Vol. 28, No. 3, May/June 2003

Lewis W. Bernard, *Chairman*
Ellen V. Futter, *President*
Lynn DeBow, *Senior Vice President for Development and Membership*
Rosemary Caulk, *Director of Membership*

Rotunda is published bimonthly, except for a combined issue in July/August/September and a single issue in December, by the Membership Office of the American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192. Phone: 212-769-5606. Web address: www.amnh.org. Museum Membership of $55 per year and up includes a subscription to *Rotunda*.
©2003 American Museum of Natural History.
Periodical postage paid at New York, NY, and at additional mailing offices. Postmaster: Please send address changes to *Rotunda*, Membership Office, AMNH, at the above address.
Printed in the USA.

Milstein Family Hall of Ocean Life Reopens

One of New York City's grandest spaces, the Museum's beloved Hall of Ocean Life, reopens this May after a major renovation. Current scientific research and cutting-edge exhibition technology have been combined with the restored Beaux-Arts elegance, which originally invoked Victorian exposition halls.

The 29,000-square-foot hall is still dominated by the famous blue whale, one of the Museum's star attractions, which now floats in a "virtual ocean" created through dramatic lighting, video, and sound effects that include whale songs. The 94-foot female—the largest model of the largest animal on Earth—has been modified to reflect current scientific knowledge of living blue whales. She now has a more streamlined area around the eyes and a more svelte, tapered tail. Above the whale, skylights gently illuminated by shimmering blue lights contribute to the illusion of being submerged in the depths of the sea.

Exhibition designers have fabricated over 600 new models, ranging from tiny green bubble algae to a 14-foot-long whale shark to computerized bioluminescent fishes and invertebrates. Joining the renovated ocean dioramas created in the 1930s and 1960s will be an 18 x 8-foot wall of video combining high-definition footage of undersea life, animations, graphics, and an evocative soundtrack that will transport visitors further into the heart of the ocean realm.

The classic dioramas on the lower level have been cleaned and restored, with new lighting brightening areas formerly obscured. In some cases, new backgrounds have been painted from sketches made in the field by exhibition staff. New exhibit text reflects the latest information about the elephant seals on Guadalupe Island, a school of leaping dolphins, and northern sea lions from Alaska's Pribiloff Island, to name just a few.

West Indian Manatee diorama | R. Mickens/AMNH

In particular, the spectacular Andros Coral Reef diorama (see "Science at the Museum," p. 9), the only two-level diorama in North America, underwent a complete overhaul to restore its vibrant original colors, to enhance visibility of the maze-like coral reef, and to reveal the wonders of this extremely threatened ecosystem. The diorama's upper level, covered for the last 30 years, depicts life above the coral reef. It has been opened for display, repaired and restored, and now offers visitors a breathtaking complete view of the coral reef system below the ocean level and above, a perspective not possible in nature.

The mezzanine level of the hall now features new exhibits on the major ocean ecosystems, including estuaries, mangrove forests, the polar seas, continental shelves, colorful coral reefs, kelp forests, the deep water column, and the deep-sea floor. High-definition video of the ecosystems shot on location around the world combine with explanatory text and newly hand-crafted models alongside historical models to depict the tremendous diversity of the Earth's seas and the life therein.

Two new "Spectrum of Life" walls flanking the entrance to the hall link the exhibits to those in the adjacent Hall of Biodiversity. They highlight the extraordinary diversity of marine life and reinforce the idea that all life is connected through an intricate web of evolutionary and ecological relationships. One wall depicts vertebrate life including fishes, reptiles,

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

MILSTEIN FAMILY HALL OF OCEAN LIFE

Friday, May 16, from 6:00 to 8:30 p.m.

RSVP to 212-769-5606 before May 12.

amphibians, and even a human, while the other showcases a profusion of invertebrates and plants. Interactive computer stations in front of each wall provide details about the biology and taxonomy of the organisms represented on the wall, as well as information about their "place" in the ocean.

Three of the Museum's classic dioramas depicting life in the oceans of the Ordovician, Permian, and Cretaceous periods—from 450 to 70 million years ago—have been meticulously restored to highlight the history of life in the primordial oceans. The exhibit features an ancient seafloor slab from the Jurassic Period containing the fossilized remains of a horseshoe crab and the tracks of its last journey. Special panels will showcase several fossil specimens, including a trilobite, a brachiopod, an ammonite, and even cyanobacteria, the first-known life form to emerge in the sea 3.5 billion years ago.

Life on Earth emerged in the oceans and much of it stayed there—scientists estimate that 80 percent of all living organisms may live under water. Over 70 percent of the Earth is covered with water and yet very little is known about the complexity and diversity of life in the oceans. What is known, however, is that the oceans play a vital role in supporting life on Earth. The aim of the renovation of the Milstein Family Hall of Ocean Life is to open a window onto the spectacular ocean ecosystems, to bring current scientific knowledge about the oceans to the public, and to reveal the mysteries and diversity of this, Earth's final frontier.

A sheepshead seabream in the Mangrove Forests ecosystem exhibit | R. Mickens/AMNH

The Milstein Family Hall of Ocean Life was designed, developed, and produced by the Museum's Exhibition Department. The lead curator is Melanie L. J. Stiassny, Axelrod Research Curator, Division of Vertebrate Zoology, working with a team of co-curators including Mark Siddall, Associate Curator, Division of Invertebrate Zoology; Paula M. Mikkelsen, Assistant Curator, Division of Invertebrate Zoology; Neil H. Landman, Curator, Division of Paleontology; and Robert S. Voss, Associate Curator, Division of Vertebrate Zoology.

A project of this magnitude would not have been possible without an extraordinary public-private partnership. The American Museum of Natural History wishes to acknowledge the following donors for enabling us to undertake the magnificent restoration and rejuvenation of the Milstein Family Hall of Ocean Life.

We are enormously grateful to lead benefactors Irma and Paul Milstein, long-standing friends and patrons of the Museum, whose spirited passion for education and our world's oceans launched this historic project.

The Museum gratefully acknowledges the important public support that has been provided by the City of New York, the New York City Council, the Department of Cultural Affairs, and the Borough President of Manhattan in the realization of this project.

The Museum deeply appreciates major support from Edwin Thorne and from Swiss Re.

Significant support also has been provided by The Marc Haas Foundation, Ruth Unterberg, MetLife Foundation, and Mikimoto.

Additional generous funding was provided by Jennifer Smith Huntley, Patricia Stryker Joseph, William H. Kearns Foundation, Denise R. Sobel and Norman K. Keller, Mrs. Frits Markus, Jane and James Moore, David Netto, Mrs. John Ungar, and the Bristol-Myers Squibb Foundation, Inc.

We are also grateful for the funding of educational programs provided by The Atlantic Philanthropies, The Bodman Foundation, and The Louis Calder Foundation.

Dolphins diorama | R. Mickens/AMNH

Members' Programs

These programs are available to Members only.

EXPEDITIONS

Walk across the Bronx

Sunday, June 8 MW060803
9:00 a.m.–4:00 p.m.
$40

Put on your walking shoes and join Sidney Horenstein, Coordinator of Environmental Programs, for a seven-mile walk from upper Manhattan, across the Bronx, and on to the nautical community of City Island. Along the way, learn about the geology and natural history of the Bronx.

The Horseshoe Crab and Its Habitat

Thursday, June 12 MO061203
7:30 a.m.–4:30 p.m.
$80

Despite its name, the horseshoe crab is not actually a crustacean. The blood of this remarkable prehistoric creature has saved countless lives. Find out how by joining Dave Karrmann, Senior Museum Instructor, on this expedition to Long Island to discover the only North American species of horseshoe crab (out of only four worldwide). Study its habitat aboard the pontoon boat *Discovery*, followed by a hands-on coastal ecology workshop at the Ward Melville Heritage Organization's Marine Conservation Center. Fee includes transportation by private motor coach.

Chocolate Lovers' Adventures

Join Joyce Weinberg for explorations of chocolate in New York. Weinberg is president of ConfectionZone Inc, which specializes in all things chocolate. A seasoned food industry professional, she has managed a Fortune 500 confectionery business, designed and managed a restaurant, and brokered chocolate to a wide range of clients.

Chocolate Walk

Saturday, June 21 MW062103
9:00 a.m.–4:00 p.m.
$45 (limited to 24 adults)

Join this walking tour to some of Manhattan's high-end chocolate boutiques for glimpses of European confections and American gourmet chocolate. Behind the scenes you'll see the making of lushly artistic chocolate creations and enjoy mouth-watering masterpieces as you learn to truly appreciate high-quality chocolate.

Chocolate by Coach

Saturday, June 28 MO062803
9:00 a.m.–5:00 p.m.
$95 (limited to 40 adults)

Chocoholics unite! Meet renowned chocolatiers on this expedition through Manhattan and Brooklyn, which makes stops at upscale chocolate shops and a chocolate factory. Dazzle your taste buds with the fine points of artisanal chocolate. Lunch, of course, will be at a restaurant that specializes in this delicious treat. Cost includes lunch and transportation by private motor coach.

Natural History of Staten Island

Saturday, July 12 MO071203
9:00 a.m.–4:00 p.m.
$75

Staten Island, the "greenest" borough in New York City, boasts a magnificent mosaic of meadows, wetlands, and woods. Travel aboard the Staten Island Ferry and join naturalist Richard Buegler, an expert on Staten Island's natural history, to explore the habitats of Mount Loretto, a striking waterfront property that features stunning vistas from the highest natural bluffs in New York City, and Clay Pit Ponds, with its spring-fed streams, sandy barrens, woodlands, and pitch pine forests. Fee includes transportation by private motor coach.

The "Bone Wars" Expedition

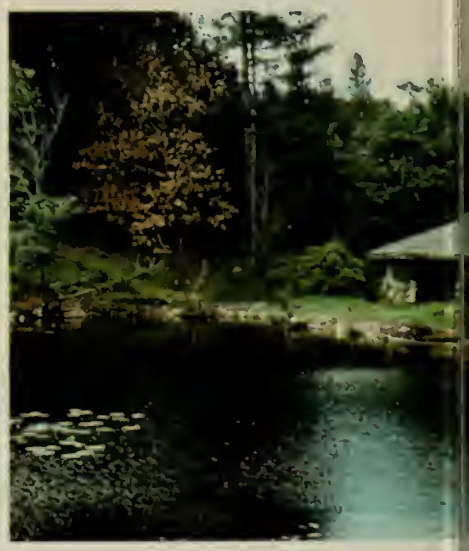
Friday, July 18 MO071803
9:00 a.m.–5:00 p.m.
$75

Travel to Yale University's Peabody Museum of Natural History, founded in 1866 at the urging of Othniel Charles Marsh, a Yale graduate and eminent paleontologist, and the first person in the United States to be granted a professorship in the new field of paleontology. Go behind the scenes in the Peabody's vertebrate paleontology labs with Marilyn Fox, lab supervisor and contributor to the renovated dinosaur halls at the American Museum of Natural History. Museum Tour Guide Suzi Zetkus leads this trip. Fee includes transportation by private motor coach.

Ecology of Iron Mining in the Hudson Valley

Tuesday, July 22 MO072203
9:00 a.m.–5:00 p.m.
$75

Known for its natural beauty and its extensive trails and lakes, Harriman State Park in upstate New York has a rich history as a source of iron. Evidence of iron mining can still be seen today—from slag piles and charcoaling platforms to abandoned mines. Join Sacha Spector, Invertebrate Laboratory Manager, Center for Biodiversity and Conservation, for an expedition to examine the impact of 18th- and 19th-century iron mining on the ecology of this region. Fee includes transportation by private motor coach.



New York State Parks

Great Gull Island

Thursday, July 24 MO072403
8:00 a.m.–6:00 p.m.
$90 (limited to 27 adults)

Great Gull Island, a Museum research station in Long Island Sound, is the site of ongoing research, begun in 1966, on the endangered roseate tern and the threatened common tern. Take advantage of this rare opportunity for a trip to the island, which is usually open only to researchers and scientists. Take a tour with Helen Hays, a Museum ornithologist who has been studying the birds for over 30 years. Fee includes transportation by private motor coach and by private chartered boat.

WEEKEND EXPEDITION

Erie Canal

Saturday–Sunday,
August 16–17 MO081603

This expedition to discover the extraordinary natural and social history of the Erie Canal is led by Sidney Horenstein, Coordinator of Environmental Programs. Saturday begins at the Erie Canal Museum in Syracuse, New York, for an introduction to the world-famous canal that transformed not only the transportation of goods, but also a way of life. On Sunday, the trip continues at Erie Canal Park in Camillus to explore a replica of an original store along the canal and an aqueduct. The weekend concludes with a relaxing luncheon cruise along the Canal aboard the *City of Syracuse*.

$275 per person double occupancy; $335 per person single occupancy. Fee includes transportation by private motor coach, one lunch, and one night's accommodation at the Hotel Syracuse.

MEMBERS' FAMILY PROGRAMS

The Charm of Chocolate

Saturday, June 14 MC051403
10:30 a.m.–12:00 p.m.
$40/pair

Chocolate lovers are invited to celebrate the opening of *Chocolate*. Judith Freeman, Museum Tour Guide, will lead a special tour through the exhibition. Following the tour, participants will team up with Godiva and Restaurant Associates for a deliciously inspiring workshop to learn about and prepare different kinds of chocolate candies. Each team will take home a candy kit and the confections they prepared. Fee includes all materials. *(Ages 8–13; each child with one adult)*

© 2002 Photodisc

Father's Day with the Dinosaurs

Sunday, June 15 MC061503
11:00 a.m.–2:00 p.m.
Rose Center Classroom
$100/pair; $45 each additional child

Spend this Father's Day with the kids in a world of dinosaurs, learning what we know and how we know it. Museum Tour Guide Bill Hinchman leads you through the dinosaur halls and Amy Davidson, Senior Principal Preparator, Department of Paleontology, explains the inner workings of the fossil preparation laboratory. Later, participants make their own fossil casts with Pamela Popeson, former Director of the Museum's Fossil Reproduction Department. Fee includes all materials and lunch. *(Ages 8 and up, each father accompanied by at least one child)*

Luidia senegalensis | R. Mickens/AMNH

Aquanaut Adventures

Sunday, August 24 MC082403
10:30 a.m.–12:30 p.m.
Rose Center Classroom
$40/pair

Whether you're seeking fish, sharks, and whales, or more exotic specimens such as coral, join us for an "undersea" voyage in the newly renovated Milstein Family Hall of Ocean Life. Afterward, return to the classroom to create your favorite sea creatures. Museum Volunteer June Myles leads this workshop. *(Ages 5–7, each child with one adult)*

FREE HALL TOURS

To the Ends of the Earth: An Animal Safari

Saturday or Sunday,
June 21 or 22 MT0603
4:00 p.m.
Free (Registration required)

Take a trek from the top of our vast world to the bottom, stopping along the way on each of the major continents to view members of the diversified animal kingdom that makes Earth home—all without leaving the confines of the Museum. Examine a wide sampling of the animal kingdom—including birds, reptiles, lizards, mammals, and insects—that is but a small part of the diversity of life on our planet.

For tickets, call 212-769-5200 or visit www.amnh.org. All Members' programs require advance registration.

Museum Turned Inside Out

Saturday or Sunday,
July 12 or 13 MT0703
4:00 p.m.
Free (Registration required)

Explore the natural history outside the Museum as Tour Guide Christian Waters leads you on a walk around the Museum's perimeter. Stand where glaciers once stood, find out why dogs act like teenage wolves, learn about the history and architecture of the Museum's buildings, and discover the most valuable thing on the Museum's premises.

PREVIOUSLY LISTED

John D. Rockefeller: Art and Nature

Saturday, May 10 MO051003
8:30 a.m.–5:00 p.m.
$100

John D. Rockefeller gave over half his fortune to various philanthropies, including AMNH. Gain a deeper understanding of his passion for the preservation of nature and art on this tour of the Rockefeller State Park Preserve and Kykuit, the Rockefeller estate in the Hudson Valley, with Joel Sweimler, Senior Exhibition Developer at the Museum and decorative arts expert. Lunch, admission to Kykuit, and transportation by charter bus is included.

The Fate of the Mammoth: Fossils, Myth, and History

Tuesday, May 13 ML051303
7:00 p.m.
Kaufmann Theater
$10 Members; $12 Non-Members

The remains of woolly mammoths have played a crucial role in the development of the field of paleontology. Claudine Cohen, École des Hautes Études en Sciences Sociales, Paris, will discuss her research on the history of the science, myth, and popular culture of the mammoth.

Spring Bird Watching at Jamaica Bay

Saturday, May 17 MW051703
10:00 a.m.–2:00 p.m.
$36

Join Paul Sweet, Collections Manager in the Department of Ornithology, for a birding walk at Jamaica Bay Wildlife Refuge. This visit will coincide with the peak of the spring migration of songbirds, including many species of warbler, vireo, tanager, and thrush.

Milsteins' Gift Makes New Hall a Reality

As dedicated supporters of educational initiatives throughout New York City, Irma and Paul Milstein have been involved with the American Museum of Natural History for over a decade, with Irma joining the Museum's Board of Trustees in 1995. Together, they have generously and enthusiastically supported a number of the Museum's special projects and campaigns as lead benefactors, including the Milstein Hall of Advanced Mammals; the Milstein Family Vertebrate Paleontology Moveable Museum, which some 80,000 children have visited since its launch in 1999; and most recently, the Irma and Paul Milstein Family Hall of Ocean Life.

The Milsteins appreciate the importance of educating people of all ages about the wonders, mysteries, and threats to our planet's oceans. "It has been a wonderfully satisfying experience for the whole family to be associated with the Museum, which we believe is one of New York City's most fabulous educational resources for children and adults. Paul, our four children, our 11 grandchildren, and I look forward to the Hall of Ocean Life's reopening and to seeing our planet's largest creature of all time—the blue whale—in its newly beautified home," says Irma Milstein. According to Museum President Ellen V. Futter, "With the help of Irma and Paul Milstein, the Museum was able to bring out the best in one of our most beloved treasures, enlivening the hall for millions of visitors today and for generations to come. The new Milstein Family Hall of Ocean Life places a spotlight on the critical role of ocean ecosystems in maintaining the balance of life on Earth, and educates the public about the last great frontier on Earth—the marine world. We are so very grateful to the Milsteins for enabling us to share the beauty, the science, and the majesty of our 'blue planet,' and for providing such a magnificent model for others who love the Museum."

Irma and Paul Milstein (second from left and second from right) join Ellen Futter (center), David Harvey, and Barbara Gunn in the Hall of Ocean Life. | D. Finnin/AMNH

Science at the Museum

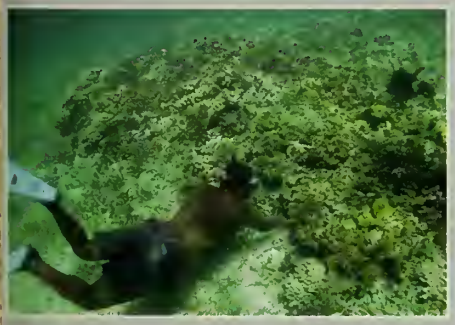
The Andros Coral Reef—Then and Now

One of the highlights of the American Museum of Natural History's newly opened Irma and Paul Milstein Family Hall of Ocean Life is the refurbished, two-story Andros Coral Reef diorama located at the west end of the hall. The diorama was originally completed in 1935 with actual pieces of reef from the third largest barrier reef in the world, off Andros Island in The Bahamas. To create this diorama—still the only two-level diorama in North America—Museum Curator Roy Waldo Miner led a series of expeditions to Andros and brought back huge pieces of coral and other specimens. The diorama was put together under his direction by a team of scientists and artists, and now stands as a "snapshot in time" of a coral reef environment as it appeared some 70 years ago. It depicts an ecosystem healthy and abundant with life, with plenty of live coral and numerous large fish and crustaceans swimming and crawling around the reef.

Over the years this ambitious exhibit has introduced millions of Museum visitors to the extraordinary productivity and diversity of sea life in a classic Caribbean coral reef environment. But what many visitors may not know is that the Museum's Center for Biodiversity and Conservation (CBC), along with a team of collaborators from other institutions, has recently launched a major marine conservation initiative on Andros—and extending throughout The Bahamas—continuing the Museum's historical presence there. The emphasis of the Museum's work in Andros has changed, however: the initial study of what was then perceived to be a limitless and invulnerable expanse of coral reef life has now become a strategic effort to understand how best to conserve and ultimately restore reef ecosystems.

Preparators Bruce Brunnel and Chris Olsen at work on the coral reef diorama, 1934 | Julius Kirschner

Andros Island coral reef | Katherine Holmes



Today's coral reefs are generally in much poorer shape than the reef shown in the Andros diorama, with increasingly widespread damage due to coral bleaching, sedimentation, disease outbreaks, algal blooms, and overfishing. Since many of these onslaughts are the result of human activities, there are many challenges to devising and implementing management strategies that will reduce the damage and eventually turn the corner toward recovery.

The CBC's current work in Andros takes an interdisciplinary approach to meet these challenges. The Commonwealth of The Bahamas is continuing to establish, develop, and improve marine reserves throughout its islands. These conservation efforts are providing CBC researchers and collaborators with an unprecedented opportunity to analyze the physical, biological, economic, and social processes affecting a wide variety of reef ecosystems, and to integrate all of this information in recommendations for conservation strategies. Such interdisciplinary research—leading to a better understanding of how humans interact with the natural world—is increasingly necessary to provide robust responses to ongoing threats to both biodiversity and fisheries.

Initial results from the CBC's work in Andros suggest that the reef system has sustained stress recently, perhaps due to coral bleaching and disease. Local Androsian fishermen, such as Rivean Gibson (pictured at left), recognize this change and are working alongside scientists to help further our understanding of these fragile, important systems.

The restoration of the Andros Coral Reef diorama for the renovated Milstein Family Hall of Ocean Life was a long, exacting process. It will take far longer—and require the participation of many—to do the same for the coral reefs around the world.

The Lure of Chocolate

The world's best chocolate makers covet criollo's rare and prized seeds. | © 2002 The Field Museum, Teresa Murray

Chocolate

June 14–September 7, 2003
Gallery 3

Chocolate has enchanted humanity for centuries with its tempting taste. The Maya had a hieroglyph for it and at one time there were nearly 2,000 chocolate cafés in London alone. Now here is a chance to look at the science behind the seduction. Starting June 14, the American Museum of Natural History will feature *Chocolate*, an exhibition devoted to the ecology, anthropology, history, and economics of this treat. The exhibition will be on view in Gallery 3 through September 7, 2003.

Chocolate begins by luring visitors into a tropical rain forest where they can examine a replica of a *Theobroma cacao* tree, which produces the seeds that are used to make the sublime substance. This section explores the complex ecosystem that supports the tree, the insects that pollinate it, and the birds that nest in its limbs.

The exhibition goes on to consider the role of chocolate in the lives of ancient indigenous civilizations. On view will be carved vessels, cacao seeds in dishes, and chemical residues in pots that helped scientists trace the roots of chocolate to the ancient Maya, the first to turn the bitter seeds of the cacao into a spicy beverage used in ceremonies and trade. An interactive Aztec marketplace will demonstrate the power of chocolate—its use as a luxury libation for the elite, an offering to the gods, payment to rulers, and money in the market. Visitors will also find out what treasures Cortés discovered in Montezuma's storerooms.

The sections that follow document chocolate's extensive reach, beginning with the Spanish conquest of the Americas and the ensuing European quest for cacao. Exhibits will illustrate that while wealthy consumers frequented the most elite chocolate houses in Europe during the 17th, 18th, and 19th centuries, thousands of slaves toiled on sugar and cacao plantations to keep up with demand. Visitors will also learn about the important role chocolate manufacturing played in the industrial revolution and the fascinating relationship between growing, selling, and consuming cacao in the modern global market.

Chocolate concludes with the cacao bean's role in the world today. Visitors will learn how it is harvested and prepared; what farmers are doing to earn an income while preserving the rain forest; the role of chocolate in different world cultures; and the myths and realities of chocolate's effect on health.

Chocolate and its national tour have been developed by The Field Museum, Chicago, and are supported, in part, by the National Science Foundation. The presentation of Chocolate at the American Museum of Natural History is curated by Charles Spencer, Curator and Chair of the Division of Anthropology.

Chocolate Sculptures on View at the Museum

Nine celebrated chocolatiers and pastry chefs will sculpt signature pieces in chocolate inspired by the Museum's collections. Four of the pieces will be on exhibit at the Museum in early June and the remaining five will be unveiled on July 17 when, at 7:00 p.m., some of the participants will gather to discuss the creation of their pieces. Robert Wolke, professor of chemistry and a syndicated columnist for *The Washington Post*, will discuss the chemical and physical processes that enable chocolate to be molded into art.

Don't miss the **Chocolate Café** for a selection of delicious treats. *Fourth floor.*

Sweet chocolate candy is a rather recent invention—it made its debut in 1847. | © 2002 Photodisc

GET READY FOR SUMMER.

Celebrate the reopening of the Museum's beloved Hall of Ocean Life with the Museum Shop's exciting line of ocean life gifts! This youth T-shirt and baseball cap showcase the whimsical side of the Museum's renowned blue whale model. Also featured here are our unique plush sea creatures, made of super-soft, textured velvet. Come visit the Museum Shops or shop online for a greater selection of extraordinary gifts.

SHOP ONLINE!
WWW.AMNH.ORG

AMERICAN MUSEUM of NATURAL HISTORY

A GIFTED IDEA.

For more information, please call 212-769-5150; www.amnh.org

General Information

HOURS

Museum: Daily, 10:00 a.m.–5:45 p.m.
The Rose Center remains open until 8:45 p.m. on Friday. The Museum is closed Thanksgiving and Christmas.
Space Show: Every half hour, Sunday–Thursday and Saturday, 10:30 a.m.–4:30 p.m., Friday, 10:30 a.m.–7:30 p.m.
Research Library: Tuesday–Friday, 11:00 a.m. –4:00 p.m.
Hours are subject to change.

ENTRANCES

During Museum hours, visitors may enter through the subway (lower level), Central Park West at 79th Street (second floor), and the Rose Center/81st Street entrances. The 77th Street and Weston Pavilion/Columbus Avenue entrances are closed until further notice.

TRANSPORTATION AND PARKING

Subway: B (weekdays) or C to 81st Street; 1 or 9 to 79th Street
Bus: M7, M10, M11, or M104 to 79th Street; M79 to Central Park West
Parking Garage: Open daily, 8:00 a.m.–11:00 p.m.; enter from West 81st Street. Members receive a discounted rate of $10 if entering after 4:00 p.m. To receive this rate, you must have your parking ticket validated at the Security Desk (first floor, Central Park West entrance). For more information, call 212-313-7278.

FOOD SERVICE

Museum Food Court: Daily, 11:00 a.m.–4:45 p.m. (*lower level*)
Café on 4: Saturday and Sunday, 11:00 a.m.–4:45 p.m (*fourth floor*)
Big Dipper Ice Cream Café: Saturday and Sunday, noon–4:45 p.m. Daily after June 14 (*lower level*)
Hours are subject to change.

MUSEUM SHOP

The following Museum Shops are open during regular Museum hours:
Main Shop (*first and second floors*)
Dinostore and More (*fourth floor*)
Planetarium Shop (*Rose Center, lower level*)
Satellite Shop (*Rose Center, first floor*)
Einstein Shop (*fourth floor*)
Butterflies Shop (*second floor*)
Chocolate Shop (*third floor*)

PHONE NUMBERS

Museum Information	212-769-5100
Membership Office	212-769-5606
Planetarium Information	212-769-5900
Member Birthday Parties	212-769-5606
Education Department	212-769-5310
Planned Giving Office	212-769-5119
Discovery Tours	212-769-5700
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
Web Site	www.amnh.org

Vietnamese Marketplace and Café Pho
(First floor)
Experience the traditional tastes and sights of Vietnam in our re-created marketplace.

AMERICAN MUSEUM OF NATURAL HISTORY

Please remember to go to a Museum to receive your c exhibition tickets. A our Membership Desks. C you need fo

Rotunda.
American Museum of Natural History
Received on: 05-02-03

Membership Desks are located in the Rotunda, the Rose Center (lower level), and at the subway entrance. Signs are posted to direct you.

If you have any questions, please call the Membership Office at 212-769-5606 between 9:00 a.m. and 5:00 p.m.

Thank you for your continued support of the American Museum of Natural History!

Membership Department
Central Park West at 79th Street
New York, New York 10024-5192
www.amnh.org

rotunda

OL. 28 NO. 4 JULY/AUGUST/SEPTEMBER 2003

MEMBERS' NEWSLETTER

70
62
28
4
-Sep
03

AMERICAN MUSEUM OF NATURAL HISTORY

Museum Notes

EXHIBITIONS

Chocolate

June 14–September 7
Gallery 3

The delicious story of chocolate spans more than two thousand years and began in the tropical rain forests of Central and South America where cacao trees, the seeds of which are made into chocolate, first grew. This fascinating exhibition will explore the legends, history, ecology, economics, and enduring allure of this delectable phenomenon which has variously been used to express love, to flaunt wealth, to pay debts, and to venerate the gods.

Chocolate and its national tour were developed by The Field Museum, Chicago. This project was supported, in part, by the National Science Foundation.

© 2002 Photodisc

D. Finnin/AMNH

Vietnam: Journeys of Body, Mind & Spirit

Through January 4, 2004
Gallery 77

This comprehensive exhibition on Vietnamese life, the first in the United States, presents Vietnamese culture in the early 21st century. The visitor is invited to "walk in Vietnamese shoes" and explore daily life among Vietnam's more than 50 ethnic groups. The objects on display, supplemented by photographs and video footage, range from the traditional to the contemporary, and often merge the two, reflecting the dynamic process that has created modern Vietnamese culture.

Organized by the American Museum of Natural History, New York, and the Vietnam Museum of Ethnology, Hanoi. This exhibition and related programs are made possible by the philanthropic leadership of the **Freeman Foundation**. *Additional generous funding provided by the Ford Foundation for the collaboration between the American Museum of Natural History and the Vietnam Museum of Ethnology. Also supported by the Asian Cultural Council. Planning grant provided by the National Endowment for the Humanities.*

Discovering Vietnam's Biodiversity

Through January 4, 2004
Akeley Gallery

This exhibition of photographs highlights Vietnam's remarkable diversity of plants and animals and the Museum's Center for Biodiversity and Conservation's ongoing research there.

This exhibition is made possible by the Arthur Ross Foundation and by the National Science Foundation.

Einstein

New closing date: July 27
Gallery 4

This unprecedented exhibition profiles this extraordinary scientific genius, whose achievements were so substantial and groundbreaking that his name is virtually synonymous with science in the public mind.

Organized by the American Museum of Natural History, New York; The Hebrew University of Jerusalem; and the Skirball Cultural Center, Los Angeles. Einstein *is made possible through the generous support of Jack and Susan Rudin and the Skirball Foundation, and of the Corporate Tour Sponsor, TIAA-CREF.*

Cover: Rana maosonensis *from Ha Giang Province, Vietnam* | Raoul Bain/AMNH CBC

SPACE SHOWS

The Search for Life: Are We Alone?

This Space Show will whisk you on an incredible journey from the lightless depths of Earth's oceans to newly discovered planets on a quest for worlds that might support life.

The Search for Life: Are We Alone? *is made possible through the generous support of Swiss Re.*

Passport to the Universe

The original Hayden Planetarium Space Show, narrated by Tom Hanks, is back by popular demand!

The Space Shows were developed by the American Museum of Natural History in collaboration with the National Aeronautics and Space Administration (NASA). Written by Ann Druyan and Steve Soter. Music by Stephen Endelman.

Look Up!

The Rose Center presents a star show just for kids! An engaging host will introduce young visitors, ages 3 to 5, to the wonders of the night sky, all under the Hayden Planetarium dome. Children will learn through songs, storytelling, the spectacular Zeiss star projector, vivid visuals, and more.

Saturdays and Sundays, 10:15 a.m. Adults and children, $10; Members and Members' children, $5. All children must be accompanied by an adult.

IMAX® MOVIES

Samuel J. and Ethel LeFrak Theater
Call 212-769-5100 for show times.

Coral Reef Adventure

A fantastic underwater journey to some of the world's largest, most beautiful—and most threatened—reefs.

Pulse: a STOMP Odyssey

Take a rhythmic voyage of discovery around the world of percussion and movement.

SEMINARS ON SCIENCE

Six-Week Online Courses for Educators

Register for fall 2003

Ever wanted to deepen your science knowledge from the comfort of your home? Now you can work alongside a researcher investigating Earth science, paleontology, or astrophysics. The Museum's Education Department offers Seminars on Science, online professional development courses for educators and others interested. Check our Web site for more information on how to register: www.amnh.org/seminarsonscience.

Seminars on Science is generously supported by The Atlantic Philanthropies.

NEW PUBLICATIONS

Introduce Your Child to the World of Science

These lively new books are rich with photographs, diagrams, and charts. Easy to read and creatively designed, the books can be read by children alone or shared with their parents. Glossaries put all the terms in the books at your fingertips.

What Fossils Tell Us No one has ever seen a dinosaur, so how do we know they existed? Dig in and find out what a fossil is and how paleontologists uncover their meaning.

The Kingdoms of Life To make order of the vast number of plants and animals that live on Earth, scientists name them and classify them into groups. Learn about the amazing diversity of life and how scientists are working to make sure no organism is left out.

Animals without Backbones Ninety-five percent of the creatures on Earth are invertebrates. Learn about spotted ladybugs, spiny sea urchins, and slimy garden slugs, to name just a few.

How Bodies Work How does your body grow? What makes a chameleon change color? Why do you shiver when you're cold? Find the answers to these and many other questions about bodies.

Written by Bridget Anderson under the auspices of the Museum and the Bank Street College of Education. Available in the Museum Shop, 48 pages each, $18.95. Member's discount applies.

FOR KIDS

Book your Underwater Treasures Birthday Party for September!

The newly renovated Milstein Family Hall of Ocean Life is the backdrop for this deep-sea birthday adventure in which the birthday child and friends examine the wonder of life beneath the waves. This party theme is for children ages 5 and over.

In addition to the **Underwater Treasures** party, Linda Kaye's Birthdaybakers, Partymakers offers **Dinosaur Discoveries, Global Mysteries, Cosmic Blastoff,** and **Safari Adventure**. Each of these parties provides a winning combination of education and entertainment. Parties are tailored for children ages 4 and up, and are available seven days a week as a benefit to Contributor and higher-level Members only.

For more information see our online brochure at www.partymakers.com or call Linda Kaye's Partymakers at 212-288-7112.

Two-for-One Sundae Offer

This July, August, and September, Restaurant Associates is pleased to offer Members a complimentary ice cream sundae of their choice (a $3.95 value) with the purchase of a regularly priced sundae at the Big Dipper Ice Cream Café. The Big Dipper is located on the lower level, near the Museum Food Court, and features classic ice cream parlor treats.

As always, Members receive a 15% discount on all RA purchases—simply present your Membership card at the start of your transaction.

rotunda

ISSN 0194-6110
USPS Permit #472-650
Vol. 28, No. 4, July/August/September 2003

Lewis W. Bernard, *Chairman*
Ellen V. Futter, *President*
Lynn DeBow, *Senior Vice President for Development and Membership*
Rosemary Caulk, *Director of Membership*

Rotunda is published bimonthly, except for a combined issue in July/August/September and a single issue in December, by the Membership Office of the American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192. Phone: 212-769-5606. Web address: www.amnh.org. Museum Membership of $55 per year and up includes a subscription to *Rotunda*.

©2003 American Museum of Natural History.

Periodical postage paid at New York, NY, and at additional mailing offices. Postmaster: Please send address changes to *Rotunda*, Membership Office, AMNH, at the above address.
Printed in the USA.

CBC's Tenth Anniversary

Ten Years of Research, Education, and Outreach

Biodiversity is the variety of life in all its forms, and the interactions among them. Over the years the Museum's scientists have traveled the globe, working to map the biodiversity of the planet and understand it in evolutionary terms, traversing such diverse ecosystems as tropical forests, grasslands, mountains, and deserts. Recently, as scientists return to places where they have been working, they have become increasingly alarmed to see the rapid degradation of habitat and loss of species.

While the Earth has always experienced change and extinction events, current losses of species are thought to be caused predominantly by human activity, and are occurring at an unprecedented rate. Because of the close interconnections in the natural world, any change in an ecosystem sooner or later causes a chain of reactions that reverberates throughout the entire system, eventually affecting us. Under the leadership of Senior Vice President and Provost for Science Michael J. Novacek, the Museum created the Center for Biodiversity and Conservation (CBC) ten years ago to bring the Museum's extraordinary scientific resources—its scientists, its collections, its library, and its technology—to bear in response to the biodiversity crisis.

Some of the CBC's major projects are:

Protecting coral reef systems. CBC scientists are leading a collaborative project in The Bahamas analyzing the physical, biological, economic, and cultural processes affecting coral reef ecosystems in order to develop integrated conservation strategies. Such interdisciplinary research is increasingly necessary in order to provide robust responses to ongoing threats to marine biodiversity and fisheries.

Ulla, Bolivia | Eleanor Sterling/AMNH CBC

Surveying species and working with communities in the Bolivian Andes. Together with Bolivian colleagues, the CBC is conducting biological surveys (some of which have revealed species new to science) along the Amboró-Madidi corridor of the Bolivian Andes. The CBC and its Bolivian partners are also working with communities that live in or near protected areas, assisting with projects such as the creation of interpretive trails and centers that highlight the link between cultural traditions and biodiversity.

Tracking whales off Madagascar. Begun in 1996 as a survey of humpback whales in Madagascar's Antongil Bay, this collaborative project of the CBC and the Wildlife Conservation Society has grown into a multinational marine mammal protection effort, and has yielded significant new information about whale populations, their behavior, and migration patterns. This work has led to the creation of a new law governing "ecotourism" and whale watching in Malagasy waters that helps to protect whales along their migration route.

Hyla armata *from Bolivia, Parque Nacional Amboró, Rio Cerro Bravo* | Raoul Bain/AMNH CBC

Understanding Vietnam's unique biodiversity. Vietnam is at a critical juncture in its efforts to study and conserve the country's rich diversity of plants and animals, as many species are threatened or endangered by some of the world's fastest rates of both human population growth and habitat degradation. Since 1997 the CBC has worked with Vietnamese partners to map the distribution of biodiversity in proposed protected areas and to study resource use by human populations adjacent to these sites. The CBC has also significantly contributed to the effort to introduce remote sensing/geographic information systems technology as a tool for conservation in Vietnam. CBC's scientists have described several new species of invertebrates and amphibians, as well as new birds and small mammals. In spring 2000, CBC-trained Vietnamese scientists using self-triggering cameras were able to confirm the existence of a species of otter thought to be extinct in Vietnam for several decades. The CBC is soon to publish a richly illustrated book for the layperson on Vietnam's remarkable biodiversity.

Conserving natural areas at home. The CBC runs a program focusing on New York State and urban biodiversity, conducting research and holding workshops on native species such as bees, mussels, and dragonflies. The CBC recently published *Life in the Leaf Litter*, an educational guide to organisms found in leaf litter (the layer of fallen leaves, twigs, seeds, and other debris that accumulates on the ground) and how to preserve them.

Coral Reef: Acropora palmate, *Andros Island, The Bahamas* | Daniel Brumbaugh/AMNH CBC

The booklet was based, in part, on a scientific survey that uncovered a new genus and species of centipede—*Nannarrup hoffmani*—found right across the street from the Museum, in Central Park.

Developing networks for conservation education. One of the CBC's newer projects, the Network for Conservation Educators and Practitioners (NCEP), is a far-reaching initiative to design, create, and foster the implementation of a comprehensive set of biodiversity and conservation teaching and learning materials. The program was initiated to address the needs of countries that are rich in biodiversity but lack access to such educational resources. The project has been so successful overseas that the CBC's colleagues in the United States have requested a U.S. component of the project.

In addition, each spring, the CBC convenes a symposium that brings together scientists, educators, and policy-makers to discuss the relationship of critical issues to biodiversity. Previous symposia have focused on biodiversity and human health, urban sprawl, climate change, and sustainable nature-based tourism. One of the ways in which the CBC is unique in the global effort to preserve biodiversity is its focus on the critical role of invertebrates in healthy, functioning ecosystems. The 2004 symposium will build upon this research strength, and will also bring the message of the importance of invertebrates to the general public.

The CBC's Director, Eleanor J. Sterling, looks forward to the next ten years of conserving biodiversity. "As we expand our knowledge of life on Earth and how we are intertwined with it, I believe that more and more people will become interested in making the conservation of biodiversity a part of their everyday lives."

To learn more about the CBC, visit www.amnh.org.

Bumblebee (Bombus impatiens) *pollinating watermelon* | James H. Cane, USDA-ARS

A humpback whale in Madagascar's Antongil Bay | Peter J. Ersts/AMNH CBC

Members' Programs

Programs are available to Members only, unless a non-Member's price is given.

EXPEDITIONS

Central Park Sunset Tours: West Side, East Side

West Side: Tuesday, August 5 MW0803A
East Side: Thursday, August 7 MW0803B
6:00–8:00 p.m.
$40 for both; $22 each

Take advantage of a warm summer evening with a sunset walk in Manhattan with Sidney Horenstein, Coordinator of Environmental Programs. As the city eases into evening, stroll uptown through Central Park while learning about the geologic features and historic aspects of the area.

Sterling Forest Entomology Investigation

Saturday, September 6 MO090603
2:00–10:00 p.m.
$75

Explore the insect life in Sterling Forest, in Tuxedo, New York. Join Sacha Spector, Invertebrate Laboratory Manager for the Center for Biodiversity and Conservation, for a hike from wetland environments to upland forests. Learn the importance of insect biodiversity for nature and human ecology. After dark, black lights will reveal the fascinating creatures that come out at night. Fee includes transportation by private motor coach.

Croton Point Park, Hudson Valley

Saturday, September 20 MO092003
9:00 a.m.–5:00 p.m.
$75

Croton Point Park, on a peninsula on the east shore of the Hudson River, is rich in natural and cultural history. It is home to diverse animals and is the site of a fortified Indian village and an old Dutch trading post. Visit this scenic park with Dave Karrmann, Senior Museum Instructor in the Department of Education, and explore an important part of New York's heritage. Fee includes transportation by private motor coach.

BEHIND-THE-SCENES TOURS

Behind the Scenes in Ichthyology

Thursday, September 18
MB091803
6:30, 7:00, or 7:30 p.m.
$30

The Museum's Department of Ichthyology houses a spectacularly diverse collection of fishes, worldwide in scope—from the ancient coelacanth to tropical beauties from Australia's Great Barrier Reef. In addition to the main collection of specimens preserved in alcohol, there is a special collection of cleared-and-stained specimens, one of the world's largest dry skeleton collections, and a larval fish collection. The Department is ranked among the foremost international centers of ichthyological research. Meet Curator Melanie Stiassny, Assistant Curator John Sparks, and Senior Scientific Assistant Radford Arrindell during this informative and fascinating tour behind the scenes.

Behind the Scenes in the Department of Earth and Planetary Sciences: Volcanoes

Wednesday, October 15 MB101503
6:30, 7:00, or 7:30 p.m.
$30

Volcanic eruptions conjure images of red-hot lava flowing down the side of a mountain. The actual story is much less straightforward. Go behind the scenes in the Department of Earth and Planetary Sciences and learn about eruptions and how scientists study volcanoes. Research Scientist Charles Mandeville will discuss his research on the climatic and preclimatic eruptions of Mount Mazama, Crater Lake, Oregon, and Curator and Division Chair James Webster will discuss his research on the eruptions of Mount Vesuvius.

Hot rocks rolling out of a lava flow | Frederick Pough/AMNH

LECTURES

Sable antelope bull, Luando Reserve | Richard D. Estes

A Certain Curve of Horn

Tuesday, September 16 ML091603
7:00 p.m.
Kaufmann Theater
$12 Members; $15 Non-Members

The giant sable antelope, with its curved horns over five feet long, is only found in war-torn Angola. This endangered beast is one of the last of Africa's large quadrupeds to be brought to the Western world's attention. Join John Frederick Walker, a freelance journalist, as he weaves the fascinating story of this animal's survival with politics, colonialism, and revolution.

Prehistoric Art: The Symbolic Journey

Thursday, September 25 ML092503
7:00 p.m.
Kaufmann Theater
$12 Members; $15 Non-Members

In his recent book, *Prehistoric Art: The Symbolic Journey of Humankind*, anthropologist Randall White draws on the most up-to-date research to survey the history of creative

expression from the first explosion of imagery 40,000 years ago to the work of "Stone Age" peoples of the early 20th century.

White directs the Institute for Ice Age Studies in New York and is Professor of Anthropology at New York University. He organized the body ornament section of the new French National Museum of Prehistory.

Sea Dragons: Predators of Prehistoric Seas

Wednesday, October 22 ML102203
7:00 p.m.
Kaufmann Theater
$12 Members; $15 Non-Members

A creature with jaws and teeth strong enough to crush even the hardest-shelled giant sea turtle. A four-flippered behemoth with the body of a dolphin and the tail of a shark. In *Sea Dragons: Predators of Prehistoric Seas*, Richard Ellis discusses the lives, deaths, reproductive habits, and hunting strategies of these and other giant marine reptiles of the Mesozoic era.

Ellis, a Research Associate in the Division of Paleontology, is the author of many books, including *The Empty Ocean* and *The Search for the Giant Squid*.

The Extraordinary Sea Voyages of Captain James Cook

Tuesday, October 28 ML102803
7:00 p.m.
Kaufmann Theater
$12 Members; $15 Non-Members

Captain James Cook, the famous explorer of the Pacific, made history by sailing through the southern seas previously known as blank spaces on the map. His encounters with Aleuts, Maoris, Tahitians, and many other aboriginal peoples were often contentious, but always impressive. Author Nicholas Thomas, drawing on twenty years of research, renders Cook accessible to today's readers by presenting him as neither hero nor villain.

Thomas is a professor of anthropology at the University of London. A native of Sydney, Australia, he has traveled extensively in the course of his research in the Pacific, and has curated several exhibitions on the history, art, and culture of Oceania.

MEMBERS' SPECIAL PROGRAMS

Art of the Hall of Ocean Life Dioramas

Wednesday, October 1, or
Wednesday, October 8 MT1003A
6:30 p.m.
$30

The newly renovated Milstein Family Hall of Ocean Life is more spectacular than ever—a fully immersive marine environment with video projections, interactive computer stations, new marine ecosystem displays, and restored ocean dioramas. Join Steve Quinn, Senior Project Manager in the Department of Exhibitions, and learn about the extraordinary team of curators and artists who transformed this hall into a one-of-a-kind showcase for the latest marine research.

Mexican Holiday Skeletons

Thursday, October 9 MK100903
6:30–8:30 p.m.
Rose Center Classroom
$35 (includes materials)
Limited to 25 adults

The Day of the Dead is a traditional Mexican holiday when families remember and honor their ancestors by creating skeleton images in many shapes and forms—from ice cream vendors to mermaids. Join Pamela Popeson and create your own skeleton figurine in the spirit of El Día de los Muertos. Participants are encouraged to bring their own objects to personalize their skeletons.

Exploring the Hall of Vertebrate Origins with Richard Ellis

Tuesday, October 21 MT102103
6:30 p.m.
$30

Richard Ellis, a Research Associate in the Division of Paleontology and author of *Sea Dragons*, leads this after-hours tour of the Hall of Vertebrate Origins. This hall tells the story of the proliferation of vertebrates from the oceans and onto land over more than 500 million years. Highlights include the massive armored early fish *Dunkleosteus*, a 50-foot-long shark, and a flying reptile with a wingspan of 40 feet.

MEMBERS' CHILDREN'S PROGRAMS

R. Mickens/AMNH

Aquanaut Adventures

Sunday, August 24 MC082403
10:30 a.m.–12:30 p.m.
Rose Center Classroom
$40/pair

Whether you're seeking fish, sharks, and whales, or more exotic specimens such as coral, join us for an "undersea" voyage in the newly renovated Milstein Family Hall of Ocean Life. Afterward, return to the classroom to create your favorite sea creatures. Museum Volunteer June Myles leads this workshop. *(Ages 5–7, each child with one adult)*

For tickets, call 212-769-5200 or visit www.amnh.org. All Members' programs require advance registration.

The famous blue whale in the Milstein Family Hall of Ocean Life | D. Finnin/AMNH

Blue Whale Diorama

Sunday, September 21 MC092103
10:30 a.m.–12:00 p.m. (Ages 5–7)
1:30–3:00 p.m. (Ages 8 and up)
Rose Center Classroom
$28

Taking inspiration from the famous blue whale in the Milstein Family Hall of Ocean Life, children make their own blue whale "diorama" to take home. Participants will create a marine habitat complete with ocean-dwelling creatures while they learn fun facts about the creatures that live in the sea.

Rocking with Geology

Sunday, October 5 MC100503
10:30 a.m.–12:00 p.m. or
1:30–3:00 p.m.
Rose Center Classroom
$28

Earth's inner core, made of iron and nickel, is hotter than the surface of the Sun. In this workshop, aspiring geologists will learn about the different layers of the Earth and how to "read" rocks, and will examine mineral specimens in their natural form. Arthur Horan, Department of Education, leads this workshop. *(Ages 5–8)*

African Landscapes

Sunday, October 19 MC101903
10:30 a.m.–12:30 p.m.
Rose Center Classroom
$40/pair

Embark on a Museum "safari" visiting the rain forest, savanna, and desert of Africa, and encountering animals such as lions, hyena, and elephants. The trip will end in the classroom where participants will create their own miniature dioramas. Monica Hidalgo, formerly of the Department of Education, leads this workshop. *(Ages 5 and 6, each child with one adult)*

FREE HALL TOURS

Climbing the Family Tree

Saturday or Sunday,
August 9 or 10 MT0803
4:00 p.m.
Free (Registration required)

Ever wondered about the progression from sea creatures to our species, *Homo sapiens*? Take a trip through the halls and discover the fascinating journey of our evolutionary past. Museum Tour Guide Marjorie Kagan leads this tour.

Fun Tour for Parents and Kids

Saturday or Sunday,
September 20 or 21 MT0903
4:00 p.m.
Free (Registration required)

Introduce your favorite Museum dioramas to your children, or discover them together for the first time. Museum Tour Guide Berna Villiers leads adults and children alike on an adventure to discover dinosaurs, the blue whale, penguins, and much more!

T. Rex: From Teeth to Tail

Saturday or Sunday,
October 18 or 19 MT1003B
4:00 p.m.
Free (Registration required)

Ever since the Museum discovered the world's first *Tyrannosaurus rex* a hundred years ago, this dinosaur has seized the public's imagination, virtually defining what a dinosaur is for most people. Join Museum Tour Guide Christian Waters to learn just how tough life was for *T. rex* 65 million years ago and find out why it's more closely related to a chicken than it is to most other dinosaurs.

PREVIOUSLY LISTED

The "Bone Wars" Expedition

Friday, July 18 MO071803
9:00 a.m.–5:00 p.m.
$75

Travel to Yale University's Peabody Museum of Natural History, and go behind the scenes in the vertebrate paleontology labs with Marilyn Fox, lab supervisor and contributor to the renovated dinosaur halls at the AMNH. Museum Tour Guide Suzi Zetkus leads this trip. Fee includes transportation.

Ecology of Iron Mining in the Hudson Valley

Tuesday, July 22 MO072203
9:00 a.m.–5:00 p.m.
$75

Join Sacha Spector, Invertebrate Laboratory Manager, Center for Biodiversity and Conservation, for an expedition to examine the impact of 18th- and 19th century iron mining on the ecology of this region. Fee includes transportation.

Erie Canal

Saturday–Sunday,
August 16–17 MO081603

Join Sidney Horenstein, Coordinator of Environmental Programs, and discover the extraordinary natural history of the Erie Canal. This expedition begins at the Erie Canal Museum and concludes with a relaxing luncheon cruise down the Erie Canal aboard the *City of Syracuse*.

$275 per person double occupancy; $335 per person single occupancy. Fee includes transportation, one lunch, and one night's accommodation at the Hotel Syracuse.

Special Events at the Museum

13th Annual Environmental Lecture and Luncheon

Food for Thought: Human Needs and a Sustainable Future
April 10, 2003

President Ellen V. Futter (second from l.) with moderator Anna Quindlen (second from r.) and panelists (l. to r.) Melanie L. J. Stiassny, Calvin Trillin, and David Tilman | D. Finnin/AMNH

President Futter and moderator Anna Quindlen | D. Finnin/AMNH

(L. to r.) Event cochairmen Mary Solomon and Connie Spahn with President Futter and Susan Rudin | D. Finnin/AMNH

The Winter Dance Celebrates the Secrets of the Animal Kingdom

March 6, 2003

Kirk Spahn and Deborah Freidman in the Hall of Asian Mammals | C. Chesek/AMNH

Edmond and Marielle Safra (event cochair) in the Hall of Asian Mammals | D. Finnin/AMNH

Tinsley Mortimer and Dabney Mercer in the Hall of Asian Mammals | C. Chesek/AMNH

Junior Council Events

Ariel Flores (r.) and friend at a special viewing of Vietnam, *April 3, 2003* | C. Chesek/AMNH

Junior Council members at a special viewing of Einstein, *December 11, 2002* | C. Chesek/AMNH

Junior Council members in the Hall of Biodiversity after a screening of Kilimanjaro: To the Roof of Africa, *September 26, 2002* | C. Chesek/AMNH

Save the Date for the Tenth Annual Family Party

A benefit event to support the American Museum of Natural History
Wednesday, October 22, 2003
5:30 to 8:00 p.m.

A fun-filled adventure for children of all ages with: dinosaur discoveries; live mammals, reptiles, and butterflies; science experiments; microscope mania; and much more!

Chairmen: Tory Burch, Katie Couric, Aerin Lauder Zinterhoffer, Liz Lange, Nicole Miller, Perri Peltz, Jane Rosenthal, and Jessica Seinfeld

For more information, please call 212-496-3495 or visit the Museum's Web site at www.amnh.org.

Join the Junior Council

The **Junior Council** is a Museum Membership group of young philanthropic New Yorkers, 22 to 39 years old. Members enjoy an intimate view inside the Museum's collections, activities, and exhibitions. The Junior Council is a great way to meet people with similar interests while previewing the latest, most talked-about exhibitions and going behind the scenes at one of the world's greatest museums.

Enrollment begins in August for a year-long program of activities. For more information, visit www.amnh.org/join/junior_council or contact Beth Balentine at 212-769-5165 or balentin@amnh.org.

VIETNAM
A GIFTED IDEA.

These handmade Vietnamese crafts make perfect one-of-a-kind gifts! The beautiful rice bowl and teapot are from the village of Bat Trang, famous for its unique ceramics. The fox and duck water puppets are used in traditional Vietnamese theater performances. For more information or to place orders, please call: 212-769-5150.

GET AN ADDITIONAL 10% OFF AT THE VIETNAM MARKETPLACE NOW THROUGH SEPTEMBER 30TH!

Offer good only at the Vietnam Marketplace, located at the 77th Street lobby. Call 212-769-5150 for information or to place orders.

AMERICAN MUSEUM of NATURAL HISTORY

WWW.AMNH.OR

Members' Survey

R. Mickens/AMNH

DEAR MEMBER:

We appreciate your loyal support of the American Museum of Natural History and would like to learn more about your visits to the Museum. Our purpose in gathering this information is to find new ways to improve and enrich your experiences at AMNH. 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 pair of complimentary IMAX® tickets, which you may use on your next visit to the Museum.

How long have you been a Member of the Museum?
☐ Less than 1 year ☐ 1–3 years ☐ 3–5 years ☐ 5–10 years
☐ More than 10 years

How often do you visit the Museum in a year?
☐ 1–2 visits ☐ 3–4 visits ☐ 5–10 visits ☐ More than 10 visits

What would bring you to the Museum more frequently?

_____

When you visit, how many people usually accompany you?
# of adults _____ # of children _____

If children accompany you, what are their ages?
(check all that apply)
☐ 3 or younger ☐ 4–6 ☐ 7–9 ☐ 10–12 ☐ 13–17
☐ 18 or older

What is your age?
☐ 18–24 ☐ 25–34 ☐ 35–44 ☐ 45–54 ☐ 55–64 ☐ 65 or over

What is the average length of your visits?
☐ 1 hour or less ☐ 1–2 hours ☐ 3–4 hours ☐ 4 hours or more

Which of the following special exhibitions did you visit?
(check all that apply)
☐ *Body Art: Marks of Identity*
☐ *The Butterfly Conservatory*
☐ *Einstein*
☐ *Endangered! Exploring a World at Risk*
☐ *Fighting Dinosaurs: New Discoveries from Mongolia*
☐ *The Genomic Revolution*
☐ *The Nature of Diamonds*
☐ *Pearls*
☐ *Vietnam: Journeys of Body, Mind & Spirit*

Do you attend educational programs, lectures, or workshops at the Museum?
☐ Yes ☐ No

Have you ever visited our Web site, www.amnh.org?
☐ Yes ☐ No
Optional: Provide your email address if you would like it added to your confidential Membership record and wish to receive special email newsletters from AMNH only.
Email address: _____

Do you have children under 18 living in your household?
☐ Yes ☐ No

If yes, what are their ages? (check all that apply)
☐ 3 or younger ☐ 4–6 ☐ 7–9 ☐ 10–12 ☐ 13–17

Are you or is any member of your household professionally involved in the following? (check all that apply)
☐ Education ☐ Science ☐ The arts

We welcome your comments about how to improve any aspect of Membership benefits or services!

_____

_____

_____

_____

Thank you very much for taking the time to complete this questionnaire. Please mail it to the Membership Office, American Museum of Natural History, Central Park West at 79th Street, NY, NY 10024, or drop it off at any Membership Desk at the Museum.

General Information

HOURS

Museum: Daily, 10:00 a.m.–5:45 p.m.
The Rose Center remains open until 8:45 p.m. on Friday. The Museum is closed Thanksgiving and Christmas.
Space Show: Every half hour, Sunday–Thursday and Saturday, 10:30 a.m.–4:30 p.m., Friday, 10:30 a.m.–7:30 p.m.
Research **Library:** Tuesday–Friday, 11:00 a.m. –4:00 p.m.
Hours are subject to change.

ENTRANCES

During Museum hours, visitors may enter through the subway (lower level), Central Park West at 79th Street (second floor), and the Rose Center/81st Street entrances. The 77th Street and Weston Pavilion/Columbus Avenue entrances are closed until further notice.

TRANSPORTATION AND PARKING

Subway: B (weekdays) or C to 81st Street; 1 or 9 to 79th Street
Bus: M7, M10, M11, or M104 to 79th Street; M79 to Central Park West
Parking Garage: Open daily, 8:00 a.m.–11:00 p.m.; enter from West 81st Street. Members receive a discounted rate of $10 if entering after 4:00 p.m. To receive this rate, you must have your parking ticket validated at the Security Desk (first floor, Central Park West entrance). For more information, call 212-313-7278.

FOOD SERVICE

Museum Food Court: Daily, 11:00 a.m.–4:45 p.m. (*lower level*)
Chocolate Café: Daily, 11:00 a.m.–4:45 p.m (*fourth floor*)
Big Dipper Ice Cream Café: Daily, noon–4:45 p.m. (*lower level*)
Café Pho: Hours as posted (*first floor*)
Hours are subject to change.

MUSEUM SHOP

The following Museum Shops are open during regular Museum hours:
Main Shop (*first and second floors*)
Dinostore and More (*fourth floor*)
Planetarium Shop (*Rose Center, lower level*)
Satellite Shop (*Rose Center, first floor*)
Einstein Shop (*fourth floor*)
Vietnamese Marketplace (*first floor*)
Chocolate Shop (*third floor*)

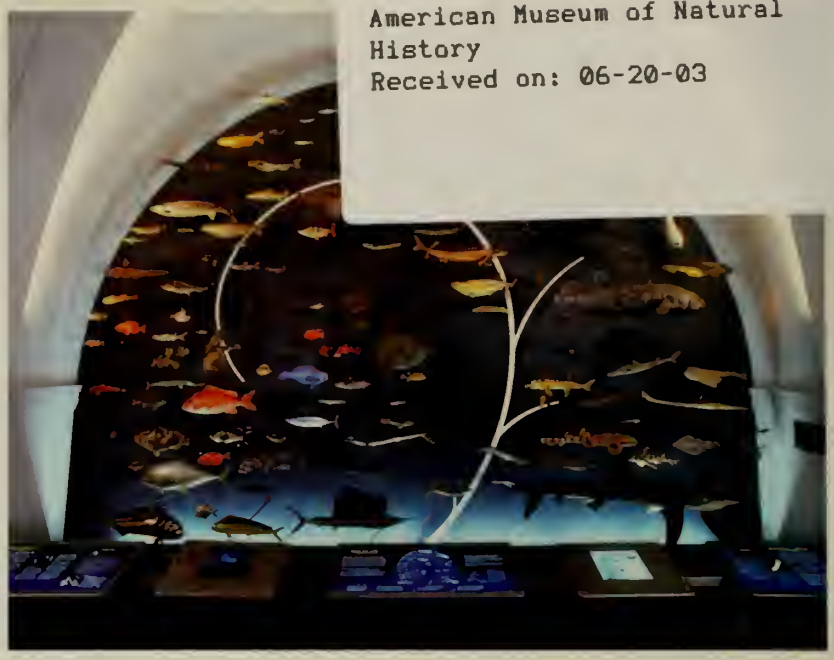
PHONE NUMBERS

Museum Information	212-769-5100
Membership Office	212-769-5606
Planetarium Information	212-769-5900
Member Birthday Parties	212-769-5606
Education Department	212-769-5310
Planned Giving Office	212-769-5119
Discovery Tours	212-769-5700
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
Web Site	www.amnh.org

AMNH eNotes delivers the latest information on Museum programs and events to you via email. Visit www.amnh.org to sign up today!

AMERICAN MUSEUM OF NATURAL HISTORY

Rotunda.
American Museum of Natural History
Received on: 06-20-03



The Tree of Vertebrate Life display in the newly opened Milstein Family Hall of Ocean Life | D. Finnin/AMNH

Membership Department
Central Park West at 79th Street
New York, New York 10024-5192
www.amnh.org

rotunda

OL. 28 NO. 6 DECEMBER 2003

MEMBERS' NEWSLETTER

170
152
28
6
2003

AMERICAN MUSEUM OF NATURAL HISTORY

Museum Notes

Inscribed sandstone eye-idol (stele). Petra, circa first century A.D. Department of Antiquities, Amman, Jordan. This idol, a stone block with stylized human face, represents the chief goddess of Petra, Al-Huzza. | © Cincinnati Art Museum, Photographer: Peter John Gates FBIPP, ARPS, Ashwell, UK

CURRENTLY ON VIEW

Petra: Lost City of Stone

Through July 6, 2004
Gallery 4

Literally carved from the red sandstone cliffs in the Jordan Rift Valley is the ancient city of Petra, now mostly in ruins. *Petra: Lost City of Stone* tells the story of this thriving metropolis at the crossroads of the ancient world's major trade routes and of the technological virtuosity that allowed the Nabataeans to build and maintain Petra in the harsh desert environment. Featuring some 200 objects including colossal stone sculptures and architectural elements traveling from Jordan to the United States for the first time, this is the most complete portrait ever mounted of the amazing city of Petra.

In New York, Petra: Lost City of Stone *is made possible by Banc of America Securities and Con Edison.*

The American Museum of Natural History also gratefully acknowledges the generous support of Lionel I. Pincus and HRH Princess Firyal and of The Andrew W. Mellon Foundation.

This exhibition is organized by the American Museum of Natural History, New York, and the Cincinnati Art Museum, under the patronage of Her Majesty Queen Rania Al-Abdullah of the Hashemite Kingdom of Jordan. Air transportation generously provided by Royal Jordanian.

The Bedouin of Petra

Through July 6, 2004
Akeley Gallery

Photojournalist Vivian Ronay's evocative color photographs taken between 1986 and 2003 document the Bedoul group of five sedentary Bedouin tribes living near the archaeological site of Petra in Jordan.

This exhibition is made possible by the generosity of the Arthur Ross Foundation.

Seasons of Life and Land: Arctic National Wildlife Refuge

Through March 7, 2004
IMAX® Gallery

This exhibition, focusing on the interdependent relationship of land, water, wildlife, and humanity, features over 40 large-format color photographs by Subhankar Banerjee, a conservationist who spent two years in Alaska documenting the biodiversity and indigenous cultures of the Arctic Refuge.

Caribou in the Arctic National Wildlife Refuge | © Subhankar Banerjee

The Butterfly Conservatory

Through May 31, 2004

The butterflies are back! Mingle with more than 500 live, free-flying tropical butterflies in an enclosed habitat that approximates their natural environment with lush vegetation and live flowering plants.

Admission is by timed entry only. Tickets are $9.50 for Members and $5.50 for Members' children.

The Butterfly Conservatory *is made possible through the generous support of Bernard and Anne Spitzer.*

Bicycle stacked with ceramics from the exhibition Vietnam. | M. Carlough/AMNH

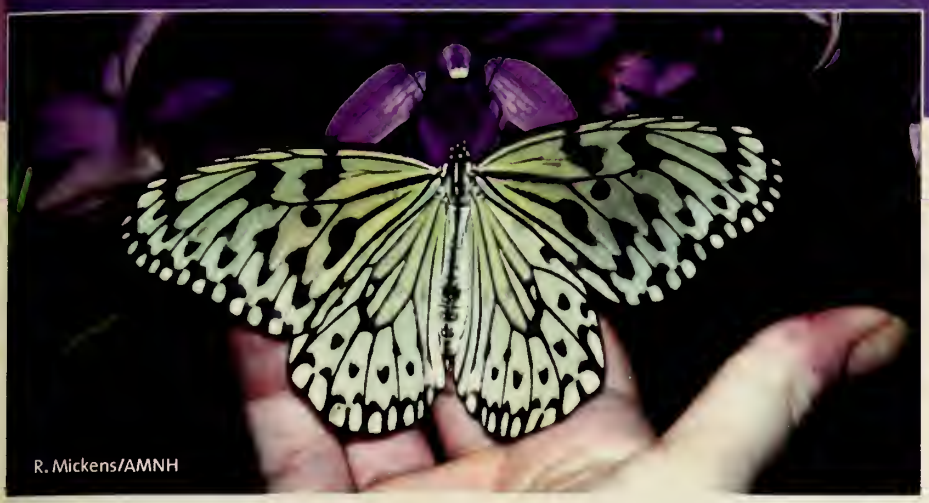
Vietnam: Journeys of Body, Mind & Spirit

Through January 4, 2004
Gallery 77

This comprehensive exhibition on Vietnamese life, the first in the United States, presents Vietnamese culture in the early 21st century. As suggested by the title, the visitor is invited to "walk in Vietnamese shoes" and explore daily life among Vietnam's more than 50 ethnic groups. The objects on display, supplemented by photographs and video footage, range from the traditional to the contemporary, and often merge the two, reflecting the dynamic process that has created modern Vietnamese culture.

Organized by the American Museum of Natural History, New York, and the Vietnam Museum of Ethnology, Hanoi. This exhibition and related programs are made possible by the philanthropic leadership of the Freeman Foundation. Additional generous funding provided by the Ford Foundation for the collaboration between the American Museum of Natural History and the Vietnam Museum of Ethnology. Also supported by the Asian Cultural Council. Planning grant provided by the National Endowment for Humanities.

(continued on next page)



R. Mickens/AMNH

PLANETARIUM SHOWS

SonicVision

Friday and Saturday, 7:30, 8:30, 9:30, and 10:30 p.m.
Hayden Planetarium Space Theater
$12 ($15 Non-Members)

Get ready for the mind-warping experience of your life! *SonicVision*, created by the American Museum of Natural History in association with internationally renowned performer Moby and MTV2, is a digitally animated alternative rock music show. The mix, specially created by Moby, includes music by Radiohead, The Flaming Lips, Queens of the Stone Age, U2, David Bowie, Moby, and more. The music explodes to life in a dazzling sequence of video animations taking viewers on a fantasical gravity-defying ride.

SonicVision *is made possible by generous sponsorship and technology support from Sun Microsystems, Inc.*

The Search for Life: Are We Alone?

This Space Show will whisk you on an incredible journey from the lightless depths of Earth's oceans to newly discovered planets on a quest for worlds that might support life.

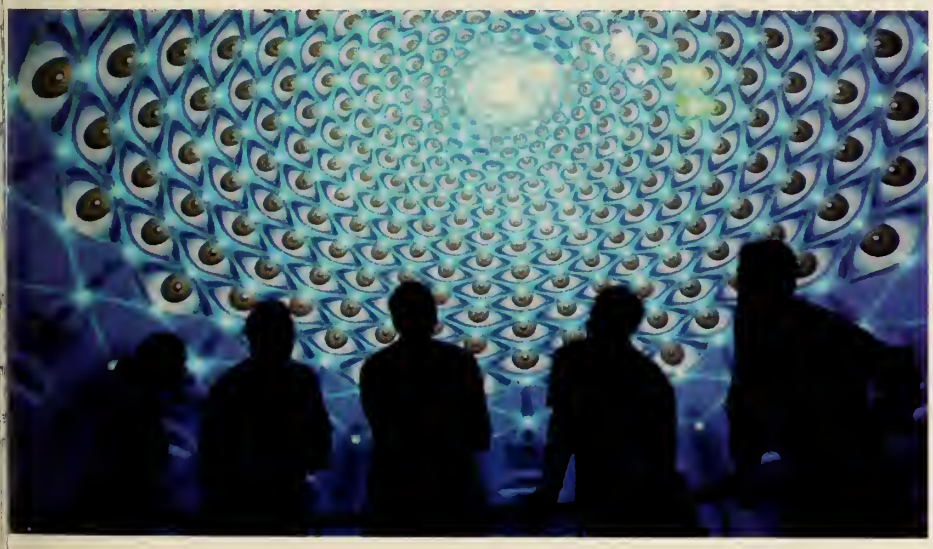
The Search for Life: Are We Alone? *is made possible through the generous support of Swiss Re.*

Passport to the Universe

The original Hayden Planetarium Space Show, narrated by Tom Hanks, is back by popular demand! Learn your "cosmic address" and take a ride through a black hole.

The Space Shows were developed by the American Museum of Natural History in collaboration with the National Aeronautics and Space Administration (NASA). Written by Ann Druyan and Steve Soter. Music by Stephen Endelman.

SonicVision *in the Hayden Planetarium Dome* | D. Finnin/AMNH



rotunda

ISSN 0194-6110
USPS Permit #472-650
Vol. 28, No. 6, December 2003

Lewis W. Bernard, *Chairman*
Ellen V. Futter, *President*
Lynn DeBow, *Senior Vice President for Development and Membership*
Rosemary Caulk, *Director of Membership*

Rotunda is published bimonthly, except for a combined issue in July/August/September and a single issue in December, by the Membership Office of the American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192. Phone: 212-769-5606. Web address: www.amnh.org. Museum Membership of $55 per year and higher includes a subscription to *Rotunda*. ©2003 American Museum of Natural History. Periodical postage paid at New York, NY, 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 USPS 472-650). Date of filing: October 1, 2003. Frequency of issue: Bimonthly except for a combined issue in July/August/September and a single issue in December. Number of issues published annually: 6. Annual subscription price: Museum Membership of $55 a year or higher. 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: Membership Office, American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192. Editor: Karen Miller. Owner: American Museum of Natural History. Known bondholders, mortgage, and other security holders: None. The purpose, function, and nonprofit status of this organization and the exempt status for federal income tax purposes have not changed during the preceding 12 months. Extent and nature of circulation: (A) signifies average number of copies of each issue during preceding 12 months, and (B) signifies average number of copies of single issue published nearest to filing date. Total number of copies (A) 60,000 (B) 60,000. Paid circulation through Dealers and Carriers, Street Vendors, Counter Sales, and Other Non-USPS Paid Distribution (A) and (B): None. Mail subscription: (A) 56,309 (B) 57,897. Free distribution by mail: (A) 190 (B) 285. Free distribution outside of mail: (A) 3,400 (B) 1,818. Total distribution: (A) 59,899 (B) 60,000. Copies not distributed: (A) 101 (B) None. 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) Rosemary Caulk

Printed by Brown Printing, E. Greenville, Pennsylvania.

Cover: *The Lagunillas, Bolivia, museum, developed with assistance from the CBC, is a source of community pride. Article on page 6.* | COBIMI

(continued from previous page)

Look Up!

The Rose Center presents a star show just for kids! An engaging host will introduce young visitors, ages 3 to 5, to the wonders of the night sky, all under the Hayden Planetarium dome. Children will learn through songs, storytelling, the spectacular Zeiss star projector, vivid visuals, and more.

Saturdays and Sundays, 10:15 a.m. Members and Members' children, $5; Adults and children, $10. All children must be accompanied by an adult.

IMAX® MOVIES

Samuel J. and Ethel LeFrak Theater
Call 212-769-5100 for show times.

India: Kingdom of the Tiger

Journey across India, a breathtaking land shaped by myriad cultures, customs, and traditions, and meet its stately ambassador, the mighty Bengal tiger.

Volcanoes of the Deep Sea

Travel to the most remote and hostile environment on Earth, on the deep sea floor, where strange creatures live in extreme temperatures and impenetrable darkness. Learn why scientists are searching here for clues to the emergence of life on Earth, as well as the possibility of life elsewhere.

AND DON'T MISS...

Celebrate With a
DINOSAUR
BIRTHDAY PARTY
By Linda Kaye's Partymakers

Celebrate your Child's Birthday at the Museum

Two hundred million years ago, dinosaurs ruled the earth, only to disappear and leave only fossils behind. The Expert Paleontologist birthday child and friends will don 3-D glasses and our 3-D art will allow them to see how dinosaurs might have leaped forward. Exploring the fossil halls, guests will learn how paleontologists use such evidence as tracks and bones to unravel the mysteries of these tremendous animals.

In addition to Dinosaur Discoveries, Linda Kaye's Birthdaybakers Partymakers presents three other exciting theme parties at the Museum: **Global Mysteries, Cosmic Blastoff,** and **Safari Adventure.** Parties are geared for children ages 4 and up and are available seven days a week to Contributor and higher-level Members only. For more information and to request a date, see our online brochure at www.partymakers.com or call Linda Kaye's Partymakers at 212-288-7112.

Offer from Restaurant Associates

This December, Restaurant Associates is pleased to offer Museum Members a complimentary old-fashioned hot chocolate (a $1.95 value) with the purchase of any $3.95 dessert. Dessert choices include chocolate yogurt bundt cake, apple tart, passion raspberry tart, and more. Also, look for other seasonal treats throughout the holidays.

As always, Members receive a 15% discount in the Museum's dining facilities—simply present your Membership card at the start of your transaction.

Dave Grover and the Big Bear Band perform at the Members' Family Holiday Party | D. Finnin/AMNH

Members' Family Holiday Party

Saturday, December 6, 2003
1:00–4:00 p.m. MP120603

Join us in the newly renovated Milstein Family Hall of Ocean Life for holiday activities and live entertainment. Children will sing along with award-winning trio Dave Grover and the Big Bear Band as they perform holiday songs.

The event is free and open to Family and higher-level Members only. Members must register in advance by calling 212-769-5200.

Members Help the Museum—and Themselves

Increasingly, AMNH Members and friends are discovering a way of providing for the Museum and for their own future: a Charitable Gift Annuity, which offers several important benefits:

- A fixed annuity for life, part of which is tax-free
- An income tax deduction on a portion of the gift
- Avoidance of capital gains tax when the gift is funded with appreciated stock

Patrons Circle Member Jack Bierwirth funded a Gift Annuity at age 80 that will provide him annual payments at 8%. When asked why he loves the Museum, Jack said, "It reaches out to *everybody*. Exciting things are going on there that touch us at many points throughout our lives." Jack advises fellow AMNH Members, "If you want to make a handsome long-range gift, it's much more satisfying to see it benefit the Museum now. And, you nail down an annual income for life."

Linda and Bill Starzman | Courtesy of Linda and Bill Starzman

In addition to including the Museum generously in their wills, Linda and Bill Starzman, at ages 57 and 53, set up a Deferred Gift Annuity that will begin payments nine years later when they reach ages 66 and 62. Because the Museum has nine years to invest their gift before their annuity begins, the Starzmans will receive their payments at the enhanced rate of 9.5% of their original gift. Linda says, "Contributing the Deferred Gift Annuity gave us the satisfaction of strengthening our bond to the Museum well beyond our annual Membership. We're especially pleased that our future gifts will support research related to the environment."

Jack Bierwirth | Courtesy of Jack Bierwirth

For further information on Gift Annuities, please call Maureen Agostini at 212-769-5157.

Looking for the Perfect Gift this Holiday Season?

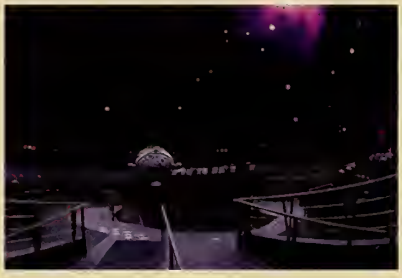
Link your name forever with the American Museum of Natural History by naming a Seat in the Stars in the Hayden Planetarium Space Theater or a Seat for Science in the LeFrak IMAX® Theater. Your generous contribution in honor or in memory of a loved one or in celebration of a special occasion will help to advance the Museum's twin missions of science and education.

Each year, the Museum's 200 scientists conduct research in the Museum's state-of-the-art laboratories and on over 100 field expeditions across the globe. The range of the Museum's core scientific areas offers an unparalleled research breadth. The latest discoveries are translated into world-class exhibitions, educational and public programming, and halls that inspire millions of visitors annually.

Roughly half of the Museum's visitors are school-age children. Over 400,000 visit in school groups, many from schools and community centers with limited resources. In addition, over 5,000 teachers, science coordinators, and school administrators take advantage of the Museum's professional development programs, further extending the Museum's ability to reach children. By serving as a place of discovery to children from all backgrounds and of all ages, the Museum endeavors to inspire a passion for lifelong learning and a sense of respect for, curiosity about, and interest in the world.

Sponsoring a Seat in the Stars or a Seat for Science enables the Museum to continue this important work. An inscribed plaque of your choosing will recognize your generosity. This timeless gift is ideal for the holidays. Please call 212-769-5207 for more information.

LeFrak IMAX® Theater | D. Finnin/AMNH



Hayden Planetarium Space Theater | D. Finnin/AMNH

Community-Based Conservation in Bolivia

Linking Cultural Traditions and Biodiversity

In Bolivia, the work of the Museum's Center for Biodiversity and Conservation (CBC) integrates research, professional development, and perhaps most importantly, community involvement in conservation efforts. Located in the heart of the tropical Andes, Bolivia encompasses a rich diversity of ecosystems, from glacial ice fields to rain forests to grasslands, and very high levels of biodiversity. The CBC works in Bolivia's protected areas—areas that have been set aside by the government for conservation but that also contain rapidly growing human communities.

The CBC works, under the leadership of Outreach Manager Meg Domroese, with Bolivian partners to develop programs that engage local communities in conservation. A small grants program funds community conservation projects and provides technical support and scientific resources to build community expertise. These projects showcase the extraordinary traditions of the people of the Andes whose lives are intimately tied to nature. Whether for agriculture, textile production, home construction, or traditional medicine, local communities depend upon natural resources for survival. Moreover, the natural world plays a prominent role in spiritual traditions, including reverence for Pachamama or Mother Earth.

Project leader Claudia Mamani demonstrates traditional weaving. | S. Davis

The community of Lagunillas | COBIMI

Several innovative community projects are under way, including the creation of museums (or "interpretive centers"), ecotourism facilities, trails for tourists that highlight biodiversity, informational outreach materials, and the implementation of waste management initiatives. In the community of Lagunillas in the Apolobamba protected area, community members worked with the CBC and its Bolivian partners to develop exhibits for their newly refurbished community museum. With a recently constructed tourist hostel and proximity to a popular trekking route, Lagunillas is an attractive location for a community museum.

> ***"Projects such as the museum in Lagunillas have increased local support for conservation."***

Working to develop the exhibits, the team was resourceful in finding locally available materials. For example, the wooden sawhorses left over from painting the building were transformed into posts for exhibit panels. An old door serves as a panel and introduces the concept that the community museum at Lagunillas is a "doorway" to understanding the natural and cultural history of the area.

After work began, a stream of residents came to the museum to contribute treasures they had in their homes—agricultural products (such as varieties of potatoes and corn), textiles, pottery, and antique tables. The exhibits that were created from these items show many aspects of traditional and contemporary life in the region, highlighting the importance of natural resources for sustaining the livelihood of the local population.

"The community groups we work with in Bolivia have great pride in their culture, and these projects allow them to let visitors see how their natural and cultural histories are vitally intertwined," said Ms. Domroese. "We've found that projects such as the museum in Lagunillas have increased local support for conservation, and in turn have enabled participants to apply what they learn to raise the awareness of others." Ms. Domroese is also working on a photography exhibition on

Edgar Palma with panel illustrating the ecology of the lake for which Lagunillas is named | COBIMI

Bolivia's biodiversity that will highlight the participation of communities living within protected areas.

Long-term conservation success depends on local communities, and the CBC's work in Bolivia reflects its strong belief that people—themselves major catalysts in the rapid loss of biodiversity—can become participants in its conservation.

To learn more about the CBC's work in Bolivia please visit research.amnh.org/biodiversity/center/programs/bolivia.html.

The CBC's Bolivian partners are the Museo Nacional de Historia Natural, the Colección Boliviana de Fauna in La Paz, and the Museo de Historia Natural Noel Kempff Mercado in Santa Cruz.

The CBC's outreach and education activities in Bolivia have been generously supported by the Weeden Foundation, the U.S. Fish and Wildlife Service, and the American Embassy in La Paz.

Ipacas are important in the Andes for their wool. | . Sterling/CBC

Wishing You Happy and Greener Holidays

The holidays are a wonderful time for giving and receiving, and that extends to the environment as well! It is estimated that, in the period between Thanksgiving and New Year's Eve, Americans' average trash production increases 25%. There are many ways to spend a more environmentally friendly holiday season while also reducing the stress of the season on you and your family. Here are some tips for a greener and simpler season from the Museum's Center for Biodiversity and Conservation:

- Homemade baked goods are always welcome gifts—and they never end up in a landfill! Indulge friends and relatives with your favorite recipes for cookies, cakes, jams, sauces, pickled vegetables, or other goodies.
- Another great edible gift is mail-order organic food. You'll be supporting organic farmers as well as giving a gift of fresh, healthy food. You can also mail-order organic meats, such as a holiday ham, from independent family farmers.
- Give the gift of your time, such as an IOU for a night of babysitting or an hour or two of yard work. Less time-consuming gifts include a donation to a charity, movie or concert tickets, or a certificate for dinner at a favorite restaurant.
- Look for greeting cards made from recycled paper. For wrapping paper, create a unique look with pictures from last year's calendar, maps, or magazines. You can also reuse gift bags.
- If you have a holiday tree, string edible items like popcorn or cranberries for ornaments, rather than tinsel (birds in the backyard will love these after Christmas is over). Check with the NYC Department of Sanitation for pick-up days for the tree-mulching program (http://www.nyc.gov/html/dos/home.html).

Here are some resources for further information on greening your holidays:

42 Ways to Trim Your Holiday Wasteline
http://www.cygnus-group.com/use-less-stuff/ULSDAY/42ways.html

Holiday Waste Prevention Tips
http://www.anr.state.vt.us/dec/wastediv/csc/holiday.htm

Recycled Card Program
http://stjudesranch.org/Content/cardprogram.asp

Simplify the Holidays
http://www.newdream.org/holiday/home.html

The Great Green Gift-Giving Guide
http://nrdc.org/cities/living/ggift.asp

Members' Programs

Programs are available to Members only, unless a non-Member's price is given.

BEHIND-THE-SCENES TOUR

Behind the Scenes in Ornithology

Tuesday, January 13 MB011304
6:30, 7:00, or 7:30 p.m.
$30

Take advantage of this opportunity to view portions of the largest bird collection in the world, which includes some species that are now extinct. Tour the storage facilities with Scientific Assistant Peter Capainolo and view specimens that have been prepared for study. Later meet Collections Manager Paul Sweet and learn why collections such as this are so important for conservation and scientific research.

MEMBERS' CHILDREN'S PROGRAMS

Riches of the Coral Reef

Two Saturdays,
January 17 and 24 MC011704
10:30 a.m.–12:00 noon
Rose Center Classroom
$55/pair

A coral reef is home to thousands of soft-bodied organisms that create their "city" from minerals in the water. In this two-part workshop, participants will construct a model of a coral reef to bring home while learning about life in a reef ecosystem. *(Ages 5–7, each child with one adult)*

The Andros Coral Reef diorama depicts a vast and complex ecosystem in the Bahamas. | D. Finnin/AMNH

Dino Skins

Sunday, January 18 MC011804A
10:30 a.m.–12:00 noon
Rose Center Classroom
$28

In this workshop, children will learn what scientists know about dinosaur skin (and how they know it). Later, they'll piece together a plaster cast of dinosaur skin and paint it using scientific guesswork and current theories to determine the colors and patterns. *(Ages 5–7)*

T. rex Teeth

Sunday, January 18 MC011804B
1:30–3:00 p.m
Rose Center Classroom
$28

How do paleontologists know whether a dinosaur ate meat or plants? In this workshop children examine teeth from different animal species and discover what can be learned from a fossil fragment. They will reconstruct and paint plaster-cast *T. rex* teeth to take home. *(Ages 8 and up)*

T. rex *tooth* | Rick Edwards/AMNH

Kwanzaa 2002 at the Museum | D. Finnin/AMNH

KWANZAA 2003

Sankofa: Honor the Past, Embrace the Future

Saturday, December 27
12:00 noon–6:00 p.m.
Milstein Family Hall of Ocean Life

Kwanzaa, from the Swahili for "first fruits," is an African-American cultural holiday that celebrates family and community. Observed from December 26 through January 1, it is based on the agricultural celebrations of Africa and reinforces the *Nguzo Saba*, or the Seven Principles: *Umoja* (Unity), *Kujichagulia* (Self-Determination), *Ujima* (Collective Work and Responsibility), *Ujamaa* (Cooperative Economics), *Nia* (Purpose), *Kuumba* (Creativity), and *Imani* (Faith). This soulful celebration includes activities and performances for the whole family! For details, visit www.amnh.org/kwanzaa or call 212-769-5315.

Global Weekends are made possible, in part, by The Coca-Cola Company. The American Museum of Natural History wishes to thank the May and Samuel Rudin Family Foundation, Inc., the Tolan Family, and the family of Frederick H. Leonhardt for their support of these programs.

For tickets, call 212-769-5200 or visit www.amnh.org. All Members' programs require advance registration.

FREE HALL TOUR

Milstein Family Hall of Ocean Life

Saturday, January 17 MT011704
Sunday, January 18 MT011804
4:00 p.m.
Free (Registration required)

The Museum's Milstein Family Hall of Ocean Life reopened last May after a major renovation. The classic dioramas on the lower level were cleaned and overhauled, and eight completely new habitat exhibits grace the mezzanine level. Exhibition designers fabricated over 600 new models, ranging from tiny green bubble algae to computerized bioluminescent fishes and invertebrates. Join Museum Tour Guide Marjorie Kagan for an "ocean cruise" through this truly magnificent hall.

AMNH Photo Studio

PREVIOUSLY LISTED

Dreidel Workshop

Sunday, December 14 MC121403
10:30 a.m.–12:00 noon
1:30–3:00 p.m.
Rose Center Classroom
$40/pair

Each year Jews around the world celebrate the tradition of Hannukah with the dreidel. In this workshop participants will learn how to play the dreidel game and will make their own dreidel to take home. Tamar Goelman, Department of Education, leads this workshop. *(Ages 6 and 7, each child with one adult)*

Give a Gift for All Seasons: AMNH Membership

Your friends and relatives can enjoy all the benefits of Membership, including complimentary Museum general admission, a year's subscription to *Natural History* magazine and *Rotunda*, invitations to Members' previews, and discounts in Museum shops and restaurants. Choose the Membership level and we'll do the rest. As a special holiday bonus, we'll include in the gift your choice of either the Museum's beautiful *Explorations 2004* engagement calendar (a $13.95 value, pictured), or *American Museum of Natural History: The Official Guide* (a $7.95 value).

Special offer expires December 31, 2003. Not valid for Members renewing their own Memberships.

1. Please send a one-year Membership at the category indicated to the person below:

❑ Individual $55 ❑ Dual $75 ❑ Family $100 ❑ Contributor $175

Recipient's Name _____

Street _____

City _____ State _____ Zip Code _____

Please include with my gift:

❑ *Explorations 2004* **OR** ❑ *AMNH: The Official Guide*

2. Please send a one-year Membership at the category indicated to the person below:

❑ Individual $55 ❑ Dual $75 ❑ Family $100 ❑ Contributor $175

Recipient's Name _____

Street _____

City _____ State _____ Zip Code _____

Please include with my gift:

❑ *Explorations 2004* **OR** ❑ *AMNH: The Official Guide*

Your Name _____

Street _____ City _____ State _____ Zip Code _____

❑ Enclosed is my check for $ _____ **OR**

❑ Please charge my: ❑ Visa ❑ MasterCard ❑ American Express

Card Number _____ Exp. Date _____ Signature _____

Starry Nights

R. Mickens/AMNH

Live in the Rose Center and on the Air

Starry Nights, the Museum's enormously popular jazz performance series, has livened up the Rose Center for Earth and Space for over three years, and has become a top New York destination. The world's best jazz, accompanied by tapas and beverages under the spectacular sphere of the Hayden Planetarium, makes the first Friday of each month a cool delight.

Now you can catch Starry Nights live even if you can't make it to the Museum for the show. Beginning this past February and continuing every other month, Starry Nights has been broadcast live on WBGO Jazz 88.3 FM, the only full-time jazz station in the New York metropolitan area. The hour-long broadcasts, from 5:30 to 6:30 p.m., are hosted by Gary Walker, WBGO's *Morning Jazz* host for 13 years and winner of the 1996 *Gavin Report* Jazz Radio Personality of the Year award.

WBGO 88.3 FM serves the New York/New Jersey metropolitan area with straight-ahead jazz, blues, and award-winning news and public affairs programming. Noncommercial WBGO is supported by over 14,000 members and has 400,000 weekly listeners. WBGO also streams its broadcast signal to audiences world-wide at www.wbgo.org. It was named Jazz Station of the Year for 2001 by the *Gavin Report* and also is the recipient of the Blues Foundation's Keeping the Blues Alive Award for Achievement in Noncommercial Radio.

Jazz is a genuine American art form that has continued to evolve over the years, sampling and borrowing the sounds and styles of people the world over. The exploration and study of world cultures and their artistic expression is a core part of the Museum's mission. The multicultural jazz presented in Starry Nights is a continuation of this celebration of diverse cultures.

Over 35 jazz groups have appeared since Starry Nights was launched in March 2000, shortly after the Rose Center opened. They include Jimmy Heath, Ray Barretto and New World Spirit, Randy Weston's African Rhythms, Lou Donaldson, Danilo Perez, Chico Hamilton, the Gary Bartz Ensemble, and Paquito D'Rivera. Visitors to Starry Nights have been treated to a wide spectrum of today's best jazz, ranging from Afro-Cuban fusion to Latin and blues rhythms.

Performances on the first Friday of every month include a set from 5:30 to 6:30 p.m. and a second from 7:00 to 8:00 p.m. Visitors can enjoy authentic tapas, sparkling water, sangria, wine, and beer while surrounded by the sounds of hot jazz and the mysteries of the universe in one of New York's most exciting indoor spaces.

Starry Nights *is made possible by Lead Sponsor Verizon and Associate Sponsors CenterCare Health Plan and WNBC-TV.*

FRIDAY, DECEMBER 5

Catch David "Fathead" Newman, either at the Rose Center or live from 5:30 to 6:30 p.m. on WBGO Jazz 88.3 FM.

Pianist Hilton Ruiz performs at Starry Nights | D. Finnin/AMNH

The Shops Proudly Present...

Our exclusive 2003 holiday cards and collectible ornament:

A Gifted Idea

Exclusively ours, these boxed holiday cards and limited edition blown glass ornament were inspired by the Museum and its collections. Cards come 16 to a box with 17 envelopes. Each ornament is individually hand-painted using the reverse painting technique églomisé. Clockwise from left: Dino Holiday, Rose Center Santa, Dove in a Pear Tree, Origami Peace Crane, and Milstein Family Hall of Ocean Life Cocktail Party. Bottom right: Vintage Postcard ornament.

ECEIVE AN ADDITIONAL **10% OFF** ON ALL PHONE RDERS. MENTION THIS CODE WHEN YOU CALL: *EXCL*

212-769-5216 for information or to place orders. Member's discount does apply. Discount does not apply to online purchases.

AMERICAN MUSEUM OF NATURAL HISTORY

WWW.AMNH.ORG

General Information

HOURS

Museum: Daily, 10:00 a.m.–5:45 p.m.
The Rose Center remains open until 8:45 p.m. on Friday. The Museum is closed Thanksgiving and Christmas.
Space Show: Every half hour, Sunday–Thursday and Saturday, 10:30 a.m.–4:30 p.m., Friday, 10:30 a.m.–7:00 p.m.
Research Library: Tuesday–Friday, 11:00 a.m. –4:00 p.m.
Hours are subject to change.

ENTRANCES

During Museum hours, visitors may enter through the subway (lower level), Central Park West at 79th Street (second floor), and the Rose Center/81st Street entrances. The 77th Street and Weston Pavilion/Columbus Avenue entrances are closed until further notice.

TRANSPORTATION AND PARKING

Subway: B (weekdays) or C to 81st Street; 1 or 9 to 79th Street
Bus: M7, M10, M11, or M104 to 79th Street; M79 to Central Park West
Parking Garage: Open daily, 8:00 a.m.–11:00 p.m.; enter from West 81st Street. Members receive a discounted rate of $10 if entering after 4:00 p.m. To receive this rate, you must have your parking ticket validated at the Security Desk (first floor, Central Park West entrance). For more information, call 212-313-7278.

FOOD SERVICE

Museum Food Court: Daily, 11:00 a.m.–4:45 p.m. (*lower level*)
Café on 4: Daily, 11:00 a.m.–4:45 p.m (*fourth floor*)
Café Pho: Daily, 11:00 a.m.–4:45 p.m (*first floor*)
Hours are subject to change.

MUSEUM SHOP

The following Museum Shops are open during regular Museum hours:
Main Shop (*first and second floors*)
Dinostore and More (*fourth floor*)
Planetarium Shop (*Rose Center, lower level*)
Satellite Shop (*Rose Center, first floor*)
Petra Shop (*fourth floor*)
Vietnamese Marketplace (*first floor*)
Butterfly Shop (*second floor*)

PHONE NUMBERS

Museum Information	212-769-5100
Membership Office	212-769-5606
Planetarium Information	212-769-5900
Member Birthday Parties	212-769-5606
Education Department	212-769-5310
Planned Giving Office	212-769-5119
Discovery Tours	212-769-5700
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
Web Site	www.amnh.org

AMNH eNotes delivers the latest information on Museum programs and events to you via email. Visit www.amnh.org to sign up today!

AMERICAN MUSEUM OF NATURAL HISTORY

Rotunda.
American Museum of Natural History
Received on: 11-26-03

Member
in t

Saturday

For two special ... Shops will offer a special 20% discount for Members instead of the normal 10% discount. It's the perfect opportunity to stock up on fascinating and fanciful holiday gifts.

Or, let us help you find the perfect gift! The Museum Shop is pleased to offer personal shopping services for individual or corporate gift-giving. Please contact Lydia Forster-Brock at 212-769-5792 or shopper@amnh.org.

Membership Department
Central Park West at 79th Street
New York, New York 10024-5192
www.amnh.org

rotunda

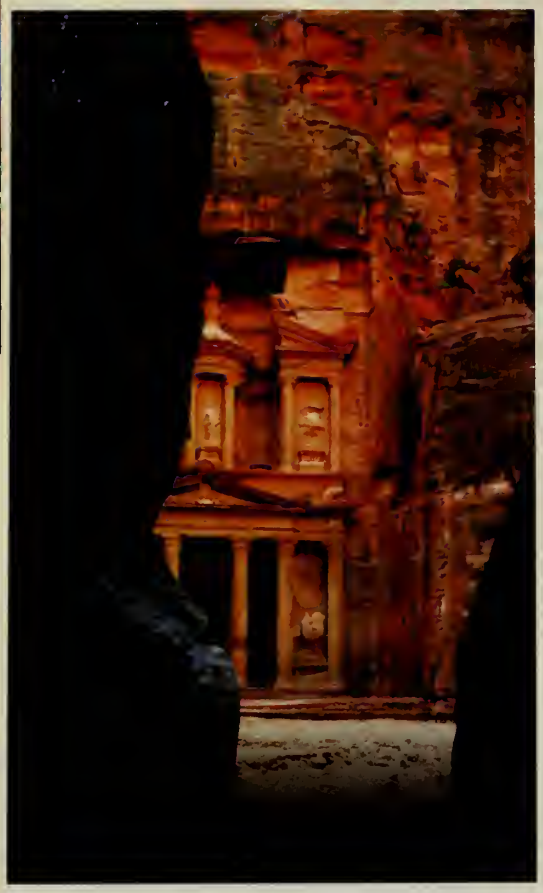
VOL. 29 NO. 1 JANUARY/FEBRUARY 2004

MEMBERS' NEWSLETTER

H70
J52
5
29
. 1
n-Feb
04

AMERICAN MUSEUM OF NATURAL HISTORY

Museum Notes



The Treasury, Petra | Jane Taylor

CURRENTLY ON VIEW

Petra: Lost City of Stone

Through July 6
Gallery 4

Literally carved from the red sandstone cliffs in the Jordan Rift Valley is the ancient city of Petra, now mostly in ruins. *Petra: Lost City of Stone* tells the story of this thriving metropolis at the crossroads of the ancient world's major trade routes and of the technological virtuosity that allowed the Nabataeans to build and maintain Petra in the harsh desert environment. Featuring some 200 objects including colossal stone sculptures and architectural elements traveling from Jordan to the United States for the first time, this is the most complete portrait ever mounted of the amazing city of Petra.

In New York, Petra: Lost City of Stone *is made possible by* Banc of America Securities *and* Con Edison.

The American Museum of Natural History also gratefully acknowledges the generous support of Lionel I. Pincus and HRH Princess Firyal and of The Andrew W. Mellon Foundation.

This exhibition is organized by the American Museum of Natural History, New York, and the Cincinnati Art Museum, under the patronage of Her Majesty Queen Rania Al-Abdullah of the Hashemite Kingdom of Jordan. Air transportation generously provided by Royal Jordanian.

The Bedouin of Petra

Through July 6
Akeley Gallery

Photojournalist Vivian Ronay's evocative color photographs taken between 1986 and 2003 document the Bedoul group of five sedentary Bedouin tribes living near the archaeological site of Petra in Jordan.

This exhibition is made possible by the generosity of the Arthur Ross Foundation.

The Butterfly Conservatory

Through May 31

The butterflies are back! Mingle with more than 500 live, free-flying tropical butterflies in an enclosed habitat that approximates their natural environment with lush vegetation and live flowering plants.

Admission is by timed entry only. Tickets are $9.50 for Members and $5.50 for Members' children.

The Butterfly Conservatory *is made possible through the generous support of Bernard and Anne Spitzer.*

PLANETARIUM SHOWS

SonicVision

Friday and Saturday, 7:30, 8:30, 9:30, and 10:30 p.m.
Hayden Planetarium Space Theater
$12 ($15 Non-Members)

Get ready for the mind-warping experience of your life! *SonicVision*, created by the American Museum of Natural History in association with internationally renowned performer Moby and MTV2, is a digitally animated alternative rock music show. The music explodes to life in a dazzling sequence of video animations taking viewers on a fantasical gravity-defying ride.

SonicVision *is made possible by generous sponsorship and technology support from Sun Microsystems, Inc.*

The Search for Life: Are We Alone?

This Space Show will whisk you on an incredible journey from the lightless depths of Earth's oceans to newly discovered planets on a quest for worlds that might support life.

The Search for Life: Are We Alone? *is made possible through the generous support of Swiss Re.*

Passport to the Universe

The original Hayden Planetarium Space Show, narrated by Tom Hanks, is back by popular demand!

The Space Shows were developed by the American Museum of Natural History in collaboration with the National Aeronautics and Space Administration (NASA). Written by Ann Druyan and Steve Soter. Music by Stephen Endelman.

Look Up!

The Rose Center presents a star show just for kids! Children ages 3 to 5 will learn through songs, storytelling, the spectacular Zeiss star projector, vivid visuals, and more.

Saturdays and Sundays, 10:15 a.m. Members and Members' children, $5; adults and children, $10. All children must be accompanied by an adult.

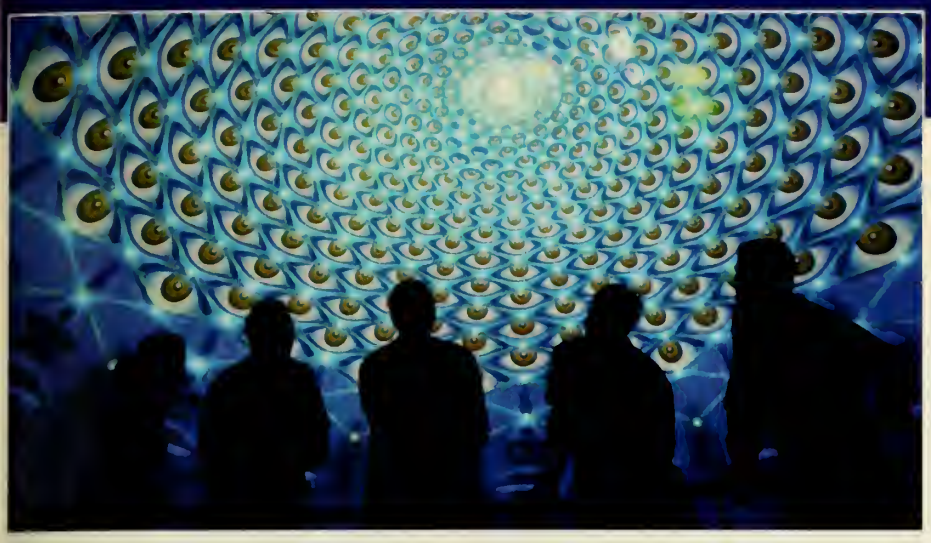
IMAX® MOVIES

Samuel J. and Ethel LeFrak Theater
Call 212-769-5100 for show times.

India: Kingdom of the Tiger

Journey across India, a breathtaking land shaped by myriad cultures, customs, and traditions, and meet its stately ambassador, the mighty Bengal tiger.

Cover: *Three 4' x 6' mirrors create multiple reflections, giving the impression of a crowd.* | Exploratorium



SonicVision *in the Hayden Planetarium Space Theater* | D. Finnin/AMNH

Volcanoes of the Deep Sea

Twelve thousand feet down, life is erupting. Travel to the most remote and hostile environment on Earth, on the deep sea floor, where strange creatures live in extreme temperatures and impenetrable darkness. Learn why scientists are searching here for clues to the emergence of life on Earth, as well as the possibility of life elsewhere.

AND DON'T MISS...

Look What People are Saying about AMNH Birthday Parties!

"Thank you so much for a terrific party! I got so many compliments from our guests. The party planners at our party were absolutely wonderful. I can't wait to use your services again in the future."
—*Eileen Tang,* ***Michael's 4th birthday Dinosaur Discovery Party***

"The kids' attention was held throughout the party and the staff was enthusiastic and knowledgeable. All our guests thoroughly enjoyed the party! A huge A+."
—*Evelyn Wilkens,* ***Adnan's 5th birthday Underwater Treasures Party***

"We had a blast! All of the kids were very entertained. The parents all commented on how great the staff at the party was! Thank you for a wonderful party!"
—*Sue-Ann Kasdin,* ***Jeremy's 4th birthday Dinosaur Discovery Party***

The newly renovated Milstein Hall of Ocean Life is the backdrop for our new deep-sea birthday adventure, ***Underwater Treasures***, for children ages 5 and up. In addition, Linda Kaye's Partymakers presents ***Dinosaur Discovery, Global Mysteries, Cosmic Blastoff***, and ***Safari Adventure***. Each of these parties brings a winning combination of education and entertainment. Parties are tailored for children ages 4 and up and are available seven days a week as a benefit to Contributor and higher-level Members only. For more information and to request a date, see our online brochure at www.partymakers.com or call Linda Kaye's Partymakers at 212-288-7112.

Offer from Restaurant Associates

This winter, Members can enjoy a complimentary small fountain soda (a $1.65 value) with the purchase of any stadium hot dog from the Hot Dogs as America menu. As always, Members receive a 15% discount in the Museum's dining facilities—simply present your Membership card at the start of your transaction.

rotunda

ISSN 0194-6110
USPS Permit #472-650
Vol. 29, No. 1, January/February 2004

Lewis W. Bernard, *Chairman*
Ellen V. Futter, *President*
Lynn DeBow, *Senior Vice President for Development and Membership*
Rosemary Caulk, *Director of Membership*

Rotunda is published bimonthly, except for a combined issue in July/August/September and a single issue in December, by the Membership Office of the American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192. Phone: 212-769-5606. Web address: www.amnh.org. Museum membership of $55 per year and higher includes a subscription to *Rotunda*.

©2003 American Museum of Natural History.
Periodical postage paid at New York, NY, and at additional mailing offices. Postmaster: Please send address changes to *Rotunda*, Membership Office, AMNH, at the above address. Printed in the USA.

Exploratorium/AMNH

The American Museum of Natural History is pleased to announce a special exhibition that will add an exciting and creative dimension to the way visitors learn science at the Museum.

Opening January 31, 2004, *Exploratorium/AMNH* will feature a collection of engaging interactive displays, on loan from the renowned Exploratorium science center in San Francisco, that invites visitors to explore concepts and phenomena in the natural sciences. Hands-on displays clustered around themes such as Motion; Light: Mirrors and Reflection; Pendulums and Phase Play; and Rotation encourage audiences of all ages and all levels to investigate and play.

This mirror—and the eye's difficulty distinguishing between real and mirror images—make all sorts of impossible tricks easy: a visitor can appear to lift both feet off the ground. | Exploratorium

Myles Gordon, Vice President for Education, explains, "*Exploratorium/AMNH* brings scientific principles and phenomena to life. Museum visitors can literally get their hands on abstract fundamentals that underpin our world and the universe. *Exploratorium/AMNH* is a captivating experience that extends our mission of education, amplifies the impact of our exhibitions, and provides a springboard to discovery for school groups, families, and the curious of all ages."

Two faces combine as equal amounts of light are reflected and pass through the "mirror/window." | Exploratorium

Almost 40 exhibit elements and a cadre of well-trained explainers will beckon children and adults alike to engage their minds, bodies, and senses in learning. For example, at the Aeolian Landscape exhibit, you will be able to create miniature dunescapes with a simple adjustment of a fan, demonstrating how sand dunes and snow drifts are shaped by wind and the landscape. At the Everyone Is You and Me exhibit, a "mirror/window," experience how light is reflected and transmitted as your face merges into a composite with that of the person on the opposite side. At the Pendulum Snake, set in motion a line of pendulums of different lengths, and observe how the underlying mathematics causes patterns to appear and disappear.

Emphasizing the presentation of authentic experiences and working demonstrations of observable phenomena, *Exploratorium/AMNH* promises to be a popular exhibition that will spark curiosity, encourage inquiry, and extend and enhance the level of experiential learning at the American Museum of Natural History. Come explore for yourself—you'll be amazed by what you'll learn!

Sand pouring from a swinging pendulum onto a moving conveyer belt creates wave patterns. | Exploratorium

Exploratorium/AMNH
January 31–August 2004
Gallery 3

Seasons of Life and Land

The Arctic National Wildlife Refuge stretches across 19.8 million acres of the far northeast corner of Alaska. It is a place of stark beauty and ecological richness, ranging from soaring mountains to rolling tundra to coastal lagoons. The biological heart of the refuge is a narrow coastal plain, in some places less than 20 miles wide, which provides essential breeding habitat for numerous mammal and bird species.

Lousewort is one of the first flowering plants to emerge in the spring. | © Subhankar Banerjee

The changing seasons bring stunning contrasts to the region, which for centuries was inhabited only by Inupiat and Gwich'in hunters. During the long, cold winter months, few animals besides muskoxen, polar bears, Dall sheep, and ptarmigans roam the windswept terrain. In spring and summer, however, an explosion of plant and animal life occurs in the Arctic. Attracted by this brief but incredible abundance, millions of birds migrate from as far away as Chile, China, Africa, and the Antarctic to feast on the bountiful food.

Until recently, most images of this vibrant ecosystem were captured during the brief summer season when weather conditions permitted more comfortable photography—leaving many to imagine the area as largely frozen, barren, and lifeless during the rest of the year. Photographer Subhankar Banerjee has shattered that notion by recording four seasons of abundant life in the refuge with a series of stunning photographs. A selection of more than 40 of his large-format photographs are brought together in *Seasons of Life and Land: Arctic National Wildlife Refuge*, an exhibition on view in the Museum's IMAX® Gallery through March 7, 2004.

Banerjee traveled with Inupiat guide Robert Thompson through the refuge on foot and by raft, kayak, and snowmobile. Enduring blizzards, bitter cold, and a trek that totaled 4,000 miles over two years, Banerjee captured breathtaking images of the land, its wild species, and the native peoples.

Banerjee is an award-winning photographer and conservationist. His photographs of the Arctic National Wildlife Refuge have been exhibited at the Smithsonian's National Museum of Natural History in Washington, the California Academy of Sciences in San Francisco, and in a group exhibition at the Natural History Museum in London. Banerjee's photographs have appeared in numerous national magazines and he has lectured on the diversity of the Arctic Refuge.

Dall Sheep shedding its coat in spring in the Arctic National Wildlife Refuge | © Subhankar Banerjee

Remote as it is, the refuge has not escaped the effects of industrial development. Recent global warming trends are dramatically altering the Arctic ecosystem, and pollutants from far away are accumulating in the water and wildlife. And while most of the refuge is permanently protected, a portion of the coastal plain still awaits a final decision by the U.S. government on whether it will be developed for oil production or preserved as wilderness.

Many parts of the Refuge are so remote that natural features remain unnamed. Here, one such lake reflects an autumn landscape. | © Subhankar Banerjee

Members' Programs

Programs are available to Members only, unless a non-Member's price is given.

MEMBERS' SPECIAL PROGRAM

Art of the Dioramas Tour

Tuesday, February 3 MT020304
Thursday, February 5 MT020504
6:30 p.m.
$30

The Museum is renowned for its beautiful dioramas depicting wildlife specimens in realistic natural settings. Join Stephen C. Quinn of the Department of Exhibition for a tour of these unique works of art and science and learn about the curators and artists who created them and the techniques they used.

BEHIND-THE-SCENES TOUR

Behind the Scenes in Anthropology

Tuesday, February 10 MB021004
6:30, 7:00, or 7:30 p.m.
$30

Assembled from around the world from the time of the Museum's founding to the present day, the anthropology collection includes an amazing variety of textiles. John Hansen, Collections Manager in the Division of Anthropology, and Museum staff will lead a tour through collections storage areas showing some of these magnificent objects and explaining their complex preservation requirements.

MEMBERS' CHILDREN'S PROGRAMS

Monkey Business

Sunday, February 8 MC020804
10:30 a.m.–12:00 noon (Ages 5–7)
1:30–3:00 p.m. (Ages 8 and up)
Rose Center Classroom
$28

Primates range from the tiny pygmy mouse lemur to the massive mountain gorilla, and of course, include ourselves, humans. Join Arthur Horan, Department of Education, and learn about the behavior and habitats of these intriguing animals.

Cheetahs in the Akeley Hall of African Mammals | J. Beckett and D. Finnin/AMNH

Mysteries of Mesoamerica

Saturday, March 6 MC030604
10:30 a.m.–12:00 noon
1:30–3:00 p.m.
Calder Lab
$28

Many people revere ancient Mesoamerica as a place of mystery. Get the facts by traveling through the Hall of Mexico and Central America to learn about the peoples who kept an astronomical calendar, played a ball game using a rubber ball, and grew corn as their primary food staple. Children will then return to the classroom to make some of the traditional objects on display. Monica Hidalgo, educator, leads this workshop.

FREE HALL TOURS

Volcanoes

Saturday, February 7 MT020704
Sunday, February 8 MT020804
4:00 p.m.
Free (Registration required)

Find out what a volcano really is, why they are where they are, why we live around them, and what forces keep them going. Museum Tour Guide Bill Hinchman leads this fascinating exploration.

Exploring Color: Red

Saturday, March 6 MT030604
Sunday, March 7 MT030704
4:00 p.m.
Free (Registration required)

Red is the first tour in a new series, Exploring Color. These programs will investigate our perception and interpretation of color, as well as the scientific explanation for it. What is color and how do we see it? What is red shift? Why is Mars red? Join Museum Tour Guide Donna Walcavage for a look at everything red.

The Pasamonte meteorite, photographed in cross-polarized light | D. Ebel/AMNH

Meteorites: Rosetta Stones from Space

Saturday, March 27 MT032704
Sunday, March 28 MT032804
4:00 p.m.
Free (Registration required)

Meteorites, rocks from space that have landed on Earth, are "leftovers"

For tickets, call 212-769-5200 or visit www.amnh.org. All Members' programs require advance registration.

of planetary formation, and research on them sheds light on the beginnings of our solar system; the birth of celestial bodies such as asteroids, comets, and planets; and the dynamic role of asteroid and comet impacts throughout the history of Earth and the solar system. Bill Hinchman, Museum Tour Guide, takes you through our newly renovated Arthur Ross Hall of Meteorites.

PREVIOUSLY LISTED

Limited space may still be available for these programs.

Behind the Scenes in Ornithology

Tuesday, January 13 MB011304
6:30, 7:00, or 7:30 p.m.
$30

Take advantage of this opportunity to view portions of the largest bird collection in the world, which includes some species that are now extinct. Tour the storage facilities with Scientific Assistant Peter Capainolo and view specimens that have been prepared for study. Later meet Collections Manager Paul Sweet and learn why collections such as this are so important for conservation and scientific research.

Riches of the Coral Reef

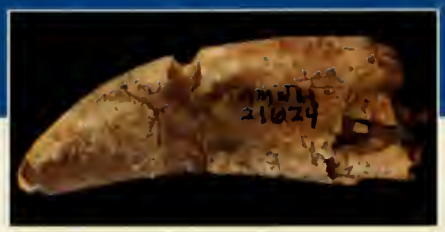
Two Saturdays,
January 17 and 24 MC011704
10:30 a.m.–12:00 noon
Rose Center Classroom
$55/pair

A coral reef is home to thousands of soft-bodied organisms that create their "city" from minerals in the water. In this two-part workshop, participants will construct a model of a coral reef to bring home while learning about life in a reef ecosystem. *(Ages 5–7, each child with one adult)*

Dino Skins

Sunday, January 18 MC011804A
10:30 a.m.–12:00 noon
Rose Center Classroom
$28

In this workshop, children will learn what scientists know about dinosaur skin (and how they know it). Later, they'll piece together a plaster cast of dinosaur skin and paint it using scientific guesswork and current theories to determine the colors and patterns. *(Ages 5–7)*



Rick Edwards/AMNH

T. rex Teeth

Sunday, January 18 MC011804B
1:30–3:00 p.m
Rose Center Classroom
$28

How do paleontologists know whether a dinosaur ate meat or plants? In this workshop children examine teeth from different animal species and discover what can be learned from a fossil fragment. They will reconstruct and paint plaster-cast *T. rex* teeth to take home. *(Ages 8 and up)*

Arctic Dreamer: The Lonely Quest of Vilhjalmur Stefansson

Tuesday, February 24 MF022404
7:00 p.m.
Kaufmann Theater
Free to Members (limited to 4 tickets)
$15 (Non-Members)

Join us for the U. S. public premier of the first documentary examination of the fascinating and sometimes controversial Arctic explorer/anthropologist Vilhjalmur Stefansson, followed by a discussion with the director.

During Stefansson's early expeditions, he lived among the Inuit, adopting their diet, clothing, and means of travel. The Museum's collections were enriched by the artifacts he brought back from his 1908 expedition, which was supported by AMNH President Henry Fairfield Osborn. Stefansson is perhaps best known for his work with an Inuit group known as the "Blond Eskimos," who used primitive tools and who had some Caucasian features. Stefansson theorized that they were descended from the Vikings. This film incorporates extraordinary rare archival footage with interviews with those who knew Stefansson and have written about him.

Filmmaker Peter Raymont of White Pine Pictures is the producer and director of over 100 documentary films. He is the recipient of 35 international awards including the Canadian Genie for Best Documentary for *The World Is Watching*. His films have been broadcast on numerous international television networks.

Vilhjalmur Stefansson | Stefansson Collection at Dartmouth College, NH

Dr. Sacha Spector on Saving "the Other 99%"

Sacha Spector is Invertebrate Conservation Program Manager with the Museum's Center for Biodiversity and Conservation (CBC). We caught up with Sacha in his invertebrate lab at the Museum, as he is busy gearing up for the CBC's March symposium, *Expanding the Ark: The Emerging Science and Practice of Invertebrate Conservation.*

Dr. Sasha Spector doing field research in Bolivia | Sergio Ayzama

Q: What exactly are invertebrates, and why should people care about them?

Invertebrates are united by what they *don't* have, namely backbones, rather than any shared features. If you think of the evolutionary "Tree of Life" of animals, vertebrates—mammals, birds, reptiles, etc.—make up only a single branch. All the other animal branches are invertebrates. So invertebrates really represent the vast majority of evolutionary history on Earth. While people mostly think of insects, invertebrates actually encompass a huge range of animals found on land and in water. Some of these we're quite familiar with, like squid, lobsters, corals, and jellyfish, but there's a whole universe of lesser-known invertebrates out there, like tardigrades or "water bears," chitons, and flatworms. As a group, invertebrates probably constitute 99 percent of all animal life on Earth, so we share this planet with millions of invertebrate species.

A species of scarab beetle from Bolivia | S. Spector/AMNH

Invertebrates are essential elements of every ecosystem—they fill niches as herbivores, carnivores, parasites, and decomposers. They also serve as food for mammals, birds, fish, reptiles, amphibians, other invertebrates, and even carnivorous plants! Ecosystem services provided by invertebrates—such as pollination of crops, soil creation and aeration, decomposition, and seed dispersal—are estimated to be worth trillions of dollars to our economy each year. It is said that over one third of the human diet depends directly or indirectly on pollination by insects.

Q: Invertebrates seem to suffer from an image problem...some elicit fear, while others are seen as pests.

Usually, we fear things we don't understand. One of my favorite things is getting kids to look at insects with a microscope—one look at the metallic colors of a beetle or the reflections from a fly's eye and the "eeewww" usually turns into "cool!" As for pests, only a tiny percentage of invertebrates are injurious, and those we're most familiar with are generally non-native species introduced by humans, such as the gypsy moth, Japanese beetle, and some types of cockroaches. But every organism has its function in the web of life—even mosquitoes. Mosquito larvae are an important food source for fish and other aquatic creatures, and the adults feed a lot of birds and bats.

CBC's Spring 2004 Symposium
Expanding the Ark: The Emerging Science and Practice of Invertebrate Conservation
March 25 and 26, 2004
9:00 a.m.–6:00 p.m.

Members' price: $80 for the two-day conference ($100 after February 6)

For information or to purchase tickets, call 212-769-5200 or visit http://research.amnh.org/biodiversity/.

Support for the CBC's Spring Symposium is provided by Daniel and Sheryl Tishman and John Tishman.

Q: What drew you to the study of invertebrates?

My interest in invertebrates hit me later in life. In fact, I went off to

college wanting to become a professional trombonist. But I was also very concerned about the environment, and I've always loved the outdoors, so I eventually changed my major to biology. (Also, I quickly realized I would never make a great trombonist.) I did a few insect-related projects as an undergraduate, and the more I delved into biodiversity research, the more I realized that invertebrates were being left out of the majority of conservation efforts. My current research is related to addressing this issue. Because invertebrates as a whole are so numerous and diverse, and most groups are poorly understood, I'm working on designing approaches to choosing a few invertebrate groups about which we can quickly compile as much data as possible, and then use those groups as "information surrogates" for invertebrate conservation planning.

Q: Are invertebrates facing the same threats and endangerment as mammals, fish, and other species?

Absolutely. The three most endangered groups of organisms in the United States—freshwater mussels, crayfish, and stoneflies—are all invertebrates. Widespread threats such as habitat loss, introduced species, and pollution are rapidly driving many invertebrate species to the edge of extinction. Part of their plight lies in their very diversity—how do you plan and manage communities of organisms when you aren't sure what (or how many) you're dealing with? This is one of the major questions that we will be looking at in the *Expanding the Ark* symposium.

A roach in its native environment of Botswana | S. Spector/AMNH

Q: What can we do as individuals to help conserve invertebrates?

There are important things you can do every day. Pesticides, which often kill many other organisms besides the target pest, are a major threat to invertebrates, so one thing everyone can do is to support farming without chemical pesticides by choosing organic foods. In the suburbs and rural areas, light pollution is a concern as it attracts insects in large numbers away from their habitats, and disrupts their egg laying, mating, and feeding, and also makes them more susceptible to predation. You can reduce or eliminate outdoor lights or, if they are necessary, install motion detectors or use yellow lights that don't attract insects. But probably the most important thing you can do is to learn about the invertebrates that live in your area. We save what we care about, so the first step is just getting out there and learning to love the fascinating and often beautiful creatures all around us.

Mantis making a meal of a plant hopper | S. Spector/AMNH

CBC's Tenth Anniversary

Living With Nature: Everyday Actions to Sustain Our Planet

Wednesday, February 11, 2004
7:30 p.m.
LeFrak Theater

This thought-provoking and inspiring roundtable will go beyond "the three Rs" (Reduce, Reuse, Recycle) and explore how we can sustain biodiversity while still benefiting from it and enjoying it.

Find out more at the Resource Fair starting at 6:30 p.m.

Free; reservations recommended: visit http://research.amnh.org/biodiversity/ or call 212-496-3423.

Tenth Annual Family Party

The Museum's tenth annual Family Party, held on Wednesday, October 22, 2003, was a resounding success. Children and parents explored the Museum and participated in a wide range of fun and fascinating activities. The annual event benefits the Museum's scientific and educational mission.

Children "clowning around" | D. Finnin/AMNH

Young paleontologists dig for fossils. | D. Finnin/AMNH

Anita & Steve Shevett

Museum Trustee Chris Davis shares a moment with his daughter Katie. | D. Finnin/AMNH

Family Party Vice Chair Tamara Leuchtenburg and daughter Julia with Tara and Michael Rockefeller and a friend | D. Finnin/AMNH

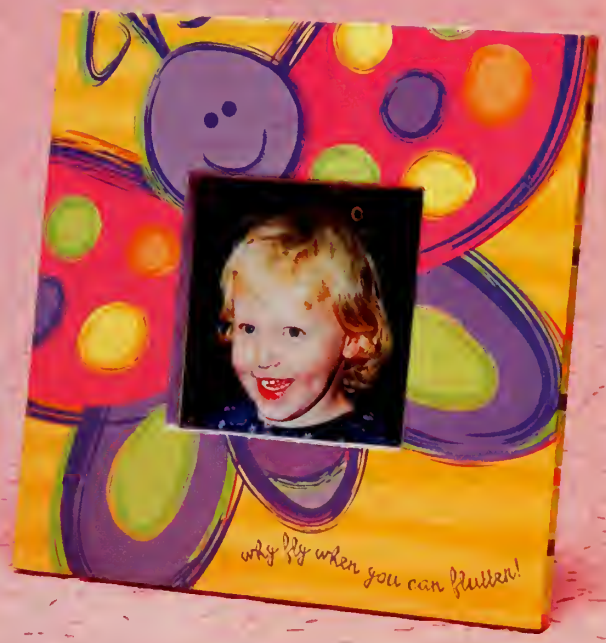
Vice Chair Alexandra Lebenthal, daughter Charlotte, and Honorary Chair Lucy Danziger and daughter Josie | D. Finnin/AMNH

Three generations enjoy the party. | Anita & Steve Shevett

Glen Markman, Museum President Ellen Futter, MTV Networks Group President Judy McGrath and husband Mike Corbett, Edie Markman, and Anna Corbett | D. Finnin/AMNH

Jerry Zelenka introduces one of his live animals. | Anita & Steve Shevett

SHOP FOR GREAT BUTTERFLY GIFTS AT AMNH THIS SPRING.



RECEIVE AN ADDITIONAL **10% OFF** ON ALL PHONE ORDERS. **CALL 212-769-5216** TO PLACE ORDERS.

*Mention this code when you call: *BFLY*. Member's discount does apply. Discount does not apply to online purchases.

AMERICAN MUSEUM of NATURAL HISTORY

WWW.AMNH.ORG

General Information

HOURS
Museum: Daily, 10:00 a.m.–5:45 p.m.
The Rose Center remains open until 8:45 p.m. on Friday. The Museum is closed Thanksgiving and Christmas.
Space Show: Every half hour, Sunday–Thursday and Saturday, 10:30 a.m.–4:30 p.m., Friday, 10:30 a.m.–7:00 p.m.
Research Library: Tuesday–Friday, 11:00 a.m. –4:00 p.m.
Hours are subject to change.

ENTRANCES
During Museum hours, visitors may enter through the subway (lower level), Central Park West at 79th Street (second floor), and the Rose Center/81st Street entrances. The 77th Street and Weston Pavilion/Columbus Avenue entrances are closed until further notice.

TRANSPORTATION AND PARKING
Subway: B (weekdays) or C to 81st Street; 1 or 9 to 79th Street
Bus: M7, M10, M11, or M104 to 79th Street; M79 to Central Park West
Parking Garage: Open daily, 8:00 a.m.–11:00 p.m.; enter from West 81st Street. Members receive a discounted rate of $10 if entering after 4:00 p.m. To receive this rate, you must have your parking ticket validated at the Security Desk (first floor, Central Park West entrance). For more information, call 212-313-7278.

FOOD SERVICE
Museum Food Court: Daily, 11:00 a.m.–4:45 p.m. (*lower level*)
Café on 4: Daily, 11:00 a.m.–4:45 p.m (*fourth floor*)
Café Pho: Daily, 11:00 a.m.–4:45 p.m (*first floor*)
Hours are subject to change.

MUSEUM SHOP
The following Museum Shops are open during regular Museum hours:
Main Shop (*first and second floors*)
Dinostore and More (*fourth floor*)
Planetarium Shop (*Rose Center, lower level*)
Satellite Shop (*Rose Center, first floor*)
Petra Shop (*fourth floor*)
Vietnamese Marketplace (*first floor*)
Butterfly Shop (*second floor*)
Exploratorium Shop (*third floor*)

PHONE NUMBERS

Museum Information	212-769-5100
Membership Office	212-769-5606
Planetarium Information	212-769-5900
Member Birthday Parties	212-769-5606
Education Department	212-769-5310
Planned Giving Office	212-769-5119
Discovery Tours	212-769-5700
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
Web Site	www.amnh.org

AMNH eNotes delivers the latest information on Museum programs and events to you via email. Visit www.amnh.org to sign up today!

AMERICAN MUSEUM OF NATURAL HISTORY

Vietnam Extended!

"Lavishly illustrated...alluring...absorbing."
—*The New York Times*

"The most significant cultural collaboration between museums in Communist Vietnam and the United States since the end of the Vietnam war."
—*Financial Times (London)*

"A major new exhibition—with an expansive, often playful, look at today's Vietnam."
—*The Wall Street Journal*

The critically acclaimed *Vietnam: Journeys of Body, Mind & Spirit* remains at the Museum until **MARCH 7.**

Membership Department
Central Park West at 79th Street
New York, New York 10024-5192
www.amnh.org

Rotunda.
American Museum of Natural History
Received on: 01-06-04

rotunda

VOL. 29 NO. 2 MARCH/APRIL 2004

MEMBERS' NEWSLETTER

170
152
29
. 2
r 2004

AMERICAN MUSEUM OF NATURAL HISTORY

Museum Notes

"Turntable": The physics of rotation provides a challenge as visitors try to keep rings upright on their edges on top of a spinning disk | Exploratorium

CURRENTLY ON VIEW

Exploratorium/AMNH

Through August 15
Gallery 3

Exploratorium/AMNH brings an exciting and creative dimension to the way visitors learn science. A collection of engaging interactive displays clustered around themes such as motion, light, pendulums, and rotation encourages audiences of all ages and all levels to investigate and play.

Exploratorium/AMNH *is funded in part by a grant from the Small Business Administration. For information regarding accessibility, call 212-769-5100.*

Seasons of Life and Land: Arctic National Wildlife Refuge

Through September 6
IMAX® Gallery

This exhibition, focusing on the interdependence of land, water, wildlife, and humanity, features over 30 large-format color photographs by Subhankar Banerjee, a conservationist who spent two years in Alaska documenting the biodiversity and indigenous cultures there.

Petra: Lost City of Stone

Through July 6
Gallery 4

Literally carved from the red sandstone cliffs in the Jordan Rift Valley is the ancient city of Petra, now mostly in ruins. *Petra: Lost City of Stone* tells the story of this thriving metropolis at the crossroads of the ancient world's major trade routes and of the technological virtuosity that allowed the Nabataeans to build and maintain Petra in the harsh desert environment. This is the most complete portrait ever mounted of the amazing city of Petra.

In New York, Petra: Lost City of Stone *is made possible by* **Banc of America Securities** *and* **Con Edison.**

The American Museum of Natural History also gratefully acknowledges the generous support of Lionel I. Pincus and HRH Princess Firyal and of The Andrew W. Mellon Foundation.

This exhibition is organized by the American Museum of Natural History, New York, and the Cincinnati Art Museum, under the patronage of Her Majesty Queen Rania Al-Abdullah of the Hashemite Kingdom of Jordan. Air transportation generously provided by Royal Jordanian.

The Bedouin of Petra

Through July 6
Akeley Gallery

Photojournalist Vivian Ronay's evocative color photographs taken between 1986 and 2003 document the Bedoul group of five sedentary Bedouin tribes living near the archaeological site of Petra in Jordan.

This exhibition is made possible by the generosity of the Arthur Ross Foundation.

The Butterfly Conservatory

Through May 31

The butterflies are back! Mingle with more than 500 live, free-flying tropical butterflies in an enclosed habitat that approximates their natural environment with lush vegetation and live flowering plants.

Admission is by timed entry only. Tickets are $9.50 for Members and $5.50 for Members' children.

The Butterfly Conservatory *is made possible through the generous support of Bernard and Anne Spitzer.*

PLANETARIUM SHOWS

SonicVision

Fridays and Saturdays, 7:30, 8:30, 9:30, and 10:30 p.m.
Hayden Planetarium Space Theater

Get ready for the mind-warping experience of your life! *SonicVision*, created by the American Museum of Natural History in association with internationally renowned performer Moby and MTV2, is a digitally animated alternative rock music show. The music explodes to life in a dazzling sequence of video animations taking viewers on a fantasical gravity-defying ride.

SonicVision *is made possible by generous sponsorship and technology support from Sun Microsystems, Inc.*

Tourists entering Petra through the Siq | Vivian Ronay

The Search for Life: Are We Alone?

This Space Show will whisk you on an incredible journey from the lightless depths of Earth's oceans to newly discovered planets on a quest for worlds that might support life.

The Search for Life: Are We Alone? *is made possible through the generous support of Swiss Re.*

Passport to the Universe

The original Hayden Planetarium Space Show, narrated by Tom Hanks, is back by popular demand!

The Space Shows were developed by the American Museum of Natural History in collaboration with the National Aeronautics and Space Administration (NASA). Written by Ann Druyan and Steve Soter. Music by Stephen Endelman.

IMAX® MOVIES

Samuel J. and Ethel LeFrak Theater
Call 212-769-5100 for show times.

India: Kingdom of the Tiger

Journey across India, a breathtaking land shaped by myriad cultures, customs, and traditions, and meet its stately ambassador, the mighty Bengal tiger.

Volcanoes of the Deep Sea

Twelve thousand feet down, life is erupting. Travel to the most remote and hostile environment on Earth, on the deep sea floor, where strange creatures live in extreme temperatures and impenetrable darkness. Learn why scientists are searching here for clues to the emergence of life on Earth, and the possibility of life elsewhere.

Cover: *Earth Bulletin in the Gottesman Hall of Planet Earth* | AMNH

AND DON'T MISS...

Look What People Are Saying about AMNH Birthday Parties!

"The professor was truly outstanding—she engaged all the children and was able to draw in even the reluctant ones. It was a really wonderful party."
—*Heather Shamsai,* ***Hayden's 5th birthday Dinosaur Discovery Party***

"The party was fantastic! The planners and helpers made it easy for Mom and Dad to enjoy the party. Thank you!"
—*Robin Narasimhan,* ***Patrice's 5th birthday Dinosaur Discovery Party***

The newly renovated Milstein Hall of Ocean Life is the backdrop for our new deep-sea birthday adventure, ***Underwater Treasures***, for children ages 5 and up. Dive through 20,000 leagues of birthday fun for this voyage into the deep sea, where the birthday child and friends examine the wonder of life beneath the waves. In addition, Linda Kaye's Partymakers presents ***Dinosaur Discovery, Global Mysteries, Cosmic Blastoff***, and ***Safari Adventure***. Each of these parties brings a winning combination of education and entertainment. Parties are tailored for children ages 4 and up and are available seven days a week as a benefit to Contributor and higher-level Members only. For more information and to request a date, see our online brochure at www.partymakers.com or call Linda Kaye's Partymakers at 212-288-7112.

Offer from Restaurant Associates

This spring, Restaurant Associates is pleased to offer a healthy snack for Members—receive $1.00 off a fresh fruit cup (regularly priced at $3.75). As always, Members receive a 15% discount in the Museum's dining facilities—simply present your Membership card at the start of your transaction.

rotunda

ISSN 0194-6110
USPS Permit #472-650
Vol. 29, No. 2, March/April 2004

Lewis W. Bernard, *Chairman*
Ellen V. Futter, *President*
Lynn DeBow, *Senior Vice President for Development and Membership*
Rosemary Caulk, *Director of Membership*

Rotunda is published bimonthly, except for a combined issue in July/August/September and a single issue in December, by the Membership Office of the American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192. Phone: 212-769-5606. Web address: www.amnh.org. Museum membership of $55 per year and higher includes a subscription to *Rotunda*. ©2003 American Museum of Natural History. Periodical postage paid at New York, NY, and at additional mailing offices. Postmaster: Please send address changes to *Rotunda*, Membership Office, AMNH, at the above address. Printed in the USA.

Science Bulletins

Bringing science news into the halls—and beyond

by Ashton Applewhite

New planets! New species! Eruptions! Quakes from space! How can a museum present science in a way that reflects its dynamic nature? When the Museum opened a series of permanent exhibition halls—the Hall of Biodiversity in 1997, the Gottesman Hall of Planet Earth in 1999, and the Cullman Hall of the Universe in the Rose Center for Earth and Space in 2000—it wanted to be certain that there were ways to present current science. Enter the EarthBulletin, BioBulletin, and AstroBulletin: cutting-edge science delivered electronically on plasma screens, touch-screen kiosks, and the Museum Web site (http://sciencebulletins.amnh.org/).

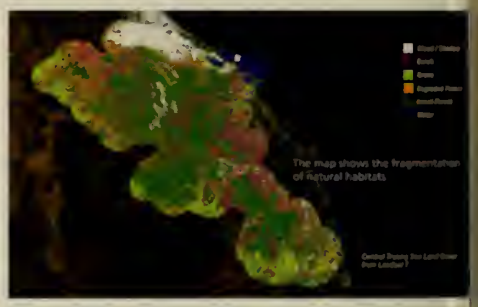
Each Bulletin is housed in its respective hall and presents current science in three formats: documentary feature stories, data visualizations, and weekly news about events like the rover *Spirit*'s landing on Mars, the devastating earthquake in the Iranian city of Bam, and the dire consequences of illegal logging in Indonesia. Created in high-definition digital video and projected on large plasma screens at four times the resolution of standard television, the Bulletins look spectacular. "It can be a challenge to convey the dynamic nature of science in a museum setting, and that's why we're excited about the Bulletins," says Mike Novacek, Senior Vice President and Provost of Science. "The combination of compelling images and 'breaking news' really engages visitors in what's happening across the sciences and around the world."

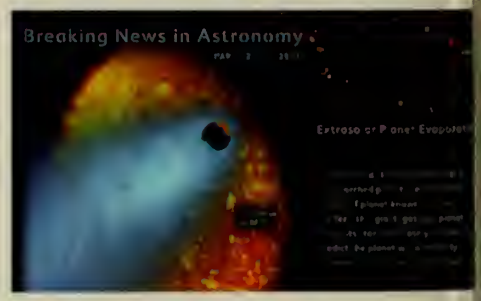
Staff scientists collaborate intensively on the content of each program. "The combination of high production values with demanding editorial standards really makes the Science Bulletins unique," comments Ro Kinzler, Director of the National Center for Science Literacy, Education and Technology, a group within the Department of Education that works to extend the scientific and cultural resources of the Museum beyond its walls. The overall editorial content is overseen by Michael Shara, Curator-in-Charge, Department of Astrophysics, Edmond Mathez, Curator, Department of Earth and Planetary Science, and Eleanor Sterling, Director, Center for Biodiversity and Conservation.

The documentary features are five- to seven-minute high-definition videos that follow men and women into the field as they conduct their research. Describing the $80,000 camera as "a computer on your shoulder," Director of Photography Jason Lelchuk gets to hoist it while chest-deep in Thailand's Andaman Sea shooting mangroves, or leaning out the belly of a fixed-wing Cessna to pan across the Arctic National Wildlife Refuge. Keeping all the gear working is only part of the job. The other part is figuring out how to tell the story, which according to Lelchuk is largely a matter of being in the right place at the right time. "There are going to be a series of sincere, real moments that you cannot re-create. A good documentary is usually based on getting a bunch of them"—like the moment that the first herd of wild horses to roam free in Mongolia in 50 years thundered out of their crates and into the Gobi Desert.

Scientists now study extremely complex phenomena using enormous quantities of computer-generated data, and these data have to be rendered visually in order to be comprehensible. Staff scientist Ned Gardiner is the team's expert in the remote sensing technology on which this component of the Bulletins is based. "We're the first generation of humans to be able to step back and see Earth," he observes. "The first astronauts were changed forever by seeing the thin blue line separating life as we know it from the vast emptiness of deep space." That fragile envelope and its contents are the focus of the Bulletins' Earth and Bio data visualizations, which use NASA satellite data to bring to life large-scale natural phenomena such as changes over time in the ozone hole, sea ice extent, sea surface temperature, land cover, fires, and urban sprawl. Annotations explain the information contained in the data, and how conservation biologists, planners, and ecologists like Gardiner himself put it to use. Staff scientist and geophysicist Al Duba observes that the EarthBulletin helps visitors understand how the planet works, "which helps them make informed decisions in important areas like conservation, mitigating hazards, and maintaining a healthy environment."

Animator and production designer Bill Bourbeau creates animations for the features and the data visualizations. "I have to learn the science in layman's terms and then translate it





Top: Data visualization: Vietnam land cover (data source: NASA's Landsat 7); Bottom: Breaking News in Astronomy: Extrasolar planets (illustration created by NASA) | AMNH

AstroBulletin in the Cullman Hall of the Universe | AMNH

graphically," he explains. His toughest recent task was to make an animation of the first 10,000 years after the Big Bang for a story on cosmic microwave background radiation. "I had to create a dynamic system that matched the physics of the photons and the electrons the scientists were telling me about, and at the same time make something that was interesting to watch," he explained.

The Bulletins also use compelling 3-D graphics to report weekly on changes in the biosphere, Earth events, and news from space—explosions from an Ecuadorian volcano, for example, or a black hole devouring a companion star. Reporting these high-concept research programs is tough, especially when it comes to astrophysics. "You're typically using specialized scientific terminology, the time and space scales are huge, and you're describing phenomena that are invisible," points out Research Scientist Orsola De Marco. "And you have to convey why they're important." If the biggest editorial challenge is telling a visual story about something that the naked eye often can't see, the technical challenge comes from working in so many different media types. A staff of only 14, not counting the scientific advisors and Rose Center staff who provide technical assistance, does all the production, "which is rare in this field," comments Senior Producer Vivian Trakinski, manager of the Bulletins project.

The Bulletins were designed with the idea of disseminating them to other museums, but this involved a technical first: encoding high-definition video efficiently enough to enable distribution and weekly updating over the Internet. "Now I'd call it cutting-edge technology, but when I first came, it was bleeding edge," acknowledges Distribution Manager Len Siegfried with a grin. It took many hours of figuring out the encoding process, a high-bandwidth Internet connection for the Museum, and the evolution of MPEG2 technology. But now, for the cost of the basic hardware plus a modest subscription fee, science centers, museums, and other sites can receive the Bulletins online every week like clockwork. Twenty institutions in 14 states and Canada are already on board, including five NASA facilities.

Trakinski loves working with her "phenomenally talented" Bulletins crew, as well as the opportunity to document science in action. Among other expeditions, she's observed cosmic microwave radiation with scientists in Antarctica and traveled to Sioux City, Iowa, to cover the birth an ox-like animal called a gaur, the first endangered species to be cloned. This "inside scoop" on how science is done enables the Bulletins to engage museum visitors across the country in the nature and scope of ongoing scientific discovery of the highest caliber.

The AstroBulletin is generously supported by Toyota Motor North America, Inc. Significant educational and programming support is provided by the National Aeronautics and Space Administration (NASA).

The EarthBulletin is generously supported by Morgan Stanley.

Funding for the BioBulletin provided by The New York Times Company Foundation.

Science Bulletins crew working on the BioBulletin Wild at Heart, *about elephants in Thailand* | AMNH

Members' Programs

Programs are available to Members only, unless a non-Member's price is given.

Dr. Leslie Aiello

LECTURES

Life in the Ice Age

Thursday, April 22 ML042204
7:00 p.m.
LeFrak Theater
$12 ($15 Non-Members)

This special lecture by Dr. Leslie Aiello on human origins is presented in collaboration with The Leakey Foundation (San Francisco, California). Aiello will discuss the patterning of human occupation in Ice Age Europe.

Between 60,000 and 25,000 years ago, Neanderthals gave way to modern humans in Europe. New research shows that this was a period of many abrupt fluctuations between relatively warm periods and cold intervals. It also shows that Neanderthal archaeological sites are limited to areas where the average winter wind chill was above zero degrees Farenheit, while contemporaneous and later sites attributed to *Homo sapiens* are found in colder areas. This suggests that modern humans had developed cultural means to cope with life in areas of Europe that were simply not accessible to the Neanderthals.

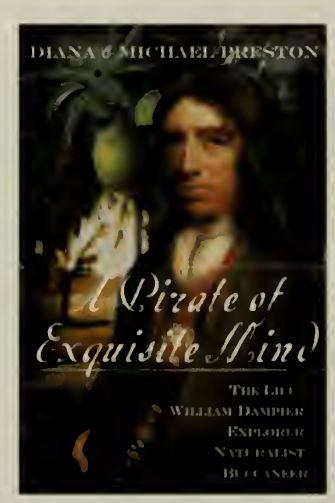
Aiello heads the Anthropology Department at University College London. Her current interests include the broader issues of evolutionary theory, life history, and the evolution of the brain and cognition.

A Pirate of Exquisite Mind: The Life of William Dampier

Thursday, May 6 ML050604
7:00 p.m.
Kaufmann Theater
$12 ($15 Non-Members)

Discover the extraordinary story of the explorer and pirate William Dampier (1651–1715). At a time when merely surviving a voyage across the Pacific was cause for celebration, Dampier journeyed around the world three times, sailing more than 200,000 miles in his lifetime. As a young man he spent several years in the swashbuckling company of buccaneers in the Caribbean. Later, his books about his experiences were a sensation, and his observations and insights influenced generations of scientists, explorers, and writers. Yet while the exploits of Cook, Shackleton, and a host of other legendary explorers have been widely chronicled, those of Dampier are practically unknown today. This omission has been redressed by Diana Preston (along with husband Michael) in the new biography, *A Pirate of Exquisite Mind: The Life of William Dampier*.

Preston is also the author of *Lusitania: An Epic Tragedy*; *The Boxer Rebellion*; and *The Road to Culloden Moor*. She and her husband live in London.



Vertebrate paleontology storage in the C. V. Starr Natural Science Building | R. Edwards/AMNH

BEHIND-THE-SCENES TOUR

Behind the Scenes in Paleontology

Thursday, March 18 MB031804
6:30, 7:00, or 7:30 p.m.
$30

Explore one of the world's largest fossil collections. See dinosaurs from North America and Mongolia, and learn how fossils are prepared for study and display in the Department's fossil preparation laboratory. Jeanne Kelly, Supervisor of Fossil Preparation, and Carl Mehling, Collection Manager, will guide you through the Museum's Fossil Amphibians, Reptiles, and Birds collection.

EXPEDITIONS

Fossils on Fifth Avenue

Saturday, April 3 MW040304
10:00 a.m.
12:30 p.m.
$22

Have you ever noticed the fossilized clams, the pieces of 350-million-year-old coral reefs, or the extinct chambered animals as you strolled Fifth Avenue? Join geologist Sidney Horenstein for a walking tour to explore the ancient fossils and rocks of Manhattan that can be found among the modern elegance of Fifth Avenue.

For tickets, call 212-769-5200 or visit www.amnh.org. All Members' programs require advance registration.

The Museum: Inside and Out

Thursday, April 22 MW042204
Thursday, April 29 MW042904
5:30 p.m.
$22

Explore the building stones of the Museum and the fossils within them with geologist Sidney Horenstein. Start inside and survey the variety of stones used in the Museum's construction, and discover the geological history revealed there. Then, take a walk around the outside for a fascinating overview of the geology and geography of the site and the diversity of architectural styles that house this landmark institution.

Frederick Edwin Church. El Khasné, Petra, *1874. Oil on canvas.* | © Olana State Historic Site, New York State Office of Parks, Recreation and Historic Preservation

Olana

Saturday, April 24 MO042404
8:30 a.m.–5:30 p.m.
$115

Named for a fortress treasure house in ancient Persia, Olana was the home of artist Frederic Edwin Church (1826–1900). Built high on a hill near Hudson, New York, now as then, Olana offers magnificent sweeping vistas of the Catskills and the Hudson River.

After visiting the ancient city of Petra while on a tour of the "Holy Land" with his family, Church painted a view of El Khasné (the Treasury), the iconic rock-cut tomb in Petra. This painting usually hangs in the sitting room of his home, but is currently on display in the exhibition *Petra: Lost City of Stone* at the Museum.

Meet the curator of this magnificent historic house and enjoy a private tour. Have lunch at a lovely restaurant in nearby Hudson, then take time to explore on your own this charming town of antique shops and galleries. Chartered coach, lunch, and admissions are included in the cost.

Fossil Collecting in the Helderbergs

Saturday, May 1 MO050104
8:00 a.m.–6:00 p.m.
$80

Bring your rock hammer, collecting bag, and lunch and join geologist Sidney Horenstein for an exploration of John Thatcher State Park, situated on the edge of the Helderberg escarpment and the Indian Ladder region near Albany, New York. Walk the geological trail beneath a waterfall and view entrances to caves. Later, prospect for Devonian invertebrate fossils at two other sites outside the Park. Cost includes transportation by chartered coach.

Healing Plants of Central Park: An Herbal Weed Walk

Saturday, May 22 MW052204
Sunday, May 23 MW052305
2:00 p.m.
$22

Reconnect with your roots by discovering the medicinal plants and foods of Central Park. This two-hour program begins with a brief discussion of western herbalism, after which Museum educator Rachel Connolly guides a green journey into the park. The program will conclude with a cup of tea and some resources for further exploration of these very useful plants.

FREE HALL TOURS

Exploring Color: Blue

Saturday, April 24 MT042404
Sunday, April 25 MT042504
4:00 p.m.
Free (Registration required)

Blue is the second in a series of tours, Exploring Color. These programs will investigate our perception and interpretation of color, as well as the science involved. Blue is the color of sapphires and sunny skies. What is a blue moon? Are blue stars cool or hot? Why is this the Blue Planet? Join Museum Tour Guide Donna Walcavage to find out the answer to the age-old question, "Why is the sky blue? "

STAR SHOW

A Night Out on Saturn and Mars

Wednesday, May 12 ML051204
7:00–8:30 p.m.
Hayden Planetarium Space Theater
$15 ($18 Non-Members)

Get the best sky view in Manhattan—under the stars in the Hayden Planetarium Space Theater. Learn how to locate the planets which are visible this spring with Space Theater programmer Matthew Dougherty. Then, buckle your seat belts for a true 3-D journey beyond Earth with Carter Emmart, Rose Center Director of Astrovisualization. Join up with NASA's latest robotic missions—traverse the real surface of Mars and fly alongside the Cassini probe to preview its upcoming four-year mission around Saturn and its rings and moons.

Conservation Training Around the World

A conversation with Dr. Nora Bynum, Network of Conservation Educators and Practitioners Project Director at the Museum's Center for Biodiversity and Conservation (CBC)

Q: What is the Network of Conservation Educators and Practitioners (NCEP), and why did the CBC create it?

The idea for the project began when Dr. Eleanor Sterling, Director of the CBC, and I were in graduate school. A number of students in our program conducted research in countries with extraordinary biodiversity, much of which was being decimated at an alarming rate. In these countries, our professional colleagues asked us for materials and resources to teach biodiversity conservation—and we had very little to give them that was appropriate for their countries. This lack of teaching materials hampered their ability to train future generations of conservation and environmental professionals.

Both Eleanor and I finished our degrees and went on to do other things, but we never forgot the needs expressed by our colleagues. Several years ago, Eleanor led a group of us in initiating a project to develop teaching resources in a systematic and comprehensive manner. So the NCEP of the CBC was born, with the twin goals of creating and disseminating locally relevant, up-to-date resources for teaching biodiversity conservation, and connecting conservation practitioners in the field with educators in the classroom. I came on as Project Director a little over a year ago from a previous position at the Organization for Tropical Studies, and it has been a great pleasure to work with the CBC and our partners from around the world to further develop this project.

Ana Luz Porzecanski and Nora Bynum at an NCEP workshop in Mexico | CBC/AMNH

Q: What do you mean by "locally relevant" materials? Can you explain how these materials are unique?

A great example of the need for locally relevant materials comes from Madagascar—a country of unique biodiversity, with many animals found no place else in the world—where our colleagues informed us that for many years they relied on texts that dealt with European animals such as bears and foxes, which are not found in Madagascar. There are several things that make NCEP materials unique. One is that they are open-access resources, which means that a teacher can take our materials and modify or customize them to their own needs without fear of copyright infringement. In addition, NCEP teaching resources are available free of cost to users, a factor that is especially important for many countries where resources for education are scarce. Finally, the materials are explicitly designed to facilitate active teaching and learning methods, in the belief that we best train people to work in biodiversity conservation by these methods and the development of critical thinking skills.

Our focus on locally relevant materials has also been driven by the experiences of the CBC's international graduate students. As students were finishing their programs in the United States and returning to their home countries, they needed up-to-date teaching resources that reflected their educational experiences. Participation

International graduate student Nuria Burnal working in Bolivia | CBC/AMNH

of students and former students has been instrumental in the program's success, as exemplified by Ana Luz Porzecanski, who has recently completed her doctorate and is currently working as NCEP Coordinator for Latin America, and

Vanessa Rasoamamapianina of Madagascar, who will coordinate NCEP activities in that country after finishing her master's degree at Columbia University this coming year.

Q: What exactly is "active learning"?

In active teaching and learning, students are not just passive recipients of information, but rather are users and creators of new knowledge. NCEP materials consist of learning modules that include various components such as a detailed background document for teachers, a visual presentation with accompanying notes, and a practical exercise for use with students. The exercises in particular are designed to emphasize student participation, critical thinking, and the application of conservation principles to real-life situations.

Q: Where is NCEP currently working?

NCEP is active in Bolivia, Mexico, Madagascar, Vietnam, Lao PDR, and the U.S. In some cases—as in Bolivia, Madagascar, and Vietnam—the CBC already had well-developed research and conservation programs, so they were logical sites for the project. Other countries were chosen because of strategic opportunities; for example, our partner organization, The Wildlife Conservation Society, was able to move the project forward in Lao PDR by integrating NCEP into their exisiting university outreach programs. We have also chosen to work in some countries, such as Mexico, which have the potential to serve as regional leaders for the project by virtue of the high degree of development of their higher-education system. We began the project with a strong international focus, but it was not long before our colleagues in the United States indicated there was a need for such materials here as well. NCEP module development and dissemination is very active in the United States, thanks to funding from the National Science Foundation.

Vanessa Rasoamamapianina | CBC/AMNH

Practicing environmental field techniques during a workshop in Lao PDR | CBC/AMNH

In the past year, we have completed an initial set of core modules in English, French, Lao, and Spanish, and run workshops and training events in Bolivia, Lao PDR, Madagascar, Mexico, the United States, and Vietnam. Eventually, we plan to develop approximately 100 modules on a variety of topics in biodiversity conservation. As word of the project spreads, we hope to be able to make NCEP modules available to teachers and trainers in biodiversity conservation all over the world. Although we will continue to work with local partners to develop new modules and offer workshops and training events, electronic dissemination (via the Internet) will be an important tool to make NCEP resources available even in locations where the project does not have a physical presence.

Q: How can people access NCEP?

We have just redone our Web site to make it easier to access our modules and promote dialogue among educators and other users. Please visit us at http://research.amnh.org/biodiversity/ncep/.

The CBC's Network of Conservation Educators and Practitioners has been generously supported by the National Science Foundation, US Fish and Wildlife Service, The John D. and Catherine T. MacArthur Foundation, The New York Community Trust, The Schwartz Family Foundation, Association Liaison Office for University Cooperation in Development (ALO), The Overbrook Foundation, The Christensen Fund, and the Munson Foundation.

Ned Kahn: Art/Sci Collision

From 1982 to 1996, Ned Kahn was Artist-in-Residence at San Francisco's Exploratorium science center, where he created some of their best-known exhibits. Several of these incredible works are included in the exhibition *Exploratorium/AMNH*, on view from January 31 to August 15, 2004. Kahn will be here to discuss his work, both old and new, on May 18, 2004.

In preparation for his visit, Ned Kahn sat down with Ellen Silbermann, Museum Educator, for a brief discussion of his work:

Q: As I researched your work for this article, I was struck by two things—its simplicity and incredible beauty. Often in exhibit design, science is complicated and wordy or lost in metaphors. However, you seem to have reduced actual phenomena, capturing them. Could you talk a bit about the inspiration and creation of these sculptures?

I have a whole studio that's basically a laboratory filled with containers of weird sands, glass beads, motors, and all sorts of spinning things. All those things just evolve through experimenting and trying things out. For every one I end up finishing, there were ten others that were not interesting, or failed due to some technical flaw.

Q: You once said that the pieces that make it past the testing stage to get realized are "the phenomena that fall in that middle ground between order and disorder." What did you mean by that?

Often, I experiment and play around until I find something that intrigues me. Usually the things that intrigue me have this mixture of order and disorder about them. There are definitely patterns and pleasing structures that the eye and the mind pick up, but the ones that really appeal to me do so because they keep doing novel and different things. For me, a work is successful when there is some order so your mind perceives patterns, but also enough complexity and intricacy of behavior so it keeps on surprising.

Ned Kahn in front of Wind Portal, *his new installation at the San Francisco International Airport BART station* | Bruce Forrester

Q: I was also impressed by the connection you make with the urge people have to make sense of the natural world. What are your feelings on the worlds of art and science, how they've become so split?

That's a really interesting question. In the early days, there was no divide: understanding the natural world was science and art and survival. I think about how a lot of my pieces deal with fire and water, which are both things people say, "Oh, I could stare at that for hours," about. It's something that's always intrigued me. What is it about those things that allows you to look at them for hours? Humans have been staring at fire and water for millions of years; those patterns and those complex but beautiful motions are burned into our consciousness on a really deep level. A few things I've made have tapped into that deep connection we have with those phenomena.

Q: And finally, as an artist and now a parent, how do you feel about inspiring our children to not lose this joy of play, the observation of the world that they do so naturally?

I view my work as giving people an opportunity to practice that art of observing and creating your own theories. My observation of our modern world is that more and more, someone else mediates things for us. You watch television or the Internet, everything on there someone else has already processed for you. So, the opposite of that is to just be you, face-to-face with something you've never seen before, some weird, intriguing, beautiful, natural phenomenon, and then just kind of revel in your sensory experience of it and draw your own theories about what is going on. From watching people play with the things I've made, it seems to me I'm giving them a chance to exercise that part of their mind that's kind of atrophied in the modern world.

BLAST OFF WITH THE ULTIMATE ROCKET KIT!

Now your kids can soar into space with DK's Ultimate Rocket Kit. This amazing hands-on learning toy lets kids build a launching pad and four different rockets, each with its own mission, using easy-to-follow direction cards that guarantee success in space! For ages 8 and up. To order, please call 212-769-5792.

A GIFTED IDEA.

AMERICAN MUSEUM OF NATURAL HISTORY

WWW.AMNH.ORG

General Information

HOURS

Museum: Daily, 10:00 a.m.–5:45 p.m.
The Rose Center remains open until 8:45 p.m. on Friday. The Museum is closed Thanksgiving and Christmas.
Space Show: Every half hour, Sunday–Thursday and Saturday, 10:30 a.m.–4:30 p.m., Friday, 10:30 a.m.–7:00 p.m.
Research Library: Tuesday–Friday, 11:00 a.m. –4:00 p.m.
Hours are subject to change.

ENTRANCES

During Museum hours, visitors may enter through the subway (lower level), Central Park West at 79th Street (second floor), and the Rose Center/81st Street entrances. The 77th Street and Weston Pavilion/Columbus Avenue entrances are closed until further notice.

TRANSPORTATION AND PARKING

Subway: B (weekdays) or C to 81st Street; 1 or 9 to 79th Street
Bus: M7, M10, M11, or M104 to 79th Street; M79 to Central Park West
Parking Garage: Open daily, 8:00 a.m.–11:00 p.m.; enter from West 81st Street. Members receive a discounted rate of $10 if entering after 4:00 p.m. To receive this rate, you must have your parking ticket validated at the Security Desk (first floor, Central Park West entrance). For more information, call 212-313-7278.

FOOD SERVICE

Museum Food Court: Daily, 11:00 a.m.–4:45 p.m. (*lower level*)
Café on 4: Daily, 11:00 a.m.–4:45 p.m (*fourth floor*)
Café 77: Daily, 11:00 a.m.–4:45 p.m (*first floor*)
Hours are subject to change.

MUSEUM SHOP

The following Museum Shops are open during regular Museum hours:
Main Shop (*first and second floors*)
Dinostore and More (*fourth floor*)
Planetarium Shop (*Rose Center, lower level*)
Satellite Shop (*Rose Center, first floor*)
Petra Shop (*fourth floor*)
Butterfly Shop (*second floor*)
Exploratorium/AMNH Shop (*third floor*)

PHONE NUMBERS

Museum Information	212-769-5100
Membership Office	212-769-5606
Planetarium Information	212-769-5900
Member Birthday Parties	212-769-5606
Education Department	212-769-5310
Planned Giving Office	212-769-5119
Discovery Tours	212-769-5700
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
Web Site	www.amnh.org

AMNH eNotes delivers the latest information on Museum programs and events to you via email. Visit www.amnh.org to sign up today!

AMERICAN MUSEUM OF NATURAL HISTORY

Chinese gliding frog

Rotunda.
American Museum of Natural History
Received on: 02-25-04

a variety of colorful and melodious live frogs this summer! If you've never thought of frogs as beautiful to see and hear, this exhibition will change your mind.

With appreciation to Clyde Peeling's Reptiland.

Membership Department
Central Park West at 79th Street
New York, New York 10024-5192
www.amnh.org

rotunda

VOL. 29 NO. 4 JULY/AUGUST/SEPTEMBER 2004

MEMBERS' NEWSLETTER

QH70
.U52
N5
v. 29
no. 4
Jul-Aug
2004

AMERICAN MUSEUM OF NATURAL HISTORY

Museum Notes

Velvet mites in Madagascar | © Piotr Naskrecki

CURRENTLY ON VIEW

Frogs: A Chorus of Colors

Through October 3
Gallery 77

This captivating exhibition introduces visitors to the colorful and richly diverse world of frogs, from the tiny golden mantella frog (less than an inch long) to the enormous African bullfrog (up to eight inches in diameter). Approximately 25 species from around the world spend this summer in their re-created habitats, complete with rock ledges, live plants, and waterfalls. The exhibition explores the biology of these popular amphibians, their importance to ecosystems, and the threats they face in the world's changing environments.

Frogs: A Chorus of Colors *is presented with appreciation to Clyde Peeling's Reptiland.*

Exploratorium/AMNH

Through August 15
Gallery 3

Exploratorium/AMNH brings an exciting and creative dimension to the way visitors learn science. A collection of engaging interactive displays, on loan from the renowned Exploratorium in San Francisco, invites visitors to explore fundamental concepts and phenomena in the natural sciences. Hands-on exhibits clustered around four themes—Earth processes, rotation, mirrors and illusion, and pendulums—encourage visitors of all ages and all levels to investigate and play.

Exploratorium/AMNH *is funded in part by a grant from the Small Business Administration. For information on accessibility, call 212-769-5100.*

Seasons of Life and Land: Arctic National Wildlife Refuge

Through September 6
IMAX® Corridor

This exhibition, focusing on the interdependence of land, water, wildlife, and humanity, features stunning large-format color photographs by Subhankar Banerjee, a conservationist who spent two years in Alaska documenting the biodiversity and indigenous cultures of the Arctic Refuge.

Art for Heart

Through September 26
School Reception Area

Paintings by children who lost loved ones in the attacks on New York City's World Trade Center on February 26, 1993, and September 11, 2001, create a powerful and poignant memorial.

Made possible by/thanks to: Lower Manhattan Development Corporation; White & Case LLP; Toys 'R' Us; 92nd Street Y; Jewish Community Center Metro West; Sid Jacobson Jewish Community Center; Family and Children's Agency, Inc.; Stamford Jewish Community Center.

Vital Variety: A Visual Celebration of Invertebrate Biodiversity

Through Spring 2005
IMAX® Gallery

This exhibition pairs extraordinarily beautiful close-up photographs with informative captions that highlight the importance of the immense diversity of invertebrates, which constitute more than 80 percent of Earth's known species and play a critical role in the survival of humankind.

PLANETARIUM SHOWS

SonicVision

Fridays and Saturdays, 7:30, 8:30, and 9:30 p.m.

Get ready for the mind-warping experience of your life! *SonicVision* is a trip out of this world and into the minds of the universe's most creative digital animators, set to a soundtrack of today's coolest music. Hypnotic visuals and rhythms suround viewers, taking them on an unforgettable ride through fanastical dreamscape.

Presented in association with MTV2 and in collaboration with renowned artist Moby.

SonicVision *is made possible by generous sponsorship and technology support from Sun Microsystems, Inc.*

The Search for Life: Are We Alone?

This Space Show will whisk you on an incredible journey from the lightless depths of Earth's oceans to newly discovered planets on a quest for worlds that might support life.

The Search for Life: Are We Alone? *is made possible through the generous support of Swiss Re.*

The Sea of Clouds exhibit | D. Finnin

Passport to the Universe

The original Hayden Planetarium Space Show, narrated by Tom Hanks, is back by popular demand!

The Space Shows were developed by the American Museum of Natural History in collaboration with the National Aeronautics and Space Administration (NASA). Written by Ann Druyan and Steve Soter. Music by Stephen Endelman.

IMAX® MOVIES

Samuel J. and Ethel LeFrak Theater
Call 212-769-5100 for showtimes.

Bugs!

This live-action rain forest adventure follows the dramatic lives of a praying mantis and a graceful butterfly and ends with their inevitable encounter.

The caterpillar of the great Mormon butterfly | Bugs! © 2003

Through July 16
Volcanoes of the Deep Sea

Twelve thousand feet down, life is erupting. Travel to the most remote and hostile environment on Earth, on the deep sea floor, where strange creatures live in extreme temperatures and impenetrable darkness.

Opens July 17
Lewis & Clark: Great Journey West

This film re-creates the historic journey of Meriwether Lewis and William Clark through the uncharted West. Offering stunning views of the dramatic lands they traversed, the film chronicles the challenges they faced and the assistance they received from Native Americans along the way.

AND DON'T MISS...

Look What People Are Saying about AMNH Birthday Parties!

"The kids' attention was held throughout the party and the staff was enthusiastic and knowledgeable. All our guests thoroughly enjoyed the party! A huge A+."

—*Evelyn Wilkens,* ***Adnan's 5th birthday Underwater Treasures Party***

"Thank you so much for a terrific party! I got so many compliments from our guests. The party planners at our party were absolutely wonderful."

—*Eileen Tang,* ***Michael's 4th birthday Dinosaur Discoveries Party***

Travel back in time millions of years to when dinosaurs ruled the earth via our ***Dinosaur Discoveries*** party. As Expert Paleontologist, the birthday child guides party guests on a dinosaur dig. Then it's on to the fossil halls where guests will learn how paleontologists use evidence such as tracks and bones to unravel the mysteries of these tremendous animals.

In addition to ***Dinosaur Discoveries***, Linda Kaye's Partymakers presents ***Underwater Treasures, Global Mysteries, Cosmic Blastoff,*** and ***Safari Adventure*** parties, each offering a winning combination of education and entertainment. Parties are tailored for children ages 4 and up and are available seven days a week as a benefit to Contributor and higher-level Members only. For more information and to request a date, see our online brochure at www.partymakers.com or call Linda Kaye's Partymakers at 212-288-7112.

Cover: *The Discovery Room* | R. Mickens/AMNH

New from Restaurant Associates

Enjoy a taste of the vibrant Caribbean islands this summer at Café Caribe, which recently opened in the Museum's 77th Street lobby. Creole conch chowder, Cuban sandwiches, and a jerked chicken salad are among the menu highlights. As always, Members receive a 15% discount in the Museum's dining facilities—simply present your Membership card at the start of your transaction.

Honors for the Milstein Hall of Ocean Life

The Milstein Hall of Ocean Life, which reopened in May 2003 after a spectacular renovation, was one of the winners in this year's Excellence in Exhibition Competition, sponsored by committees of the American Association of Museums. The hall received an award of excellence in the area of exhibition interpretation. The hall was also honored recently for its effective use of lighting, winning an Edwin F. Guth Memorial Special Citation Award from the Illuminating Engineering Society, as well as a 2004 Lumen award from the Society's New York section.

Summer is a perfect time to visit the hall and marvel at its most celebrated inhabitant: the 94-foot-long blue whale model that arches majestically across the ceiling.

rotunda

ISSN 0194-6110
USPS Permit #472-650
Vol. 29, No. 4, July/August/September 2004

Lewis W. Bernard, *Chairman*
Ellen V. Futter, *President*
Lynn DeBow, *Senior Vice President for Development and Membership*
Rosemary Caulk, *Director of Membership*

Rotunda is published bimonthly, except for a combined issue in July/August/September and a single issue in December, by the Membership Office of the American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192. Phone: 212-769-5606. Web address: www.amnh.org. Museum membership of $55 per year and higher includes a subscription to *Rotunda*.

©2004 American Museum of Natural History.
Periodical postage paid at New York, NY, and at additional mailing offices. Postmaster: Please send address changes to *Rotunda*, Membership Office, AMNH, at the above address. Printed in the USA.

The Discovery Room

Every week, 4-year-old Lola announces to her father: "I want to go to the museum with the little drawers again." Those little drawers—in a cabinet for a child's curiosity—are full of fascinating real specimens that reflect the scientific collections of the American Museum of Natural History. The cabinet is just one of many areas of exploration in the Museum's Discovery Room.

The Discovery Room is a permanent, inquiry-based space for family learning. Going beyond the "look and touch" approach to artifacts and specimens, the Room is designed to encourage visitors, especially children 5–12, to engage in the process of science and enjoy purposeful investigations. Children and their adult companions have fun learning together in a warm, inviting environment—a gateway to the rest of the Museum and to experiences outside its walls.

Children can explore "the little drawers," which contain specimens to be sorted | Samantha Katzeff

Every major field of the Museum's scientific research is represented, from anthropology and astrophysics to vertebrate and invertebrate zoology. Paleontology is a favorite. Though there are real fossils available to touch and read about, visitors rush to assemble the model skeleton of *Prestosuchus*, a 14-foot, life-sized Triassic reptile. Young scientists can also excavate an oviraptorid nest that is an exact replica of the Museum specimen brought back from the Gobi desert. "Big Mama's" bones are in a firm matrix so children, who will happily

Activities for older children are available on the upper level of the Discovery Room | Jay Holmes

labor for a length of time their parents sometimes bemoan, learn that careful and sometimes tedious work is needed for good scientific results.

Budding biologists can make a survey of the tropical birds, insects, reptiles, and mammals found in a majestic two-story replica of an African baobab tree. Equipped with clipboard sheets of animal silhouettes, flashlights, and magnifying lenses, visitors look up into branches, search crevices in the trunk, and kneel for an "underground" look.

On the Room's upper level, a lab setting contains state-of-the art microscopes. Pond water can be examined for microorganisms. A petroscope reveals beautiful crystal patterns in thin slices of rocks and stony meteorites. There are also several small living specimens that repeat visitors can keep track of. What has happened to the hermit crabs from the Bronx? Have the dermestid beetles cleaned off the delicate bones of the fish yet? Have the tadpoles turned into frogs? And why, why, is the spotted salamander always hiding?

Staff, volunteers, and student interns work hard to keep the specimens healthy and the information up to date. They point out books and computers in the Room to use for further research. And they design new games, puzzles, and small exhibits such as "Puppets from around the World" in the anthropology section. Their aim is to let children take ownership of the Discovery Room and encourage future Museum-goers who will treasure the collections as gateways to wonder and knowledge.

The Discovery Room is updated regularly, offering learning opportunities for visitors of all ages. As 31-year-old Steven from Texas wrote in the Room's guest book, "It was a great educational experience for a 26th grader."

The Discovery Room is on the first floor near the canoe at the 77th St. elevators. Admission is free. Passes for 40-minute sessions are available at the Room on a first-come, first-served basis.

HOURS:

September 7–June 30: Monday–Friday, 1:30 p.m.–5:10 p.m.; Saturdays, Sundays, and public school holidays, 10:30 a.m.–1:30 p.m. and 2:15–5:10 p.m.

July 1–September 6: Daily, 10:30 a.m.–1:30 p.m. and 2:15–5:10 p.m.

SPECIAL PROGRAMS:

Gateway Storytime: Mondays during the school year (except school holidays). Ages 2 1/2 and up, accompanied by an adult.

Meet the Scientist: Occasional Saturday afternoons throughout the school year. Scientists chat about their work with visitors 5 and older.

Visit the Discovery Room for more details.

The Discovery Room was made possible by the generous support of the Edward John Noble Foundation.

Teacher Professional Development at AMNH

With its 45 permanent exhibition halls showcasing everything from the oceans' depths to the frontiers of astrophysics, over 30 million specimens and artifacts, and a scientific staff of more than 200, the American Museum of Natural History offers unparalleled opportunities for education—for the public, for school groups, and for teachers themselves. In fact, professional development for teachers has been a key focus for the Museum since it opened its doors in 1869.

Serving over 5,700 educators each year, professional development programs conducted onsite at the Museum and online link teachers to current science and help them translate that science into effective teaching. "A textbook is almost out of date in science as soon as it's published," explains Myles Gordon, Vice President for Education. "The Museum's professional development programs connect teachers with the Museum's scientists and their research and support teachers' efforts to deepen their content knowledge, while also showing them how to integrate the tremendous resources we offer into the classroom."

Over the last six years, the Museum has expanded its capacity to provide professional development opportunities for educators, to develop curriculum resources in a wide variety of media, and to support investigations in the Museum by teachers. "We collaborate with teachers and administrators and then build our programs to meet the learning and teaching needs in the classroom," notes Mr. Gordon. Teachers' guides, curriculum modules, and Web sites related to permanent halls and special exhibitions offer guidance and resources for aligning the Museum's offerings with the curriculum standards while bringing science to life for students and teachers alike. From workshops to full courses, professional development experiences at the Museum are designed to be credit bearing and are customized to suit the interests and requirements of schools, regions, and districts.

The need for professional development programs is acute. "There is a severe shortage of qualified and certified science teachers in New York City and around the country," says Maritza Macdonald, the Museum's Director of Professional Development and School Relations. Nationally, only 57 percent of middle-school science teachers majored in or are certified in science. In New York City, a mere 10 of the 474 New York City teachers who taught Earth sciences in the fall of 2001 were accredited in that subject area. "What we'd found," says Mr. Gordon, "was that kids weren't taking the Earth sciences Regents Exam because the courses weren't being taught due to the lack of qualified teachers." Dr. Macdonald continues, "In partnership with the New York City Department of Education and CUNY colleges and universities, we have begun to develop strategies and programs to support teachers' professional growth and their certification in the sciences."

Lehman College (CUNY) graduate students studying local biodiversity in the spring 2004 Museum Resources for Teaching Sciences course at the Museum. | M. Macdonald

Teachers explore physical science phenomena in Exploratorium/AMNH *during Museum Night for Educators, April 10, 2004.* | J. Hong

One of the Museum's latest efforts toward that end is "Project TRUST" (for Teacher Renewal for Urban Science Teaching), a landmark new initiative for the professional development of Earth sciences teachers. Launched in collaboration with CUNY and funded by a $1 million grant from the National Science Foundation, the project will see the Museum enter into a unique relationship with Brooklyn College and Lehman College, where courses and institutes codesigned and cotaught by Museum and college staff will be introduced this summer as graduate-level offerings for teachers.

TRUST courses will provide teachers with opportunities to learn the broad and diverse content of Earth sciences and ways to take advantage of the New York landscape and its scientific resources in teaching their courses. Over the course of three years, 90 teachers will participate in TRUST, working toward their certification in Earth sciences. The project will also work with 30 school administrators on Earth science content and ways in which they can effectively support and evaluate science learning in their schools.

The TRUST project is just one of many ways in which the Museum remains committed to its roles as an amazing asset for the curriculum, a key partner with the City's teacher-training programs, and a vibrant and vivid classroom.

Members' Programs

Programs are available to Members only, unless a non-Member's price is given.

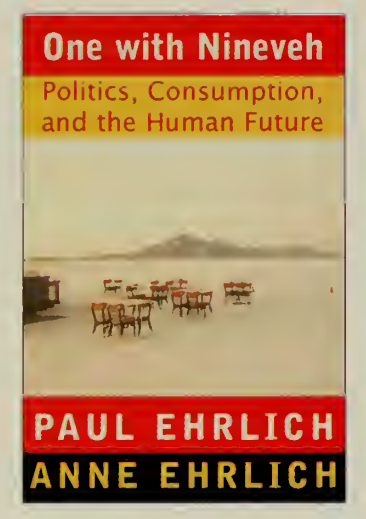
LECTURES

Secret Life of Lobsters

Tuesday, September 21 ML092104
7:00–8:30 p.m.
Kaufmann Theater
$12 ($15 Non-Members)

Journalist and former fisherman Trevor Corson lectures on his book *The Secret Life of Lobsters*, an intimate portrait of a Maine lobstering community struggling to save both its way of life and the lobsters it depends on. Corson will discuss how the lobstermen are aided by ecologists who use unorthodox research methods, employing underwater vacuum cleaners, robots, lasers, scent electrodes, and even super glue.

Corson worked for two years aboard the lobster boat *Double Trouble*. His writings have appeared in the *Atlantic Monthly*, the *New York Times*, the *Los Angeles Times*, and the *Boston Globe*.



One with Nineveh

Thursday, October 7 ML100704
7:00–8:30 p.m.
Kaufmann Theater
$12 ($15 Non-Members)

Paul R. Ehrlich's latest collaboration with Anne H. Ehrlich, *One with Nineveh*, exposes how overpopulation, overconsumption, and political and economic inequity are increasingly shaping today's politics and humankind's future. The authors discuss the ways these factors influence each other, and reveal how we can begin to create a better and more lasting world.

Ehrlich is author of *The Population Bomb*. He is Bing Professor of Population Studies and Professor of Biological Sciences at Stanford University, and has received numerous international honors.

Becoming a Tiger

Tuesday, October 19 ML101904
7:00–8:30 p.m.
Kaufmann Theater
$12 ($15 Non-Members)

How does a baby animal learn what it needs to know to get around in the world? How much of what animals know is instinctual, and how much must they learn for themselves? In her new book, *Becoming a Tiger*, Susan McCarthy addresses these questions, presenting fascinating examples of animal behavior in the laboratory, in controlled "natural" settings, and in the wild.

McCarthy is coauthor of the bestseller *When Elephants Weep*. She holds degrees in biology and journalism, writes regularly for *Salon*, and has contributed to *Best American Science Writing*.

Scientifically Reading

Saturday, October 23 ML102304
5:00–6:00 p.m.
Linder Theater
$12

Calling anyone with an interest in the natural sciences—get a sneak peek at books to add to your winter reading list. Christian Waters, Museum Tour Guide and publishing professional, will present books spanning a range of natural history topics. One lucky participant will receive a set of the evening's recommendations.

EXPEDITIONS

Cretaceous Amber Fields of New York and New Jersey

Tuesday, August 3 MO080304
9:00 a.m.–5:00 p.m.
$80

Join Paul Nascimbene of the Museum's Department of Entomology on a visit to two sites where insects trapped in amber have been found. The first stop is the Clay Pit Ponds State Park Preserve on Staten Island. After a brief visit to the Staten Island Institute of Arts and Sciences, the tour heads to the central New Jersey clay pits. Learn about the sites' geological history and how amber is excavated. Pieces can sometimes still be found, and plant fossils are abundant in both locations. Bring a trowel and collecting bag as well as your lunch. Fee includes transportation by private coach and admission.

The Black Creek Site | Rick Patterson

Black Creek Archaeology

Thursday, August 12 MO081204
9:00 a.m.–5:00 p.m.
$75

The national historic Black Creek Site in New Jersey represents 10,000 years of human history. Artifacts recovered at this ancient settlement attest to the technological and cultural evolution of 500 generations of Lenape Indians whose descendants, even today, consider the Black Creek Site a sacred place. Tour a former flint quarry located within this 450-acre archaeological park. Meet

archaeologist Rick Patterson, who discovered and documented the entire complex. Examine artifacts found by Patterson and learn about the larger cultural and environmental context of the site. Museum Tour Guide Bill Hinchman will accompany the group. Fee includes transportation by private coach.

Bon Voyage! Fall Migration at Jones Beach

Saturday, October 16 MO101604
9:00 a.m.–5:00 p.m.
$75

The barrier islands of Long Island's south shore are some of the Northeast's premier sites for observing fall bird migration. Given the right weather, spectacular numbers of birds can be seen in a day, with raptors, waterbirds, and songbirds expected in mid-October. Join Paul Sweet of the Department of Ornithology for this bird watch at Jones Beach. Bring your binoculars, field guide, and lunch; fee includes transportation by private coach.

A Capital Museum Adventure

Saturday–Sunday, November 6–7 MO110504
$310/person double occupancy; $65 additional/single supplement

Join us for a weekend trip to museums in Washington, D.C. Visit the National Museum of the American Indian (opening on September 21), which features Native American wood and stone carvings, pottery, baskets, masks, clothing, and more. The National Museum of Natural History's new Behring Family Hall of Mammals tells the story of mammal evolution through adaptation to changing habitats. Also explore special exhibitions at other museums. Mesoamerican archaeologist Christina Elson, AMNH Curatorial Associate, will accompany the group. Fee includes transportation by private coach and one night at the Loews L'Enfant Plaza Hotel, breakfast, dinner on Saturday, lectures, and all gratuities.

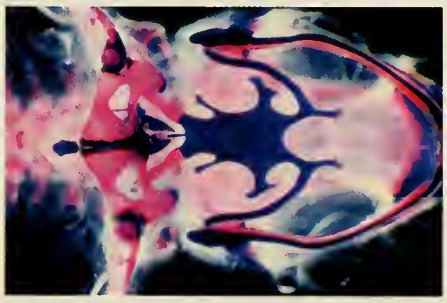
White-tailed deer in the National Museum of Natural History's new Behring Family Hall of Mammals | © Smithsonian Institution, 2003

BEHIND-THE-SCENES TOURS

Behind the Scenes in the Amphibian Collection

Tuesday, September 28 MB092804
6:30, 7:00, or 7:30 p.m.
$30

Curatorial Associate Linda S. Ford and colleagues offer Members this unique opportunity to visit the rarely seen research collections of amphibians and reptiles in the Department of Herpetology. The collection consists of more than 350,000 skeletons, skins, shells, and alcohol-preserved specimens, representing frogs, salamanders, caecilians, turtles, crocodiles, lizards, and snakes. Visit research and preparation areas, as well as the sound laboratory. Learn about current research on frogs and the special exhibition *Frogs: A Chorus of Colors*.



Cleared and double-stained preparation of poison dart frog Dendrobates steyermarki | L. S. Ford/AMNH

ADULT WORKSHOP

Field to Lab: Central Park Accessioning Workshop

Saturday, October 23 MK102304
10:30 a.m.–1:30 p.m.
$50

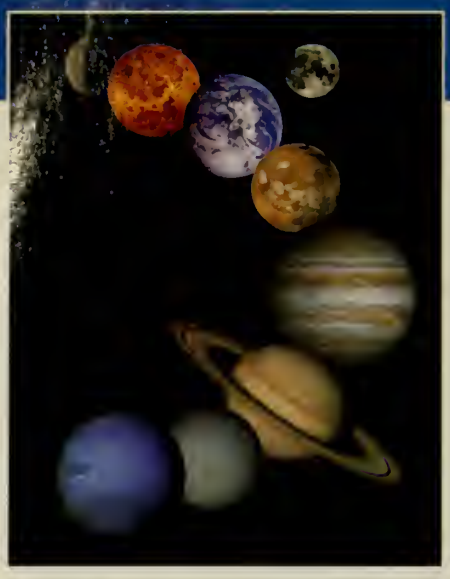
Participants will explore the process of donating a specimen to the Ambrose Monell Collection for Molecular and Microbial Research, which contains frozen tissue samples for use in nonhuman comparative genetic studies. Collection Managers Angelique Corthals and Julie Feinstein will guide the process. Spend the morning collecting insects in Central Park. Back in the lab, participants will prepare a barcoded tube for each specimen, which will be assigned to a permanent position among the frozen tissue samples. Each participant will be recorded as the donor of their specimen in the facility's permanent database, which is public and searchable online.

CHILDREN'S WORKSHOP

Environments and Adaptations: Surprising Ways of Living

Saturday, October 2 MC100204
10:30 a.m.–12:00 noon
1:30–3:00 p.m.
Ages 5–7
Rose Center Classroom
$28

How can some fish in the deep sea light up at will? Ever hear of frogs that develop on their mother's back? What about the exceptional hearing and the very long bony finger of an aye-aye? Have fun learning how organisms fit into their environments in shocking, surprising, and sometimes funny ways. Museum educator Arthur Horan leads this workshop.



NASA

FREE HALL TOURS

The Earth As a Peppercorn

Saturday, August 21 MW082104
Sunday, August 22 MW082204
3:00–4:30 p.m.
Free (Registration required)

It's difficult to fathom the dimensions of our solar system, where planets are relatively small, and the distances between them vast. Step outside to see a model whose scale is true to size and distance: the planet-walk is a 1,000-yard scale model of the solar system—with Earth the size of a peppercorn—that was devised by astronomer Guy Ottewell. Museum Tour Guides will lead this journey of discovery through our solar system and beyond.

Exploring Color: Yellow

Sunday, September 19 MT091904
Saturday , September 25 MT092504
4:00–5:30 p.m.
Free (Registration required)

Yellow is the fourth tour in Exploring Color, a series that investigates our perception and interpretation of color, and the science involved.

The brightest color in the spectrum, yellow is reviled in some cultures and a symbol of imperial status in others. Learn about a pigment used since the Stone Age, and one that's made by feeding mangoes to cattle. Also find out why most pencils in the United States are painted yellow when you join Museum Tour Guide Donna Walcavage for this mellow tour of yellow.

Theodore Roosevelt at AMNH

Saturday, October 16 MT101604
4:00–5:30 p.m.
Free (Registration required)

Theodore Roosevelt, 26th president of the United States, considered the Museum almost a second home—the original charter creating the Museum was signed in his family home in 1869. From the age of 12, when he made his first donation of a stuffed bird and bat to the Museum, through his Museum expeditions and for the rest of his life, he remained committed to the Museum. Join Museum Tour Guide Larry Bassett as he explores Roosevelt's life in relation to the Museum.

PREVIOUSLY LISTED

Limited space may still be available for these programs.

Insects of Sterling Forest

Thursday, July 8 MO070804
2:00–10:00 p.m.
$75

Explore the insect diversity of Sterling Forest State Park with Sacha Spector, Manager of the Invertebrate Conservation Program at the Museum's Center for Biodiversity and Conservation. Hike from wetlands to forests and learn about insect diversity. After a dinner break, investigate the creatures that come out at night. Fee includes transportation by private coach.

Cryptic Arthropods

Thursday, July 22 MO072204
9:00 a.m.–5:00 p.m.
$75

Randy Mercurio of the Division of Invertebrate Zoology leads this visit to Caleb Smith State Park Preserve, where you'll investigate the habitats of ground- and low vegetation–dwelling insects, centipedes, arachnids, and more, and learn about the important ecological role they play. Fee includes transportation by private coach.

Ward Pound Ridge Reservation

Tuesday, July 27 MO072704
8:30 a.m.–3:30 p.m.
$75

Pack a lunch and join educator Dave Karrmann for an expedition to Ward Pound Ridge Reservation in Westchester County. Discover the unique natural history of this area and how it has shaped local culture. On the way, visit the Pound Ridge Historical Society. Fee includes transportation by private coach.

Ribbit a Happy Tune

Wednesday, July 28 MC072804
10:30 a.m.–12:00 noon
1:00–3:30 p.m.
Ages 5–7
Calder Lab
$28

Visit the *Frogs: A Chorus of Colors* exhibition with Museum Tour Guide June Myles. Learn some songs that frogs sing and find out why, when, and how they do it! Then hop along to a craft workshop where you'll make a frog that can "sound off" to take home.

A Long Jump Amphibian in Your Past

Wednesday, August 18 MC081804
10:30 a.m.–12:00 noon
1:00–3:30 p.m.
Ages 5–7
Rose Center Classroom
$28

Frogs have been around since the Age of Dinosaurs. Get to know these ancient amphibians—and some of their modern-day descendants—with Museum Tour Guide June Myles. Then create a jumping frog to take home in your pocket.

AMNH Kids' Culinary Council 2003-2004

The second year of AMNH's Kids' Culinary Council has been another overwhelming success. Congratulations to KCC members William Apicella, Katherine Greisman, J. T. Iacovetta, Jesse Leibross, Joseph Levine, Tobias Levy, Aidan McNally, Emma and Mary Olivia Puglisi, Mary Reagan, and Daniel, Forrest, and Viktor Theiss for their completion of the 2003–2004 term. Over the course of the year these aspiring gastronomes learned about the workings of a professional kitchen, created innovative sandwiches and pizzas, and took a special field trip to the Art Institute of New York City restaurant school to learn about the road to becoming a professional chef.

The year ended for the 2003–2004 council with a special challenge: the kids were asked to create a dessert inspired by the Museum. As graduating chefs, they all took a moment for inspiration to strike before confidently preparing and presenting their final achievements. Each member of the Kids' Culinary Council walked away with memories of culinary fun and a certificate of excellence presented for his/her hard work and commitment to the culinary arts.

This year's Kids' Culinary Council with Chef Anthony Noto | Chuck Banicki

AMNH Kids' Culinary Council CONTEST 2004-2005

Calling all cooks! Restaurant Associates and the Membership Department are accepting submissions for the AMNH Kids' Culinary Council for the upcoming year. Eligible for consideration are children of AMNH Members, ages 8 to 13, with a passion for cooking. Young chefs are invited to submit a recipe inspired by the Museum. Past Council entries have included a megalosaur meatloaf, dinosaur-footprint gnocchi, and a fruit platter inspired by a visit to the *Butterfly Conservatory*. ***Use your imagination!***

Budding chefs making sandwiches | Chuck Banicki

A panel of judges will review all submissions and select the winners based on the recipe's creativity, presentation, and relevance to Museum exhibitions. The Council will serve a one-year term and meet with Executive Chef Bruce Barnes four times. The Council will be invited into the main kitchen of the Museum Food Court (voted best Kid's Café by *New York* magazine) to help oversee food preparations, conduct tastings, and plan menus.

Kids' Culinary Council members will also receive an official AMNH Kids' Culinary Council apron, $25 worth of Space Dollars good for purchases in the Museum Food Court, and a $15 Museum Shop gift certificate.

Recipes must be received no later than September 30, 2004, and be accompanied by a photograph of the prepared dish. Kids who have already served on the Council are not eligible. Winners will be contacted by October 15, 2004. Entries, along with your name, age, Membership number, address, and daytime telephone number should be mailed to:

American Museum of Natural History
Membership Department
79th Street at Central Park West
New York, NY 10024
ATTN: Kids' Culinary Council

Special Events at the Museum

The Museum Ball

November 20, 2003

Jessica and Jerry Seinfeld | D. Finnin/AMNH

Roger Altman, Ellen V. Futter, Dick Beattie, and Tom Brokaw | D. Finnin/AMNH

Jamie Niven, Auctioneer, and Tom Brokaw, Auction Host | D. Finnin/AMNH

The Winter Dance

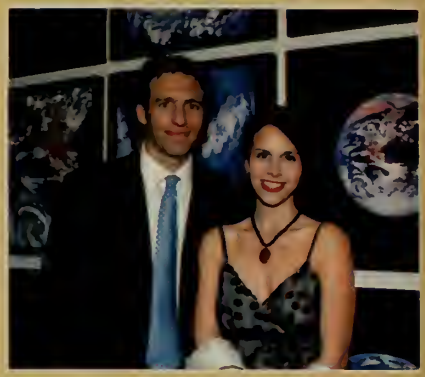
February 19, 2004

Co-chairs: Olivia Chantecaille, Tinsley Mortimer, Lauren Davis, and Claire Bernard in the Milstein Hall of Ocean Life | D. Finnin/AMNH

Moby and Stacey Bendet in the Hall of Biodiversity | R. Mickens/AMNH

Shawna and Ted Doster with Jennifer and Dominic Moross | R. Mickens/AMNH

Junior Council Events



Blake and Maryll Spahn at a screening of SonicVision, *September 25, 2003* | C. Chesek/AMNH

Junior Council members in the Hall of Saurischian Dinosaurs after a special viewing of Petra: Lost City of Stone, *December 4, 2003* | R. Mickens/AMNH

Junior Council members and Lauri Halderman, Managing Editor of the Exhibition Department, at a special viewing of Petra: Lost City of Stone, *December 4, 2003* | C. Chesek/AMNH

Save the Date! Eleventh Annual Family Party

A benefit event to support the American Museum of Natural History
Wednesday, October 20, 2004
5:00 to 7:30 p.m.

A fun-filled adventure for children of all ages with dinosaur discoveries; live mammals, reptiles, and butterflies; science experiments; microscope mania; and much more!

Chairmen: Tory Burch, Meera Gandhi, Liz Lange, Simone Mailman, Perri Peltz, Jane Rosenthal

For more information, please call 212-496-3495 or visit www.amnh.org.

Join the Junior Council

The **Junior Council** is a Museum Membership group of young philanthropic New Yorkers, 22 to 39 years old. Members enjoy an intimate view inside the Museum's collections, activities, and exhibitions. The Junior Council is a great way to meet people with similar interests while previewing the latest, most talked-about exhibitions and going behind the scenes at one of the world's greatest museums.

Enrollment begins in August for a year-long program of activities. For more information, please visit www.amnh.org/join/junior_council or contact Amy Sonnenborn at 212-769-5166 or als@amnh.org.

Members' Open House

The annual Members' Open House for Contributor and higher-level Members was held on the evening of Wednesday, March 3, 2004. Scientists from the Museum's five scientific divisions were on hand to meet Members, discuss their work, and talk about the Museum's collections. Members also had the chance to go behind the scenes in the Department of Mammalogy, visit the special exhibition *Exploratorium/AMNH*, and enjoy the two Space Shows in the Hayden Planetarium.

Scientific presentations in the Rose Center | D. Finnin/AMNH

Members enjoy the exhibition Exploratorium/AMNH | D. Finnin/AMNH

Members listen attentively to a Museum paleontologist | D. Finnin/AMNH

Behind the scenes in the Department of Mammalogy | D. Finnin/AMNH

Good Clean Fun!

Frolic with frogs! Come see our charming collection of merchandise celebrating *Frogs: A Chorus of Colors*. Shown here: mommy-and-babies rubber bath toy; hooded towel (part of gift set that includes bath mitt, finger puppet, washcloth, and plush toy); mommy-and-baby terry bath mitts; set of eight nonskid peel-and-press bath appliqués for play or safety; plush frog slippers (for kids or adults; one size fits most); frog-shaped terry bath mat; frog-shaped soap dispenser; vinyl shower curtain.

AMERICAN MUSEUM OF NATURAL HISTORY

WWW.AMNH.ORG

To place an order, please call 212-769-5792.

Rotunda.
American Museum of Natural History
Received on: 07-02-04

General Information

HOURS

Museum: Daily, 10:00 a.m.–5:45 p.m.
The Rose Center remains open until 8:45 p.m. on Friday. The Museum is closed Thanksgiving and Christmas.
Space Show: Every half hour, Sunday–Thursday and Saturday, 10:30 a.m.–4:30 p.m., Friday, 10:30 a.m.–7:00 p.m.
Research Library: Tuesday–Thursday, 2:00–5:30 p.m.
Hours are subject to change.

ENTRANCES

During Museum hours, visitors may enter through the subway (lower level), Central Park West at 79th Street (second floor), and the Rose Center/81st Street entrances. The 77th Street and Weston Pavilion/Columbus Avenue entrances are closed until further notice.

TRANSPORTATION AND PARKING

Subway: B (weekdays) or C to 81st Street; 1 or 9 to 79th Street
Bus: M7, M10, M11, or M104 to 79th Street; M79 to Central Park West
Parking Garage: Open daily, 8:00 a.m.–11:00 p.m.; enter from West 81st Street. Members receive a discounted rate of $10 if entering after 4:00 p.m. To receive this rate, you must have your parking ticket validated at the Security Desk (first floor, Central Park West entrance). For more information, call 212-313-7278.

FOOD SERVICE

Museum Food Court: Daily, 11:00 a.m.–4:45 p.m. (*lower level*)
***Café on 4:** Saturday and Sunday, 11:00 a.m.–4:45 p.m (*fourth floor*)
***Café Caribe:** Saturday and Sunday, 11:00 a.m.–4:45 p.m (*first floor*)
***Big Dipper Ice Cream Café:** Saturday and Sunday, 12:00 noon–4:45 p.m. (*lower level*)
Hours are subject to change.
** There will be additional weekday hours through Labor Day.*

MUSEUM SHOP

The following Museum Shops are open during regular Museum hours:
Main Shop (*first and second floors*)
Dinostore and More (*fourth floor*)
Planetarium Shop (*Rose Center, lower level*)
Satellite Shop (*Rose Center, first floor*)
Frogs Shop (*first floor*)
Exploratorium/AMNH Shop (*third floor*)

PHONE NUMBERS

Museum Information	212-769-5100
Membership Office	212-769-5606
Planetarium Information	212-769-5900
Member Birthday Parties	212-769-5606
Education	212-769-5310
Planned Giving Office	212-769-5119
Discovery Tours	212-769-5700
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	646-356-6500
Web Site	www.amnh.org

AMNH eNotes delivers the latest information on Museum programs and events to you via email. Visit www.amnh.org to sign up today!

AMERICAN MUSEUM OF NATURAL HISTORY

TOTEMS

Native North American Jewelry Arts of the Northwest and Southwest

OPENS OCTOBER 30

A spectacular exhibition featuring a stunning array of historic and contemporary jewelry and artifacts that celebrate the beauty, power, and symbolism of Native American arts. *Totems to Turquoise* examines techniques, materials, and styles that have evolved over the past 100 years as Native American jewelers have adapted to technical, societal, and commercial changes, transforming their traditional craft into a full-fledged mode of artistic expression.

Membership Department
Central Park West at 79th Street
New York, New York 10024-5192
www.amnh.org

rotunda

VOL. 29 NO. 5 OCTOBER/NOVEMBER 2004 MEMBERS' NEWSLETTER

QH70
U52
5
. 29
o. 5
ct-Nov
004

TOTEMS TO TURQUOISE

Native North American Jewelry Arts of the Northwest and Southwest

Opens October 30

American Museum of Natural History

Museum Notes

Golden poison frog (Phyllobates terribilis) | T. Grant

CURRENTLY ON VIEW

Frogs: A Chorus of Colors

Through January 9, 2005
Gallery 77

Twenty-four species of frogs, from the tiny golden mantella frog (less than an inch long) to the enormous African bullfrog (up to eight inches in diameter) live in re-created habitats, complete with rock ledges, live plants, and waterfalls.

Frogs: A Chorus of Colors *is presented with appreciation to Clyde Peeling's Reptiland.*

Fall Colors across North America

Through March 13, 2005
IMAX® Corridor

The fiery colors of autumn come to life in these images by Anthony E. Cook.

Art in Nature: The Photographs of John Daido Loori

Through January 9, 2005
Akeley Gallery

Striking abstract photographs by Zen master John Daido Loori explore notions of scale in the the dramatic land- and seascape of Point Lobos State Reserve in California.

This exhibition is made possible by the generosity of the Arthur Ross Foundation.

Vital Variety: A Visual Celebration of Invertebrate Biodiversity

Through Spring 2005
IMAX® Gallery

This exhibition pairs extraordinarily beautiful close-up photographs with informative captions that highlight the importance of the immense diversity of invertebrates, which constitute more than 80 percent of Earth's known species and play a critical role in the survival of humankind.

The Butterfly Conservatory: Tropical Butterflies Alive in Winter

October 9, 2004–May 30, 2005
Whitney Memorial Hall of Oceanic Birds

Once again, this popular annual exhibition includes more than 500 live, free-flying tropical butterflies. Visitors can mingle with the butterflies and learn about the butterfly life cycle, defense mechanisms, evolution, and conservation.

Admission is by timed entry only. Tickets are $9.50 for Members and $5.50 for Members' children.

The Butterfly Conservatory *is made possible through the generous support of Bernard and Anne Spitzer.*

PLANETARIUM SHOWS

SonicVision

Fridays and Saturdays, 7:30, 8:30, and 9:30 p.m.

Get ready for the mind-warping experience of your life! Hypnotic visuals and rhythms surround viewers in *SonicVision*, a trip out of this world and into the minds of the universe's most creative digital animators, set to a soundtrack of today's coolest music.

Presented in association with MTV2 and in collaboration with renowned artist Moby.

SonicVision *is made possible by generous sponsorship and technology support from Sun Microsystems, Inc.*

The Search for Life: Are We Alone?

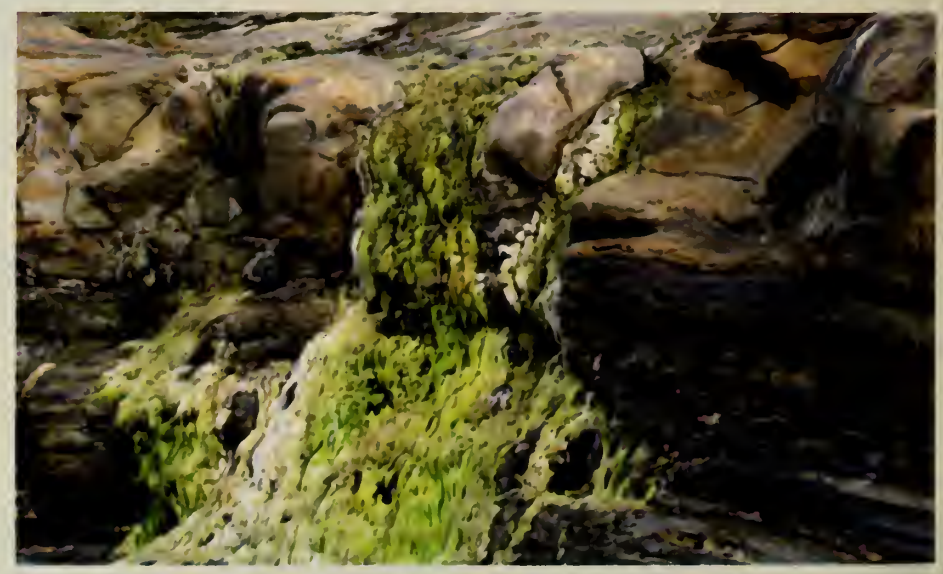
This Space Show will whisk you on an incredible journey from the lightless depths of Earth's oceans to newly discovered planets on a quest for worlds that might support life.

The Search for Life: Are We Alone? *is made possible through the generous support of Swiss Re.*

Passport to the Universe

The original Hayden Planetarium Space Show, narrated by Tom Hanks, is back by popular demand!

The Space Shows were developed by the American Museum of Natural History in collaboration with the National Aeronautics and Space Administration (NASA). Written by Ann Druyan and Steve Soter. Music by Stephen Endelman.



Silent Cascade | © Dharma Communications, 2004; Photographer: John Daido Loori

John Livzey © NGT&F

IMAX® MOVIES

Samuel J. and Ethel LeFrak Theater
Call 212-769-5100 for showtimes.

Lewis & Clark: Great Journey West

Trace the historic journey of Meriwether Lewis and William Clark through the uncharted West and experience the dramatic lands they traversed.

Bugs! Closes Fall 2004

This live-action rain forest adventure follows the dramatic lives of a praying mantis and a graceful butterfly and ends with their inevitable encounter.

Vikings Opens Fall 2004

Discover the historical and cultural impact and scientific and technological achievements of this well-known but little understood society of seafaring explorers.

AND DON'T MISS...

Halloween

Sunday, October 31, 1:00–4:00 p.m.
$7 ($8 Non-Members)

The Museum continues its tradition of opening its halls for a safe and "spooky" Halloween. Bring the kids to enjoy trick-or-treating, arts and crafts, cartoon characters, and live performances.

Help us make Halloween even more special by volunteering to hand out candy or lead activities. Contact Rose Ann Fiorenzo at fiorenzo@amnh.org.

Margaret Mead Film & Video Festival

Thursday–Sunday, November 11–14
Saturday and Sunday, November 20 and 21

Themes for the 28th annual Mead Festival include Native cinema from the Northwest Coast and the Southwest and a tribute to the creator of cinema verité, Jean Rouch (1901–2004). Visit www.amnh.org/mead for details.

New York Shell Club

The New York Shell Club will meet in the Linder Theater on Sunday, November 14, at 2:00 p.m., with a presentation by internationally acclaimed author S. Peter Dance.

Last Chance to Join the Junior Council for 2004–2005!

The Junior Council is a Museum Membership group of philanthropic young New Yorkers, ages 22 to 39. Members participate in a year-long program of specially arranged events and enjoy an intimate view inside the Museum's collections, activities, and exhibitions. It's a great way to meet people with similar interests while previewing the latest exhibitions and exploring behind the scenes at one of the world's greatest museums.

Enrollment for the 2004–2005 season ends December 17, 2004; join now and don't miss a minute of the fun! Please visit www.amnh.org/join/junior_council or contact Amy Sonnenborn at 212-769-5166 or als@amnh.org.

AMNH Birthday Parties

Looking for a fun, educational birthday party for your child? Throw your party at the American Museum of Natural History. There are five hands-on themes to choose from, each offering a winning combination of education and entertainment: ***Dinosaur Discoveries, Safari Adventure, Underwater Treasures, Global Mysteries,*** and ***Cosmic Blast-off.*** The birthday child is the scientist in charge of his or her own expedition.

Parties are tailored for children ages 4 and up and are available seven days a week as a benefit to Contributor and higher-level Members only. For more information and to request a date, see our online brochure at www.partymakers.com or call Linda Kaye's Partymakers at 212-288-7112.

Cover: *(left) Woman in the Moon pendant. Jim Hart (Haida). 2003. Private collection.* | Photo by Kiyoshi Togashi; *(right) "Blessings" bracelet. Raymond Yazzie (Navajo). 2002–2003. Private collection.* | Photo by WindSong Studio

rotunda

ISSN 0194-6110
USPS Permit #472-650
Vol. 29, No. 5, October/November 2004

Lewis W. Bernard, *Chairman*
Ellen V. Futter, *President*
Lynn DeBow, *Senior Vice President for Development and Membership*
Rosemary Caulk, *Director of Membership*

Rotunda is published bimonthly, except for a combined issue in July/August/September and a single issue in December, by the Membership Office of the American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192. Phone: 212-769-5606. Web address: www.amnh.org. Museum membership of $55 per year and higher includes a subscription to *Rotunda*.

©2004 American Museum of Natural History.
Periodical postage paid at New York, NY, and at additional mailing offices. Postmaster: Please send address changes to *Rotunda*, Membership Office, AMNH, at the above address. Printed in the USA.

Totems to Turquoise

Longstanding cultural traditions of Native North Americans are explored in *Totems to Turquoise: Native North American Jewelry Arts of the Northwest and Southwest.* This landmark exhibition of more than 500 pieces of dazzling contemporary and historic Native American jewelry and artifacts celebrates the beauty, power, and symbolism of modern Native jewelry arts. The exhibition also presents contemporary totem sculptures, historic and contemporary masks, and photographs and videos of Northwest Coast and Southwest rituals that are strongly connected with the sociological beliefs of many different tribes.

Artwork presented in the exhibition comes from the Northwest Haida, Kwakwaka'wakw, Tsimshian, Gitxsan, Nisga'a, Tlingit, Nuu-chah-nulth, Nuxalk, Heiltsuk, Haisla, and Coast Salish tribes, and the Southwest Navajo, Zuni, Hopi, Santo Domingo, Apache, Taos and other Pueblos, and other tribes. These magnificent pieces show how techniques, materials, and styles have evolved as Native American jewelers have adapted to technical, societal, and commercial changes, transforming traditional craft into a full-fledged mode of artistic expression.

TOTEMS TO TURQUOISE
Native North American Jewelry Arts of the Northwest and Southwest
October 30, 2004–July 10, 2005
Gallery 3

Groups of spectacular jewelry and objects introduce visitors to the key themes in the exhibition, such as cultural continuity over time and distinct regional styles. Motifs transferred to jewelry from other art forms are represented in masks and blankets, highlighted by a Navajo chief's blanket from the Southwest and a Tlingit Chilkat robe from the Northwest.

Cosmological and societal context is generated within the exhibition space by a section divided into an inner and an outer circle. The inner circle displays jewelry, together with masks, headdresses, pottery, and other historic objects to explore the roles of seasonality (rain, corn, fishing), cosmology (earth-sea duality, the four directions), shamanism, and mythology (Spider Woman and Raven legends) in the Northwest and Southwest cultures. Relationships to nature and religion are beautifully expressed through the art distinct to each region.

Obsidian blade. Artist unknown (Ancestral Pueblo). 1100–1200. | Peabody Museum of Archaeology and Ethnology, Harvard University. Peabody Museum Expedition, 1923. Photo T1680.

The outer circle displays objects and stories relating to community forms: clans, moieties, and house groups. This section contrasts the two geographic regions but also presents similar community rituals, like masked dancing, that pervade both territories. The roles of men and women as they relate to jewelry-making are also explored in this area.

The work of master artists whose pioneering craftsmanship paved the way for the generations that followed include pieces by Charles Loloma, Preston Monongye, and Kenneth Begay in the Southwest; and Charles Edenshaw, Bill Reid, and Robert Davidson of the Northwest Coast.

Basketry hat. Artist unknown (Haida). Late 1800s. AMNH collection. | R. Mickens/AMNH

Eagle "I can see in all directions" Round Mask. William Kuhnley (Nuu-chah-nulth). AMNH collection. | J. Beckett/AMNH

There is also a stunning contemporary totem pole carved by Jim Hart.

The final section of the exhibition explores further commonalities between the two geographic regions, displaying artifacts from the Northwest Coast and the Southwest that suggest intriguing parallels in the past and illustrate mutual influence in the present. Similarities in historical pieces whose creators were separated by hundreds of miles of rugged terrain are little understood, but contemporary objects show how recent meetings of artists from these regions have enriched and inspired new directions for each other's work. A three-monitor video display shows dramatic images of the land and communities, while artists whose work is represented in the exhibition discuss the continuity of art, in particular, jewelry-making as a way of continuing and passing on tradition; art as a way to heal a culture; the sharing of ideas and work between the geographic areas; and the role art plays in teaching those outside their community about their living cultures.

Totems to Turquoise honors a rich, complex, and diverse art form, the foundations of which lie in thousands of years of culture and experience. It is co-curated by Peter Whiteley, Curator of North American Ethnology in the Museum's Division of Anthropology, and Lois Dubin, lecturer, curator, and author of several authoritative books on Native American jewelry. Advising artists are Jim Hart, a Hereditary Chief of the Haida Nation, and an accomplished carver and jeweler, and Jesse Monongya, a highly regarded Navajo and Hopi jeweler whose inlay work is considered to be among the finest today.

Chief's blanket. Artist unknown (Navajo). 1800s. AMNH collection. | R. Mickens/AMNH

Members' Preview
Friday, October 29, 4:00–8:30 p.m.
RSVP 212-769-5606

Katsina dolls. Ernest Moore, Jr. (Hopi). 2001. AMNH collection. | C. Chesek/AMNH

Native North American Buffet

Members Only
Friday, October 29
Choose one of three seatings: 5:30, 7:00, or 8:30 p.m.
$45 Members; $18 Members' children under 12

In conjunction with the exhibition *Totems to Turquoise*, Restaurant Associates presents a traditional Native North American buffet for members. Using indigenous ingredients, Executive Chef Bruce Barnes will prepare a menu that includes pumpkin soup with acorn cake croutons, seafood chowder, cedar-planked roast salmon with juniper glaze, roast wild duckling with elderberry-and-ginger sauce, braised rabbit with wild mushrooms and leeks, and corn-and-onion pie. Also available will be wines and microbrewed beers from Oregon and Washington.

Space is limited; reserve now by calling 212-769-5200.

Members' Programs

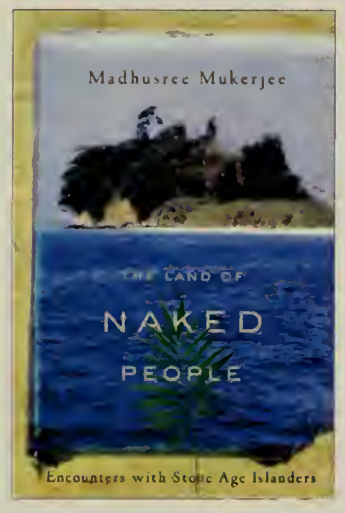
Programs are available to Members only, unless a non-Member's price is given.

LECTURES

No Turning Back

Tuesday, November 16 ML111604
7:00–8:30 p.m.
Kaufmann Theater
$12 ($15 Non-Members)

Richard Ellis's latest book, *No Turning Back: The Life and Death of Animal Species*, gives examples of the disappearance of species with and without human interference. Along with creatures that were driven to extinction recently, Ellis introduces us to those that were brought back from the precipice through diligent conservation efforts.



The Land of Naked People

Tuesday, November 30 ML113004
7:00–8:30 p.m.
Kaufmann Theater
$12 ($15 Non-Members)

In her book *The Land of Naked People: Encounters with Stone Age Islanders*, Madhusree Mukerjee explores the effects of modernization and colonization. Mukerjee chronicles four tribes of isolated natives living on the Andaman Islands who were introduced to modern influences at different periods and reveals a nation torn by land shortages, racial strife, and issues of identity.

History of Astronomy

Saturday, December 11 ML121104
1:00–2:30 p.m.
Linder Theater
Free (Registration required)

Step into the curious minds of astronomers like Ptolemy, Hipparchus, and Copernicus and see how their discoveries contributed to the modern scientific world. Join Museum Tour Guide Bill Hinchman for an examination of how great minds working with early technology changed the history of astronomy.

WALKING TOUR

Horsepower: Evolution of the Horse

Thursday, November 4 MT110404
5:30–8:30 p.m.
$45

Join Museum Tour Guide Suzi Zetkus, longtime equestrian, for a study of the horse—its evolution and domestication and how it has figured in warfare, agriculture, and art since prehistoric times. The Museum's exhibition halls and archival video and images will contribute to an understanding of this fascinating creature. Afterwards, get a behind-the-scenes look and special seating at the 15th annual Metropolitan National Horse Show. Cost includes admission to the Horse Show.

Neohipparion, *a three-toed horse from the lower Pliocene of Texas* | Painting by Charles R. Knight

EXPEDITION

Chelonian Conservation at Work

Saturday, November 13 MO111304
9:00 a.m.–5:00 p.m.
$75

Visit the Tewksbury Institute of Herpetology in New Jersey, dedicated to conservation, research, education, and public awareness. Their collection of some two thousand animals is one of the most significant groups of turtles and tortoises in the world. Over half the world's endangered turtle species are represented. Hike the scenic grounds and tour the Institute with expert guides. Fee includes transportation by private coach.

Inside the lush tropical habitat of the Butterfly Conservatory | C. Chesek/AMNH

BEHIND-THE-SCENES TOUR

Behind the Scenes in the Butterfly Conservatory

Tuesday, November 9 MB110904
6:30, 7:00, or 7:30 p.m.
$30

Have you ever wondered how all the exotic butterflies get to the Museum's annual conservatory? Investigate the work that goes into the presentation of the popular butterfly attraction. Hazel Davies, Exhibition Coordinator, and staff welcome Members to visit behind the scenes of the vivarium and the USDA quarantine laboratory.

Detail from the Coral Reef ecosystem display | R. Mickens/AMNH

CHILDREN'S WORKSHOPS

Environments and Adaptations: Life Underfoot and Under the Sea

Sunday, November 7 MC110704
10:30–12:00 noon or 1:30–3:00 p.m.
Ages 5–7
Rose Center Classroom
$28

Learn about creatures that live beneath our feet with educator Arthur Horan. Search for insects, reptiles, and burrowing mammals in the Museum's dioramas. Then take a plunge into the Milstein Hall of Ocean Life and explore communities of sea life. Young explorers will record what they learn along the way and build creations from their observations.

Gingerbread House Workshop

Saturday, November 27 MC112704
10:30 a.m.–12:00 noon or 1:30–3:00 p.m.
Sunday, November 28 MC112804
10:30 a.m.–12:00 p.m. or 1:30–3:00 p.m.
Ages 5 and up (each child with one adult)
Rose Center Classroom
$50/pair

Back by popular demand, children ages 5 and up are invited to build a house of sweets for the holidays. Museum Tour Guide June Myles is on hand to help little ones construct their own no-bake gingerbread house fantasies. Gumdrops become hedges; taffy becomes gutters; and wafers become shingles—while little hands become very sticky. Bring your imagination and festive spirit.

Plankton Chowder

Sunday, December 12 MC121204
10:30 a.m.–12:00 p.m. or 1:30–3:00 p.m.
Ages 5–7 (each child with one adult)
Rose Center Classroom
$40/pair

Ever wonder what was in the water you swallowed while playing in the waves? The answer is a soup called plankton chowder! Plankton are incredibly important inhabitants of the ocean. Museum educator Amy O'Donnell leads young Members on a tour to discover these creatures in the Milstein Hall of Ocean Life and to learn how they live. Then, children will draw their own plankton and the animal it becomes as an adult.

FREE HALL TOURS

Horses through the Ages

Saturday, November 6 MT110604
4:00–5:30 p.m.
Free (Registration required)

Join Museum Tour Guide and longtime equestrian Suzi Zetkus on a tour to discover the evolution of the horse and how humankind has depended on equines through the ages. Agriculture was made easier by the strength of this animal. And where would children's literature be without characters like Black Beauty or Misty of Chincoteague?

Strange But True Tales of the Animal Kingdom

Saturday, November 13 MT111304
4:00–5:30 p.m.
Free (Registration required)

We live in a world of wonders. Scientists still have a very long way to go to explain many of Mother Nature's secrets. Journey with Museum Tour Guide Larry Bassett as he discusses some of the fascinating and remarkable creatures that share our planet, including astonishing facts about the blue whale, Earth's largest animal.

Curious Minds: How a Child Becomes a Scientist

Thursday, November 18 ML111804
7:00–9:00 p.m.
LeFrak Theater
$12 ($15 Non-Members)

"When I grow up, I want to be..." Many of us can remember the exact moment when we decided to become what we are today. For some, these dreams were met with challenges and diversions that led to unexpected careers. There are others whose lives are devoted to achieving that childhood dream. In the book *Curious Minds: How a Child Becomes a Scientist*, editor John Brockman asks leading scientists to recall moments and events in their childhood that inspired them to follow the paths that defined their lives.

Join us for a fascinating panel discussion with some of the distinguished scientists who have contributed to this book. Myles Gordon, Vice President for Education at AMNH will moderate this inspiring discussion.

Panelists include: **Marc Hauser**, professor of psychology at Harvard University and codirector of the Mind, Brain and Behavior Program; **Joseph LeDoux**, neuroscientist and professor at the Center for Neural Science at New York University; **Janna Levin**, professor of physics at Barnard College; **Michael Novacek**, Senior Vice-President, Provost of Science, and Curator of Paleontology at AMNH; **Steven Pinker**, Johnstone Family Professor in the Department of Psychology at Harvard University; and **Sherry Turkle**, Abby Rockefeller Mauzé Professor of the Social Studies of Science and Technology at MIT.

PREVIOUSLY LISTED

Limited space may still be available for these programs.

Environments and Adaptations: Surprising Ways of Living

Saturday, October 2 MC100204
10:30 a.m.–12:00 noon or 1:30–3:00 p.m.
Rose Center Classroom
$28
Ages 5–7

Deep-sea fish that light up at will? Frogs that develop on their mother's back? Learn how organisms fit into their environments in some surprising ways. With Museum educator Arthur Horan.

One with Nineveh

Thursday, October 7 ML100704
7:00–8:30 p.m.
Kaufmann Theater
$12 ($15 Non-Members)

Paul R. Ehrlich discusses how overpopulation and overconsumption are shaping humankind's future and how we can begin to create a better and more lasting world.

Bon Voyage! Fall Migration at Jones Beach

Saturday, October 16 MO101604
9:00 a.m.–5:00 p.m.
$75

Join Paul Sweet of the Department of Ornithology for this bird watch at Jones Beach. Bring your binoculars, field guide, and lunch; fee includes transportation by private coach.

Becoming a Tiger

Tuesday, October 19 ML101904
7:00–8:30 p.m.
Kaufmann Theater
$12 ($15 Non-Members)

How much of what animals know is instinct? Susan McCarthy presents fascinating examples of animal behavior in the laboratory, in controlled "natural" settings, and in the wild.

Scientifically Reading

Saturday, October 23 ML102304
5:00–6:00 p.m.
Linder Theater
Free ($12 Non-Members)

Christian Waters, Museum Tour Guide and publishing professional, presents a winter reading list on a range of natural history topics. One lucky participant will receive a set of the evening's recommendations.

Field to Lab: Central Park Accessioning Workshop

Saturday, October 23 MK102304
10:30 a.m.–1:30 p.m.
$50

Participants will collect and prepare specimens for the Ambrose Monell Collection for Molecular and Microbial Research. Insects from Central Park will be assigned a permanent position among the frozen tissue samples. Each participant will be recorded as the donor of their specimen in the facility's public online database.

A benefit event to support the American Museum of Natural History

Eleventh Annual Family Party

Anita & Steve Shevett

Wednesday, October 20, 2004
5:00 to 7:30 p.m.

A fun-filled adventure for children of all ages with dinosaur discoveries; live mammals, reptiles, and butterflies; science experiments; microscope mania; and much more!

Chairmen: Tory Burch, Kathryn Collins, Whitney Fairchild, Meera Gandhi, Kathryn Hearst, Liz Lange, Simone Mailman, Nicole Miller, Perri Peltz, Jane Rosenthal

For more information, please call 212-769-5166 or visit the Museum's Web site at www.amnh.org.

Dave Grover and the Big Bear Band perform at the Members' Family Holiday Party | D. Finnin/AMNH

Members' Family Holiday Party

Sunday, December 5, 2004
1:00–4:00 p.m.
MP120504

Join us in the Milstein Hall of Ocean Life for holiday crafts and live entertainment. Children will sing along with award-winning trio David Grover and the Big Bear Band as they perform holiday songs.

The event is free and open to Family and higher-level Members only. Members must register in advance by calling 212-769-5200.

Southwestern Research Station

Start in Tucson and head for somewhere between Mexico and New Mexico. If you have a nose for rare bats, beetles, and bobcats, you'll end up in the Sky Islands, home of the American Museum of Natural History's Southwestern Research Station.

This enchanting and little-known field station has attracted more than 5,000 scientists, naturalists, birders, and hikers in just the past five years, drawn to one of the most biologically rich environments in the United States. The Station, located at an elevation of 5,400 feet outside Portal, Arizona, can be found in the Chiricahua mountain range, part of the southwestern U.S.'s Madrean Archipelago/Sky Islands. Laced with creeks, semi-desert grasslands, oak woodlands, and lush-watered canyons, the area has something for everyone.

Dawn S. Wilson came last year from California State University, Chico, to be the new director at the station, where she will continue her research on creatures such as the desert box turtle and the twin-spotted rattlesnake. "I have one of the most wonderful jobs in the world and could not imagine a better place to reside, play, and work," she said.

Some people refer to the Sky Islands as the "biological Grand Canyon" of North America. This complex of about 27 mountain ranges, located at the crossroads of temperate and subtropical realms, affords unique ecosystems and habitats for a rich diversity of animals, many of which are low in numbers or even threatened such as the Chiricahua fox squirrel and Yaqui catfish.

About 265 bird species occur in the Sky Island region, including painted redstarts, Montezuma quail, elegant trogans, and others that thrive in the area's valleys and streambeds. And more than 75 reptile species, many of them found nowhere else in the world, inhabit the area and its surrounding deserts.

Homesteaded by Stephan Reed in 1879, the Station's original log cabin is thought by some to be the oldest cabin in southeastern Arizona. Some 50 years later, Mont Cazier, former Chairman of the Museum's Department of Insect and Spiders, eyed the Chiricahua Mountains as the ideal location for a field station. He contacted a well-to-do, beetle-fancying friend and convinced him that the site was of great biological importance.

That friend turned out to be New York financier and coleopterist David Rockefeller, who generously purchased the original Reed homestead for $50,000 and donated it to the Museum in 1955.

Today, the Station can house, in various dorms and cabins, up to 70 scientists at a time who visit from all over the world to gain access to the area's rich biodiversity as well as make use of the Station's Osborn Memorial Laboratories, library, insect and vertebrate collections, herbarium, photography lab, constant-temperature chambers, centrifuges, live animal holding facility, and outdoor aviary complexes. Scientists have

A hedgehog cactus on the grounds of the Station | Southwestern Research Station/AMNH

written and published more than 1,000 publications to date on work that they have conducted at the Station.

Want to learn how to distinguish Mexican leaf-cutters from harvester ants? Sign up for the Station's annual summer Ant Course, which has drawn hundreds of scientists and policymakers interested in preserving biodiversity in

Southwestern Research Station | Southwestern Research Station/AMNH

their homelands of Indonesia, Kenya, and Brazil, among other places. Along with similar courses on bats and bees, this course helps conservationists learn how to identify and name their local fauna. These taxonomy courses are held in the Station's "outdoor laboratory" and have long waiting lists.

Similar taxonomy workshops are given by the Museum's Center for Biodiversity and Conservation in collaboartion with the Division of Invertebrate Zoology, and help New York–area conservationists to better understand the ecology and conservation requirements for invertebrates of the region.

Dr. Wilson also has introduced a new course to teach conservation biologists how to use satellite imagery data to assess animal and plant populations. Participants learn how to download and display relevant remote sensing data, interpret the imagery, and use the data to support conservation goals.

Amateur naturalists and bird watchers are also welcome to enjoy comfortable lodgings and three meals daily and are accommodated when space is available. In March, April, and May and September and October, Museum **Members are entitled to a 10 percent discount on naturalist lodgings at the Southwestern Research Station.** For more information, visit: http://research.amnh.org/swrs/ and click on "Lodging."

A Celebration of Food and Biodiversity

Living with Nature: Healthy Eating for You and the Planet

Tuesday, October 12
Resource Fair: 6:00 p.m., Hall of Northwest Coast Indians
Panel Discussion: 7:30 p.m., LeFrak Theater
Free; registration is recommended. Please visit http://cbc.amnh.org/ or call 212-496-3423.

Shoppers at the Union Square Greenmarket | Davy Hughes

People from all walks of life are beginning to ask questions about where their food comes from, what resources went into its production, how it affects their well-being and that of their communities, and its vital link to biodiversity. On October 12, the Center for Biodiversity and Conservation continues its Living with Nature series with a resource fair and panel discussion exploring food as a celebration of nature, a link to good health, a delicious indulgence, and a tool for conservation.

Heirloom tomatoes on sale at the Union Square Greenmarket | Mitzi Morris

At the resource fair, you will have the opportunity to talk with local farmers about how their produce is grown and to learn about the rich variety of crops that can be found virtually at our doorstep. For example, did you know that over 100 different varieties of apples are grown in New York State alone? By diversifying our diet to include different strains of vegetables, fruits, and grains, we can support biodiversity. Industrial monocultures—large tracts of a single crop or a single variety of produce—sustain fewer species of pollinators, soil organisms, and predators, and are also often reliant on massive amounts of pesticide and fertilizer. Our increasing consumption of foods grown in this way has contributed to a loss of genetic diversity in agriculture, which can lead to diminished resistance to pests and diseases, threatening our future food supply.

Farms that utilize more traditional, preindustrial methods incorporate a variety of crops or different strains, use fewer chemicals, and sometimes cultivate both plants and animals. In turn, these farms support greater diversity of insects, soil organisms, birds, and mammals. Increasingly, it is possible for city dwellers to purchase fresh produce directly from such farms—a good way to find a link to them is to visit your local farmer's market and talk to farmers that sell there about the way in which their crops are raised. You can also talk to your grocer about their suppliers, and their farming methods and philosophies. Another increasingly popular trend is community-supported agriculture, or CSA, a system where members contribute to a farm's planting costs, and then receive weekly shares of the farm's seasonally available produce. CSAs are an ideal means of ensuring that farmers produce the right amount of food for the people they supply. Because their market is arranged in advance, CSA farmers can plan their preparations for the next year accordingly. The system gives urban and suburban dwellers a direct link to food sources and contributes to the economies of rural communities, as well as the protection of open space. In addition, buying produce grown on nearby farms avoids the transportation costs and associated high energy use that comes with transporting food over long distances.

These issues and more will be addressed in the panel discussion on Tuesday, October 12, which will feature Dan Barber, chef/owner of Blue Hill at Stone Barns and Creative Director of Stone Barns Center for Food and Agriculture, a working farm and education center; Joan Dye Gussow, Professor Emeritus of Nutrition and Education at Teachers College, Columbia University, and author of *This Organic Life: Confessions of a Suburban Homesteader*; Mollie Katzen, author of the classic *Moosewood Cookbook* and others; and Tod Murphy, founder of the Farmers Diner in Barre, Vermont, which relies almost exclusively on locally produced food. Moderating will be award-winning filmmaker and novelist Ruth Ozeki, author of *My Year of Meats* and *All Over Creation*.

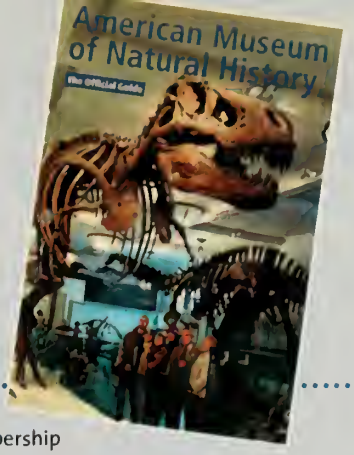
The Living with Nature *program series and publications are underwritten by an anonymous Museum Trustee.*

Different kinds of fresh carrots for sale at the Union Square Greenmarket | Davy Hughes

Give a Gift for All Seasons: AMNH Membership

Your friends and relatives can enjoy all the benefits of Membership, including complimentary Museum general admission and special exhibition tickets, a year's subscription to *Natural History* magazine and *Rotunda*, invitations to Members' previews, and discounts in Museum shops and restaurants. Choose the Membership level and we'll do the rest. As a special holiday bonus, we'll include in the gift the newly updated *American Museum of Natural History: The Official Guide* (a $7.95 value).

Special offer expires December 31, 2004. Not valid for Members renewing their own Memberships.



1. Please send a one-year Membership at the category indicated to the person below:

❑ Individual $55 ❑ Dual $75 ❑ Family $100 ❑ Contributor $175

Recipient's Name _____

Street _____

City _____ State _____ Zip Code _____

2. Please send a one-year Membership at the category indicated to the person below:

❑ Individual $55 ❑ Dual $75 ❑ Family $100 ❑ Contributor $175

Recipient's Name _____

Street _____

City _____ State _____ Zip Code _____

Your Name _____

Street _____ City _____ State _____ Zip Code _____

❑ Enclosed is my check for $ _____ OR

❑ Please charge my: ❑ Visa ❑ MasterCard ❑ American Express

Card Number _____ Exp. Date _____ Signature _____

Special Offer for Members Only!

MUSEUM HOLIDAY COLLECTION

Beaded Ornament
With velvet backing.

Holiday Apatosaurus
Inside Greeting: May your holidays bring you light and cheer

AMNH in the Snow
Inside Greeting: Season's Greetings

Frog Santa
Inside Greeting: Hoppy Holidays!

Origami Peace Crane
Inside Greeting: Peace on Earth

Exclusively ours, the 2004 AMNH holiday cards and hand beaded ornament have arrived! Place your holiday order with our personal shopper before October 15 and receive an additional 15% OFF (good for phone orders only). To place your order, call 212.769.5792.*

*Orders will ship by October 31.

American Museum of Natural History

WWW.AMNH.ORG

General Information

HOURS

Museum: Daily, 10:00 a.m.–5:45 p.m.
The Rose Center remains open until 8:45 p.m. on Friday. The Museum is closed Thanksgiving and Christmas.
Space Show: Every half hour, Sunday–Thursday and Saturday, 10:30 a.m.–4:30 p.m., Friday, 10:30 a.m.–7:00 p.m.
Research Library: Tuesday–Thursday, 2:00–5:30 p.m.
Hours are subject to change.

ENTRANCES

During Museum hours, visitors may enter through the subway (lower level), Central Park West at 79th Street (second floor), and the Rose Center/81st Street entrances. The 77th Street and Weston Pavilion/Columbus Avenue entrances are closed until further notice.

TRANSPORTATION AND PARKING

Subway: B (weekdays) or C to 81st Street; 1 or 9 to 79th Street
Bus: M7, M10, M11, or M104 to 79th Street; M79 to Central Park West
Parking Garage: Open daily, 8:00 a.m.–11:00 p.m.; enter from West 81st Street. Members receive a discounted rate of $10 if entering after 4:00 p.m. To receive this rate, you must have your parking ticket validated at the Security Desk (first floor, Central Park West entrance). For more information, call 212-313-7278.

FOOD SERVICE

Museum **Food Court:** Daily, 11:00 a.m.–4:45 p.m. (*lower level*)
•**Café on 4:** Saturday and Sunday, 11:00 a.m.–4:45 p.m (*fourth floor*)
•**Café 77:** Saturday and Sunday, 11:00 a.m.–4:45 p.m (*first floor*)
Hours are subject to change.

MUSEUM SHOP

The following Museum Shops are open during regular Museum hours:
Main Shop (*first and second floors*)
Dinostore and More (*fourth floor*)
Planetarium Shop (*Rose Center, lower level*)
Satellite Shop (*Rose Center, first floor*)
Frogs Shop (*first floor*)
Butterfly Shop (*second floor*)
Totems to Turquoise Shop (*third floor*)
Opens October 30

PHONE NUMBERS

Museum Information	212-769-5100
Membership Office	212-769-5606
Planetarium Information	212-769-5900
Member Birthday Parties	212-769-5606
Education	212-769-5310
Planned Giving Office	212-769-5119
Patrons Circle	212-769-5153
Discovery Tours	212-769-5700
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	646-356-6500
Web Site	www.amnh.org

AMNH eNotes delivers the latest information on Museum programs and events to you via email. Visit www.amnh.org to sign up today!

AMERICAN MUSEUM OF NATURAL HISTORY

Rotunda.
American Museum of Natural History
Received on: 10-04-04

You are cord
the M

TOTEMS TO TURQUOISE

Native North American Jewelry Arts of the Northwest and Southwest

on Friday, October 29, from 4:00 to 8:30 p.m.

Please use the Museum's main entrance (the Rotunda) on Central Park West.

Kindly RSVP to the Membership Office at 212-769-5606.

Membership Department
Central Park West at 79th Street
New York, New York 10024-5192
www.amnh.org

rotunda

OL. 29 NO. 6 DECEMBER 2004

MEMBERS' NEWSLETTER

QH70
.U52
N5
v. 29
no. 6
Dec 2004

AMERICAN MUSEUM OF NATURAL HISTORY

Museum Notes

Left: Woman in the Moon *pendant. Jim Hart (Haida). 2003. Private collection.* | Photo by Kiyoshi Togashi; *right:* Universe within the Bear *pendant. Jesse Monongya (Navajo). 1991. Private collection* | Photo by Kiyoshi Togashi

CURRENTLY ON VIEW

Totems to Turquoise: Native North American Jewelry Arts of the Northwest and Southwest

Through July 10, 2005
Gallery 3

This groundbreaking exhibition celebrates the beauty, power, and symbolism of the magnificent tradition of Native American arts, examining techniques, materials, and styles that have evolved over the past century as Native American jewelers have adapted to technical, societal, and commercial changes, transforming their traditional craft into a vital form of cultural and artistic expression.

Frogs: A Chorus of Colors

Through January 9, 2005
Gallery 77

Twenty-four species of frogs, from the tiny golden mantella frog (less than an inch long) to the enormous African bullfrog (up to eight inches in diameter) live in re-created habitats, complete with rock ledges, live plants, and waterfalls.

Frogs: A Chorus of Colors *is presented with appreciation to Clyde Peeling's Reptiland.*

Fall Colors across North America

Through March 13, 2005
IMAX® Corridor

The fiery colors of autumn come to life in these images by Anthony E. Cook.

Art in Nature: The Photographs of John Daido Loori

Through January 9, 2005
Akeley Gallery

Striking abstract photographs by Zen master John Daido Loori explore notions of scale in the dramatic land- and seascape of Point Lobos State Reserve in California.

This exhibition is made possible by the generosity of the Arthur Ross Foundation.

Vital Variety: A Visual Celebration of Invertebrate Biodiversity

Through Spring 2005
IMAX® Gallery

Beautiful close-up photographs highlight the importance of the immense diversity of invertebrates and their critical role in the survival of humankind.

Cover: Howard Rosenbaum, Yvette Razafindrakoto, and members of the team working with a group of whales in Antongil Bay, Madagascar | Julie Larsen Maher

The Butterfly Conservatory: Tropical Butterflies Alive in Winter

October 9, 2004–May 30, 2005
Whitney Memorial Hall of Oceanic Birds

Opening for its seventh year, this popular exhibition once again includes more than 500 live, free-flying tropical butterflies. Visitors can mingle with the butterflies and learn about the butterfly life cycle, defense mechanisms, evolution, and conservation.

Admission is by timed entry only. Tickets are $9.50 for Members and $5.50 for Members' children.

PLANETARIUM SHOWS

SonicVision

Fridays and Saturdays, 7:30, 8:30, and 9:30 p.m.

Get ready for the mind-warping experience of your life! Hypnotic visuals and rhythms surround viewers in *SonicVision*, a trip out of this world and into the minds of the universe's most creative digital animators, set to a soundtrack of today's coolest music.

Presented in association with MTV2 and in collaboration with renowned artist Moby.

SonicVision *is made possible by generous sponsorship and technology support from Sun Microsystems, Inc.*

The Search for Life: Are We Alone?

This Space Show will whisk you on an incredible journey from the lightless depths of Earth's oceans to newly discovered planets on a quest for worlds that might support life.

The Search for Life: Are We Alone? *is made possible through the generous support of Swiss Re.*

Passport to the Universe

The original Hayden Planetarium Space Show, narrated by Tom Hanks, is back by popular demand!

The Space Shows were developed by the American Museum of Natural History in collaboration with the National Aeronautics and Space Administration (NASA). Written by Ann Druyan and Steve Soter. Music by Stephen Endelman.

J. Cracraft/AMNH

IMAX® MOVIES

Samuel J. and Ethel LeFrak Theater
Call 212-769-5100 for showtimes.

Lewis & Clark: Great Journey West

Trace the historic journey of Meriwether Lewis and William Clark through the uncharted West and experience the dramatic lands they traversed.

Vikings: Journey to New Worlds

Discover the historical and cultural impact and scientific and technological achievements of this well-known but little understood society of seafaring explorers.

Bugs!

This live-action rain forest adventure follows the dramatic lives of a praying mantis and a graceful butterfly and ends with their inevitable encounter.

AND DON'T MISS...

Members' Family Holiday Party

Sunday, December 5 MP120504
1:00–4:00 p.m.

Join us in the Milstein Hall of Ocean Life for holiday crafts and live entertainment. Children will sing along with award-winning trio David Grover and the Big Bear Band as they perform holiday songs.

The event is free and open to Family and higher-level Members only. Members must register in advance by calling 212-769-5200.

AMNH Birthday Parties

Looking for a fun, educational birthday party for your child? Throw your party at the American Museum of Natural History. There are five hands-on themes to choose from: **Dinosaur Discoveries, Safari Adventure, Underwater Treasures, Global Mysteries,** and **Cosmic Blast-off** parties. The birthday child is the scientist in charge of his or her own expedition.

Parties are tailored for children ages 4 and up and are available seven days a week as a benefit to Contributor and higher-level Members only. For more information and to request a date, see our online brochure at www.partymakers.com or call Linda Kaye's Partymakers at 212-288-7112.

Warm Up with Restaurant Associates

As the weather turns chilly, Restaurant Associates and the Museum will open the American Soup Café, offering hearty soups, chowders, and chili. Located on the lower level between the subway entrance and the Food Court, the Café will be open daily from 12:00 noon until 4:45 p.m. Hungry visitors will also find sandwiches, salads, a variety of beverages, and desserts and snacks. As always, Members receive a 15% discount in the Museum's dining facilities—simply present your Membership card at the start of your transaction.

rotunda

ISSN 0194-6110
USPS Permit #472-650
Vol. 29, No. 6, December 2004

Lewis W. Bernard, *Chairman*
Ellen V. Futter, *President*
Lynn DeBow, *Senior Vice President for Development and Membership*
Rosemary Caulk, *Director of Membership*

Rotunda is published bimonthly, except for a combined issue in July/August/September and a single issue in December, by the Membership Office of the American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192. Phone: 212-769-5606. Web address: www.amnh.org. Museum membership of $55 per year and up includes a subscription to *Rotunda*. ©2004 American Museum of Natural History. Periodical postage paid at New York, NY 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 USPS 472-650). Date of filing: October 1, 2004. Frequency of issue: Bimonthly except for a combined issue in July/August/September and a single issue in December. Number of issues published annually: 6. Annual subscription price: Museum membership of $55 a year or higher. 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: Membership Office, American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192. Editor: Jaime Sperling. Owner: American Museum of Natural History. Known bondholders, mortgage and other security holders: None. The purpose, function, and non-profit 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 preceding 12 months, and (B) signifies average number of copies of single issue published nearest to filing date. Total number of copies (A) 61,000 (B) 62,000. Paid circulation through Dealers and Carriers, Street Vendors, Counter Sales, and Other Non-USPS Paid Distribution (A) and (B): None. Mail subscription: (A) 57,278 (B) 57,795. Free distribution by mail: (A) 304 (B) 466. Free distribution outside of mail: (A) 2,894 (B) 3,460. Total distribution: (A) 60,476 (B) 61,721. Copies not distributed: (A) 524 (B) 279. Return from news agents: None. Percent Paid and or Requested Circulation: 93.6%. I certify that the statements made by me above are correct and complete.
(signed) Rosemary Caulk

Printed by Brown Printing, E. Greenville, Pennsylvania.

2004 Scientific Expeditions

Dr. Norell in Liaoning Province | M. Ellison/AMNH

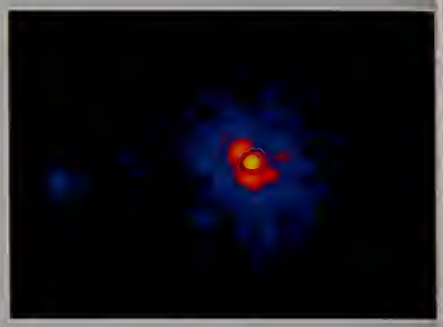
Scientists at the American Museum of Natural History set out on more than one hundred expeditions all over the world every year. These journeys of body and mind are an intrinsic and dynamic part of the Museum's effort to deepen our understanding of the world, to solve the mysteries of the complex and intricate interrelationships linking all life, past and present, and to protect and conserve it for the future. Here are a few of the many journeys of exploration undertaken by Museum scientists during this past year.

In the Division of Physical Sciences, Dr. Michael Shara, Curator and Curator-in-Charge, and Ben Oppenheimer, Assistant Curator, both of the Department of Astrophysics, with the generous support of Hilary and Ethyl Lipsitz, Charlene and Anthony Marshall, and Cordelia Corp., observed a dozen nearby, Sun-like stars from atop Mount Haleakala on Maui. Using a coronograph, an instrument designed to blot out the blinding rays of such stars so that their orbiting planets can be directly imaged, Drs. Shara and Oppenheimer collected a spectacular dataset of these Jupiter-sized planets that are as near to their stars as Earth is to the Sun.

Dr. Edmond Mathez, Curator of Earth and Planetary Sciences in the Division of Physical Sciences, traveled to the geological wonder of the Bushveld Complex of South Africa to continue his studies of how very large bodies of partially molten rocks solidify, research that bears on the origin of platinum deposits. Dr. Mathez brought back more than five hundred kilograms of valuable drill core and samples he collected underground from this massive body of rock that cooled from a molten intrusion two billion years ago.

To study the history of life on Earth, scientists in the Division of Paleontology journey to remote areas. Dr. Mark Norell, Division Chair and Curator of Paleontology, and Mick Ellison, Senior Principal Artist, with the generous support of the Jaffe Family Foundation, traveled to Liaoning Province in northeastern China to continue their work on specimens of feathered dinosaurs at the site where they were originally excavated. Later in the year, Dr. Michael Novacek, Senior Vice President, Provost, and Curator, Dr. Norell, and other Museum staff returned to the Gobi Desert of Mongolia for the 15th installment of the joint AMNH/Mongolian Academy of Sciences Gobi Expeditions. Important collections were made of early Cretaceous dinosaurs and mammals.

Dr. Mathez in South Africa | AMNH



A very close binary star imaged with the AMNH coronagraph; the star on the left is 3,000 times fainter than its bright companion and is normally lost in its glare. | AMNH

Dr. Jin Meng, Associate Curator of Paleontology, spent much of the summer in China discovering new fossil sites and new fossils in the Irdin Manha beds, a site made famous on previous Museum expeditions in the early 20th century. Dr. Meng and his team screenwashed three tons of sediments for micromammals from the Paleocene/Eocene boundary beds in the Erlian Basin in Inner Mongolia and discovered fossils of small rodents.

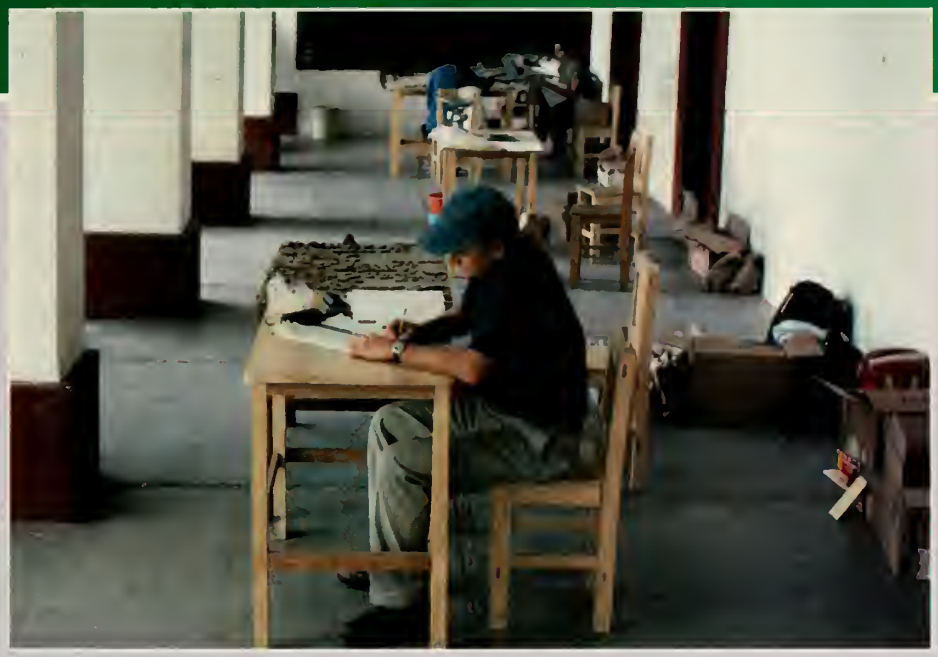
Dr. Lorenzo Prendini, Assistant Curator in the Division of Invertebrate Zoology, discovered a new species of scorpion in the rugged sanctuary of northwestern Namibia's Kaokoveld, returning in February from the Constantine S. Niarchos Expedition with this addition to the Museum collection. The scorpion, in the genus *Opistophthalmus*, will take its species name from the word for scorpion in the language of the Ovahimba tribe, one of the last nomadic tribes remaining in Africa.

Dr. Paula Mikkelsen, Assistant Curator in the Division of Invertebrate Zoology, explored habitats of Shark Bay, the westernmost point of the Australian continent, and an area of major zoological importance in the world. Dr. Mikkelsen and colleagues from the Natural History Museum, London, live-collected needed bivalve taxa. A dozen species of these molluscs were found in shallow, sandy habitats and fixed for a variety of procedures, including histology. The Western Australian Museum assisted in permits, preservatives, and shipping specimens.

Over the summer, members of the Division of Anthropology continued their research in an archaeological wonderland, the Valley of Oaxaca, Mexico, under the supervision of Dr. Charles Spencer, Division Chair and Curator. Analyses of excavated ceramics, lithics, and faunal remains were carried out in the field laboratory. A digital imaging team photographed hundreds of important objects.

Opistophthalmus *n. sp.* | L. Prendini/AMNH

Another Museum anthropologist, Dr. Laurel Kendall, Curator of Asian Ethnographic Collections, was in Manchuria making preliminary explorations for possible future research. As an anthropologist focusing on Korea, Dr. Kendall was investigating how a site sacred to Koreans, Manchus, and Mongols had been given over to commercial tourism, and how tourist sites there are presented to a nonwestern audience, in this instance, South Korean.



Dr. Spencer in his field laboratory in Oaxaca, Mexico | AMNH

With its vision for the future of our planet, the Museum's Center for Biodiversity and Conservation (CBC) sends its staff to areas of the world where biodiversity is both rich and of great conservation concern. As part of a John D. and Catherine T. MacArthur Foundation–funded initiative to improve biodiversity conservation planning in threatened landscapes of the Central Truong Son Mountain Range of Vietnam, CBC staff completed their first field expedition this past April. They collected data on the existing ground cover, which is now being used to verify the map created from satellite images in the lab.

In May, CBC Outreach Program Manager Meg Domroese visited Bolivia where she worked on the Biodiversity Conservation through Integrated Management project. Ms. Domroese also met with Bolivian photographers and organizations to collect photos and information for an exhibition on Bolivia's biodiversity, opening at the Museum in January 2005.

In July, the Cetacean Research and Conservation Program, a collaborative program implemented by the CBC and the Wildlife Conservation Society, initiated its ninth field season in Antongil Bay, Madagascar—the best-documented breeding and calving ground for humpback whales in the southwestern Indian Ocean. The data being collected by CRCP in Madagascar and other parts of the world is a vital step toward determining the status of endangered whale stocks and dolphin populations.

These and many other expeditions continue the Museum's longstanding tradition of exploration in the field, begun in 1869 with the Museum's founding. The resulting discoveries and research yield the knowledge and enlightenment that has kept the American Museum of Natural History at the forefront of science and makes it a leader in 21st-century science.

The Division of Anthropology's digital imaging team at work | AMNH

Members' Programs

Programs are available to Members only, unless a non-Member's price is given.

LECTURES

Big Bang

Tuesday, January 18 ML011805
7:00–8:30 p.m.
Kaufmann Theater
$12 ($15 Non-Members)

Albert Einstein once said, "The most incomprehensible thing about the universe is that it is comprehensible." Science writer Simon Singh believes that everyone—not only geniuses like Einstein—can grasp the physics that underlies the universe. In his latest book, *Big Bang: The Origin of the Universe*, Singh explains the Big Bang theory and why cosmologists believe that it is an accurate description of the origin of the universe. Singh also shares stories of the scientists who fought to bring the idea of a changing universe into mainstream science.

Singh received a Ph.D. in physics from Cambridge University. A former BBC producer, he directed the Emmy-nominated *NOVA* documentary on Fermat's Last Theorem, *The Proof*, and wrote the bestselling *Fermat's Enigma*. He lives in London and teaches and lectures widely.

The Sky Is Not the Limit

Thursday, February 17 ML021705
7:00–8:30 p.m.
Kaufmann Theater
$12 ($15 Non-Members)

Neil deGrasse Tyson, Frederick P. Rose Director of the Hayden Planetarium, wrote of his lifelong fascination with the night sky in his memoir, *The Sky Is Not the Limit: Adventures of an Urban Astrophysicist*. In this talk, Tyson shares his memories of how it all began on the roof of his Bronx apartment building and ultimately led to the leadership of the world-renowned Hayden Planetarium. Tyson also shares insights on scientific literacy, science and society, the nature of the universe, and more.

Courtesy Simon Singh

Tyson is the host of the recent PBS miniseries, *NOVA: Origins*. His monthly column, "Universe," appears in *Natural History* magazine and he is the author of *Merlin's Tour of the Universe* and *Just Visiting This Planet*, among other works.

From A to Zeiss

Wednesday, February 23 ML022304
6:30–8:00 p.m.
Hayden Planetarium Space Theater
$15 ($18 Non-Members)

The Hayden Planetarium's Zeiss Mark IX Star Projector is the source of the magnificent starry sky depicted in the Space Shows *Passport to the Universe* and *The Search for Life: Are We Alone?* In this special lecture, Matthew Dougherty, Zeiss Programmer and Hayden Planetarium Instructor, offers an up-close look at how this custom-designed instrument works. Then, view the current evening sky, witness a total solar eclipse, and travel back in time two thousand years to learn why your zodiac sign is not what you think it is.

WALKING TOURS

Geology of North America

Tuesday, January 25 MT012505
5:30–7:00 p.m.

Geology of Africa

Tuesday, February 1 MT020105
5:30–7:00 p.m.
$20 each ($35 for both)

The Museum's dioramas are famous for their lifelike representations of animals in their natural settings and take visitors one step closer to the real-life locations depicted. Join Sidney Horenstein for a new look at the dioramas: these two tours will have you closely examining the foreground scenery and background paintings and learning about the geological diversity of the two continents. Whether you come to one or both, you will gain a greater appreciation of the scientific and artistic effort that went into creating them.

From the American Museum Congo Expedition, 1901–1915 | AMNH

BEHIND-THE-SCENES TOUR

Digital Library

Thursday, January 27 MB012705
6:30–7:30 p.m. or 7:30–8:30 p.m.
$30

Members are invited for a behind-the-scenes look at the Special Collections Unit of the Museum's Research Library with Anthony Troncale,

Gorillas diorama in the Akeley Hall of African Mammals | D. Finnin and J. Beckett/AMNH

Assistant Director for Digital Collections, and Tom Baione, Assistant Director for Client Services. See how the Library is using new technology to enhance researchers' access to the Museum's scientific publications, and how the most advanced scanners and cameras capture photographs and rare and historic materials that would otherwise be off-limits. Visit specially designed storage areas and learn about the Digital Resources Management System. Members will also enjoy a personal tour of the American Museum Congo Expedition Web site. A free pair of 3-D glasses will be given to every tour member for viewing images of the Congo at home in stereoscopic vision.

CHILDREN'S WORKSHOPS

Environments and Adaptations: Teeny Tiny Universe

Sunday, January 9 MC010905
10:30 a.m.–12:00 p.m. or 1:30–3:00 p.m.
Rose Center Classroom
$28 (Ages 5–7)

In this drop-off workshop, young explorers will examine the worlds of some of Earth's tiniest organisms. Educator Arthur Horan leads the group through various ecosystems in the Museum halls, stopping at the Dzanga-Sangha rain forest, the forests of North America, the ocean depths, and other habitats. Children will search for the smallest creatures in the dioramas, and record their findings in expedition journals. Back in the classroom, children will make a craft that incorporates what they have learned.

Understanding the Night Sky

Saturday, January 22 MC012205
11:00 a.m.–12:30 p.m. or 2:00–3:30 p.m.
Fourth-Floor Rose Center Classroom
$28 (Ages 9 and up)

Have you ever gazed up at the evening sky on a clear night and wondered what stars you were looking at? Or where the North Star is and why it is so important? Well, the sky is waiting... Join educator Stephen Brodbar in an exploration of the nighttime sky and learn how to distinguish stars from planets, identify the brightest stars by name, and locate a few of the most prominent groupings of stars in the sky. This will be followed by a brief tour around the heavens, season by season, with an introduction to the use of a star map.

FREE HALL TOUR

Chinese Zodiac: Legends, Myths, and Facts

Saturday, January 15 MT011505
Saturday, January 22 MT012205
4:00–5:30 p.m.
Free (Registration required)

The Chinese zodiac dates back thousands of years and differs dramatically from the commonly used Western zodiac. Each animal in the Chinese zodiac represents a full year and has a special meaning and message. Travel through the halls with Museum Tour Guide Larry Bassett to visit each of the animals in the Chinese zodiac. Learn about their meanings, the legends surrounding them, and explore what they mean to you.

PREVIOUSLY LISTED

Limited space may still be available for these programs.

History of Astronomy

Saturday, December 11 ML121104
1:00–2:30 p.m.
Linder Theater
Free (Registration required)

Step into the curious minds of astronomers like Ptolemy, Hipparchus, and Copernicus and see how their discoveries contributed to the modern scientific world. With Museum Tour Guide Bill Hinchman.

Plankton Chowder

Sunday, December 12 MC121204
10:30 a.m.–12:00 p.m. or 1:30–3:00 p.m.
Rose Center Classroom
$40/pair (Ages 5–7, each child with one adult)

The ocean is a soup called plankton chowder! Museum educator Amy O'Donnell leads young Members on a tour to discover plankton in the Milstein Hall of Ocean Life and to learn how they live. The tour is followed by a drawing session.

The Life of the Forest Floor diorama in the Hall of North American Forests | J. Beckett and C. Chesek/AMNH

Bequest Honors Museum Legend and Helps Future Anthropologists

The late Martha Yaghjian honored Margaret Mead's work and activism through a bequest that will support internships in the Division of Anthropology. | Courtesy of Natalie Zakarian

"I have spent most of my life studying the lives of other peoples—faraway peoples—so that Americans might better understand themselves," Margaret Mead, perhaps the Museum's most famous anthropologist, once said. These words inspired generations of anthropology students to follow in her footsteps at the American Museum of Natural History, where Dr. Mead was Curator of Ethnology from 1926 until her death in 1978. Dr. Mead's efforts to increase cultural understanding also inspired the late Martha Boyajian Yaghjian, who honored her work through a bequest that will support anthropology internships at the Museum.

Raised in Melrose, Massachusetts, Martha Yaghjian was the daughter of Armenian parents who were forced by cultural strife to leave their home in eastern Anatolia. As part of an immigrant family in America, Ms. Yaghjian navigated the challenges of balancing cultural assimilation with her own cultural identity and was encouraged by Dr. Mead's work to celebrate human diversity.

According to Ms. Yaghjian's niece, Natalie Zakarian, her aunt's 25-year career with the Boston investment firm Kidder Peabody enabled her to build a modest financial portfolio. When it came time to create her will, since she had admired Margaret Mead, Ms. Yaghjian decided to make philanthropy a priority and to honor Dr. Mead's work by including a bequest to the Museum. Following Ms. Yaghjian's death at the age of 93, her niece contacted Charles Spencer, Chairman of the Division of Anthropology, to inform him that her aunt's "modest" investments had grown over time to a considerable bequest that would establish The George M. and Martha Yaghjian Endowment Fund for Anthropology.

For decades to come, income from Ms. Yaghjian's bequest will provide students with anthropology internships in research, collections management, and conservation here at the Museum. Through this gift, Ms. Yaghjian has left a wonderful legacy that will continue to commemorate Margaret Mead's contributions to anthropology by providing opportunities for students to be a part of one of the country's oldest and most highly renowned anthropology programs, here at the American Museum of Natural History.

The Museum is very pleased to recognize Ms. Yaghjian's great generosity, knowing that her bequest will play an important part in the Museum's future and will further its tradition of fostering scientific research. For more information on ways that you can support the Museum's work through a bequest, gift annuity, or other life-income gifts, or on how to designate the Museum as a beneficiary of a retirement plan or life insurance policy, please call the Planned Giving Office at 212-769-5157 or toll-free at 800-453-5734.

Dr. Margaret Mead, Pere School (Manus, Admiralty Islands, 1965) | AMNH

TOTEMS TO TURQUOISE

Native North American Jewelry Arts of the Northwest and Southwest

Moon Pendant

Hand painted wood and abalone shell

Kevin Cranmer, artist

THE SHOP

Circle of Life

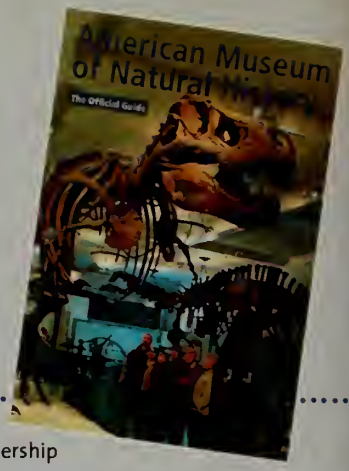
Pin/pendant inlaid with Cripple Creek turquoise and red coral

Mary Lovato, artist

In association with the exhibition, we are pleased to offer a collection of one-of-a-kind jewelry pieces and art objects, created by today's most distinguished Native North American artisans. Prices start at $15. Visit Totems to Turquoise: The Shop or contact our Personal Shopper at 1-800-671-7035 or shopper@amnh.org.

AMERICAN MUSEUM OF NATURAL HISTORY

Give a Gift for All Seasons: AMNH Membership



Your friends and relatives can enjoy all the benefits of Membership, including complimentary Museum general admission and special exhibition tickets, a year's subscription to *Natural History* magazine and *Rotunda*, invitations to Members' previews, and discounts in Museum shops and restaurants. Choose the Membership level and we'll do the rest. As a special holiday bonus, we'll include in the gift the newly updated *American Museum of Natural History: The Official Guide* (a $7.95 value).

Special offer expires December 31, 2004. Not valid for Members renewing their own Memberships.

1. Please send a one-year Membership at the category indicated to the person below:

❑ Individual $55 ❑ Dual $75 ❑ Family $100 ❑ Contributor $175

Recipient's Name _____

Street _____

City _____ State _____ Zip Code _____

2. Please send a one-year Membership at the category indicated to the person below:

❑ Individual $55 ❑ Dual $75 ❑ Family $100 ❑ Contributor $175

Recipient's Name _____

Street _____

City _____ State _____ Zip Code _____

Your Name _____

Street _____ City _____ State _____ Zip Code _____

❑ Enclosed is my check for $ _____ **OR**

❑ Please charge my: ❑ Visa ❑ MasterCard ❑ American Express

Card Number _____ Exp. Date _____ Signature _____

Lavishly Illustrated Book Accompanies Exhibition

TOTEMS TO TURQUOISE
Native North American Jewelry Arts of the Northwest and Southwest

Kari Chalker, General Editor
Lois Sherr Dubin and Peter M. Whiteley, Contributing Editors

Published by Abrams

Evocative and finely crafted, the jewelry made by Native North American artists reveals much about Native American culture. This striking jewelry and the methods employed in its creation tell of family and tribal tradition, deeply held spiritual beliefs, and an enduring relationship with the land. In *Totems to Turquoise: Native North American Jewelry Arts of the Northwest and Southwest*, published to coincide with the opening of the exhibition at the American Museum of Natural History this fall, Native artists of the Northwest and Southwest discuss their art and inspiration alongside images of their exquisite pieces and insightful essays.

The lands of the Northwest and Southwest are vastly different, yet after a unique cultural exchange program that eventually led to the production of this lavishly illustrated book and spectacular exhibition, the artists of each area discovered much in common: all seek to preserve the traditions of their ancestors through the production of jewelry. This 224-page book, with 185 illustrations (150 in full color), celebrates the relationship between the beauty of art and the sanctity of tradition.

Lois Sherr Dubin is a noted authority on beads and jewelry and the author of two acclaimed books, considered classics in the field: *History of Beads* and *North American Indian Jewelry and Adornment*. Peter M. Whiteley is Curator of North American Ethnology at the American Museum of Natural History. Kari Chalker is an anthropological writer, researcher, and editor. She was formerly Assistant Director of Cultural Explorations at the Crow Canyon Archaeological Center in Cortez, Colorado.

Available in Totems to Turquoise: The Shop for $45.00. Members' discount applies.

HOLIDAY GIFT BASKETS!

There's lots to learn and do in these exciting themed gift baskets for the holidays, perfect for your 4- to 8-year-old! Each basket includes a FREE gift tin (valued at $12), plus free shipping! Your choice, $50 each. Personalized baskets also available upon request. Orders must be placed by December 10. Please allow 7–10 days for delivery. For more information or to place orders, call:

1-800-671-7035

AMERICAN MUSEUM OF NATURAL HISTORY

WWW.AMNH.ORG

Rotunda.
American Museum of Natural History
Received on: 11-29-04

General Information

HOURS
Museum: Daily, 10:00 a.m.–5:45 p.m.
The Rose Center remains open until 8:45 p.m. on Friday. The Museum is closed Thanksgiving and Christmas.
Space Show: Every half hour, Sunday–Thursday and Saturday, 10:30 a.m.–4:30 p.m., Friday, 10:30 a.m.–7:00 p.m.
Research Library: Tuesday–Thursday, 2:00–5:30 p.m.
Hours are subject to change.

ENTRANCES
During Museum hours, visitors may enter through the subway (lower level), Central Park West at 79th Street (second floor), and the Rose Center/81st Street entrances. The 77th Street and Weston Pavilion/Columbus Avenue entrances are closed until further notice.

TRANSPORTATION AND PARKING
Subway: B (weekdays) or C to 81st Street; 1 or 9 to 79th Street
Bus: M7, M10, M11, or M104 to 79th Street; M79 to Central Park West
Parking Garage: Open daily, 8:00 a.m.–11:00 p.m.; enter from West 81st Street. Members receive a discounted rate of $10 if entering after 4:00 p.m. To receive this rate, you must have your parking ticket validated at the Security Desk (first floor, Central Park West entrance). For more information, call 212-313-7278.

FOOD SERVICE
Museum Food Court: Daily, 11:00 a.m.–4:45 p.m. (*lower level*)
Northwest/Southwest Café on 4: Saturday and Sunday, 11:00 a.m.–4:45 p.m (*fourth floor*)
Café 77: Saturday and Sunday, 11:00 a.m.–4:45 p.m (*first floor*)
American Soup Café : Daily, 12:00 noon–4:45 p.m. (*lower level*)
Hours are subject to change.

MUSEUM SHOP
The following Museum Shops are open during regular Museum hours:
Main Shop (*first and second floors*)
Dinostore and More (*fourth floor*)
Planetarium Shop (*Rose Center, lower level*)
Satellite Shop (*Rose Center, first floor*)
Frogs Shop (*first floor*)
Butterfly Shop (*second floor*)
Totems to Turquoise: The Shop (*third floor*)

PHONE NUMBERS

Museum Information	212-769-5100
Membership Office	212-769-5606
Planetarium Information	212-769-5900
Member Birthday Parties	212-769-5606
Education	212-769-5310
Planned Giving Office	212-769-5119
Patrons Circle	212-769-5153
Discovery Tours	212-769-5700
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	646-356-6500
Web Site	www.amnh.org

AMNH eNotes delivers the latest information on Museum programs and events to you via email. Visit www.amnh.org to sign up today!

AMERICAN MUSEUM OF NATURAL HISTORY

Walk on the Wild Side

***Exercise** your body,*
***Educate** your mind,*
***Explore** the world,*
***Escape** the cold,*
***Power-walk** to the farthest corners of the Earth . . .*

with an intrepid band of early-morning movers and shakers. Join this Wednesday-morning fitness walk through the Museum for Members at the Contributor level ($175) and above.

13 Wednesdays, January 5, through March 30, 2005, 8:00–9:30 a.m.

You are invited to bring a guest to the first session kick-off event. Subsequent sessions are for registered Members only.

Call Lan Cheung at 212-313-7607 to register. Space is limited.

Membership Department
Central Park West at 79th Street
New York, New York 10024-5192
www.amnh.org

rotunda

OL. 30 NO. 1 JANUARY/FEBRUARY 2005

MEMBERS' NEWSLETTER

H70
U52
5
. 30
o. 1
an-Feb
005

AMERICAN MUSEUM OF NATURAL HISTORY

Museum Notes

CURRENTLY ON VIEW

Totems to Turquoise: Native North American Jewelry Arts of the Northwest and Southwest

Through July 10, 2005
Gallery 3

This groundbreaking exhibition celebrates the beauty, power, and symbolism of the magnificent tradition of Native American arts, examining techniques, materials, and styles that have evolved over the past century as Native American jewelers have adapted to technical, societal, and commercial changes, transforming their traditional craft into a vital form of cultural and artistic expression.

Frogs: A Chorus of Colors

Through January 9, 2005
Gallery 77

Twenty-four species of frogs, from the tiny golden mantella frog (less than an inch long) to the enormous African bullfrog (up to eight inches in diameter) live in re-created habitats, complete with rock ledges, live plants, and waterfalls.

Frogs: A Chorus of Colors *is presented with appreciation to Clyde Peeling's Reptiland.*

Art in Nature: The Photographs of John Daido Loori

Through January 9, 2005
Akeley Gallery

Striking abstract photographs by Zen master John Daido Loori explore notions of scale in the dramatic land- and seascape of Point Lobos State Reserve in California.

This exhibition is made possible by the generosity of the Arthur Ross Foundation.

Vital Variety: A Visual Celebration of Invertebrate Biodiversity

Through Spring 2005
IMAX® Gallery

Beautiful close-up photographs highlight the importance of the immense diversity of invertebrates and their critical role in the survival of humankind.

The Butterfly Conservatory: Tropical Butterflies Alive in Winter

Through May 30, 2005
Whitney Memorial Hall of Oceanic Birds

Now in its seventh year, this popular exhibition once again includes more than 500 live, free-flying tropical butterflies. Visitors can mingle with the butterflies and learn about the butterfly life cycle, defense mechanisms, evolution, and conservation.

Admission is by timed entry only. Tickets are $9.50 for Members and $5.50 for Members' children.

Fall Colors across North America

Through March 13, 2005
IMAX® Corridor

The fiery colors of autumn come to life in these images by Anthony E. Cook. See p. 10 for more information.

Exploring Bolivia's Biodiversity

Opens January 25, 2005
Akeley Gallery

These vibrant photographs portray some of the many life forms of Bolivia's varied geography. See p. 10 for more information.

This exhibition is made possible by the generosity of the Arthur Ross Foundation.

PLANETARIUM SHOWS

SonicVision

Weekdays, 4:30 p.m. (for a limited time)
Fridays and Saturdays, 7:30, 8:30, and 9:30 p.m.

Get ready for the mind-warping experience of your life! Hypnotic visuals and rhythms surround viewers in *SonicVision*, a trip out of this world and into the minds of the universe's most creative digital animators, set to a soundtrack of today's coolest music.

Presented in association with MTV2 and in collaboration with renowned artist Moby.

SonicVision *is made possible by generous sponsorship and technology support from Sun Microsystems, Inc.*

Cover:
A young student explores OLogy. | C. Chesek/AMNH

In The Butterfly Conservatory | R. Mickens/AMNH

The Search for Life: Are We Alone?

This Space Show will whisk you on an incredible journey from the lightless depths of Earth's oceans to newly discovered planets on a quest for worlds that might support life.

The Search for Life: Are We Alone? *is made possible through the generous support of Swiss Re.*

Passport to the Universe

The original Hayden Planetarium Space Show, narrated by Tom Hanks, is back by popular demand!

The Space Shows were developed by the American Museum of Natural History in collaboration with the National Aeronautics and Space Administration (NASA). Written by Ann Druyan and Steve Soter. Music by Stephen Endelman.

IMAX® MOVIES

Samuel J. and Ethel LeFrak Theater
Call 212-769-5100 for showtimes.

Lewis & Clark: Great Journey West

Trace the historic journey of Meriwether Lewis and William Clark through the uncharted West and experience the dramatic lands they traversed.

Vikings: Journey to New Worlds

Discover the historical and cultural impact and scientific and technological achievements of this legendary society of seafaring explorers.

Vikings prepare for a raid. | © Sky High Entertainment

AND DON'T MISS...

Winter Dance Celebrates Heavenly Bodies

Thursday, February 17, 2005
Dinner 7:30 p.m. $500
Dancing 9:00 p.m. $175

Dress up, dine, and dance the night away in the majestic halls of the Museum with 600 of New York's most stylish young professionals. Known for its inventive themes and electrifying atmosphere, all proceeds from the Winter Dance benefit the Museum's scientific and educational programs.

Chairmen: Claire Bernard, Olivia Chantecaille, Lauren Davis, Tinsley Mortimer, Eugenia Silva, Ivanka Trump

For more information, please call 212-496-3495 or visit www.amnh.org/join.

Moby and Stacey Bendet at the 2004 Winter Dance | R. Mickens/AMNH

Online Science Courses for Educators

Register now for January offerings.

Are you a K–12 educator? You can deepen your knowledge of the life, Earth, and physical sciences with an online course from Seminars on Science, the Museum's award-winning online professional development program. Courses are available for up to four graduate credits. All you need is Internet access. For more information, please visit http://learn.amnh.org or call 800-649-6715.

Seminars on Science is generously supported by The Atlantic Philanthropies.

AMNH Birthday Parties

Recently named "Best Themed Parties" by *New York* magazine's annual Family Guide issue, Linda Kaye's Partymakers will help your child celebrate his or her birthday with the wildest party in town—at the American Museum of Natural History!

"If there was a rating higher than excellent, you'd get it on all counts...it was unbelievably great."—Aimee Bell, Dinosaur Discovery party, child age 5

Party themes include a **Safari Adventure**, where guests search for hidden treasure in the Akeley Hall of African Mammals, and **Dinosaur Discoveries**, in which guests become real paleontologists. Other party themes include **Underwater Treasures**, **Global Mysteries**, and the out-of-this-world **Cosmic Blast-Off** party.

Parties are tailored for children ages 4 and up and are available seven days a week as a benefit to Contributor and higher-level Members only. For more information and to request a date, see our online brochure at www.partymakers.com or call Linda Kaye's Partymakers at 212-288-7112.

Northwest/Southwest Café on 4

At the Northwest/Southwest Café on 4, opened in conjunction with the special exhibition *Totems to Turquoise*, the contemporary menu of Native American cuisine includes traditional recipes used by the Native peoples of the Northwest and Southwest, such as fry bread, roast butternut squash, smoked salmon salad, dried fruits and nuts, and much more. Visitors may be surprised to discover to what extent Native American foods have been incorporated into our diet.

As always, Members receive a 15% discount in the Museum's dining facilities—simply present your Membership card at the start of your transaction.

rotunda

ISSN 0194-6110
USPS Permit #472-650
Vol. 30, No. 1, January/February 2005

Lewis W. Bernard, *Chairman*
Ellen V. Futter, *President*
Lynn DeBow, *Senior Vice President for Development and Membership*
Rosemary Caulk, *Director of Membership*

Rotunda is published bimonthly, except for a combined issue in July/August/September and a single issue in December, by the Membership Office of the American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192. Phone: 212-769-5606. Web address: www.amnh.org. Museum membership of $55 per year and higher includes a subscription to *Rotunda*. ©2004 American Museum of Natural History. Periodical postage paid at New York, NY, and at additional mailing offices. Postmaster: Please send address changes to *Rotunda*, Membership Office, AMNH, at the above address. Printed in the USA.

OLogy

Now kids can explore Earth science at OLogy, the Museum's free, science-rich Web site!

Scientific and technological advances of the late 20th century have made the Museum's mission to foster universal scientific literacy all the more important. Part of that mission, undertaken by the Department of Education's National Center for Science Literacy, Education and Technology, involves taking the Museum's resources "beyond the walls" to help people everywhere learn about real science where it happens: out in the world. One of these resources is OLogy, the Museum's science-rich Web site for kids.

A favorite destination for 7- to 12-year-old kids (and up!), OLogy taps into their innate scientific curiosity about the natural world. The suffix "ology" means the study of something, and each OLogy topic is a specific scientific discipline. Each topic is developed with scientists, educators, and kids to ensure that the science is rich, thorough, and accurate and the tone and style are engaging.

In October 2004, a new section of OLogy was launched: "Earth: Our World in Motion," covering Earth science. Like all topics in OLogy, the Earth science section follows the Museum's exhibition and research priorities. It presents scientific concepts and stories from the Gottesman Hall of Planet Earth in interactive formats, and features ongoing research from the scientists of the Department of Earth and Planetary Sciences. In the feature "Making Rocks," Jim Webster, Division Chair and Curator-in-Charge, takes children on a virtual visit to his lab to see how he conducts research on explosive volcanoes. Curator George Harlow shares his field expeditions to research the origins of the minerals jadeite and nephrite and their uses by other cultures around the world.

Earth: Our World in Motion is a great way to extend a visit to the Rose Center for Earth and Space, the Ross Hall of Meteorites, or the Morgan Memorial Hall of Gems. Back at home or in the classroom, kids can go online to discover how the Earth is always changing, find out that every rock has a story to tell, and explore mysteries about the planets. In "Plates on the Move," kids explore a map-based interactive about plate tectonics and the dramatic processes—such as earthquakes and volcanic eruptions—that affect our daily lives. In "Journey to Deep Sea Vents," kids take a virtual dive to a deep-sea hydrothermal vent to learn how Earth supports life in extreme environments.

Earth science isn't the only topic covered in OLogy. There's also Archaeology: Clues from the Past; Astronomy: Our Place in Space; Biodiversity: Everything Counts; Way to Go, Einstein! (physical science); The Gene Scene; Marine Biology: The Living Oceans; and Paleontology: The Big Dig. Each topic has many feature stories to explore and includes engaging, interactive activities and games. One of the largest features of each topic within OLogy is "Stuff to Do," which is full of activities to do away from the computer. Kids can learn how to make rock candy, create their own weather station, and draw dinosaurs, all with inexpensive and easy-to-find materials.

The 3,000-year-old Kunz Axe is carved from jade | D. Finnin/AMNH

Many OLogy topics also have a quiz for kids to show what they know and a poll to share their opinions. A feature called "Meet the Ologist" has kid-friendly pictures and interviews with Museum scientists. For example, Edmond Mathez, Curator in the

Stalagmites | AMNH; illustration by Eric Hamilton

Department of Earth and Planetary Sciences, was interviewed for Earth: Our World in Motion.

One of the site's most engaging components is a set of over 200 interactive virtual OLogy "cards." These appeal to children's love of digging into a topic and collecting and classifying information. A red asterisk next to a person, place, thing, or phenomenon throughout the site indicates the presence of a card. These multifaceted digital cards contain stories, quizzes, statistics, and photos that delve deeper into the card's theme. Kids are encouraged to "collect" OLogy cards, and a special section of the OLogy site allows them to register as OLogy members, create their very own home page, and build and store their collections. Like all other features of OLogy, membership is free and individual home pages are password-protected.

On their home pages, kids can view and sort their card collections, as well as make "projects" using cards from their collections. Kids pick between three interactive project templates—story starters, stumpers, and groups—to share their explorations and learning from OLogy. Projects can be submitted to Museum staff for review. The most scientifically creative and interesting projects are posted in the "Hall of Fame" for everyone to see.

The "For Educators" section includes an index of all OLogy features with teacher tips and science standards, an After-School Educator's Guide to OLogy, and related print and Web-based resources. This Web site facilitates the adaptation of OLogy resources by educators and parents for use in classrooms, after-school programs, and home learning.

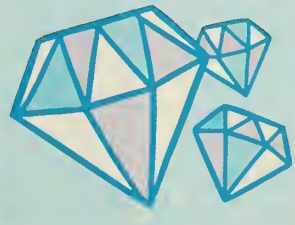
OLogy has received much recognition for educational technology and home learning, including: 2004 Technology and Learning Award of Excellence, 2004 Distinguished Achievement Awards for Navigation and Interactive Feature, 2004 Science & Technology Web Award for *Science For Kids* from ScientificAmerican.com, and Parents' Guide to Children's Media Awards in both 2002 and 2003.

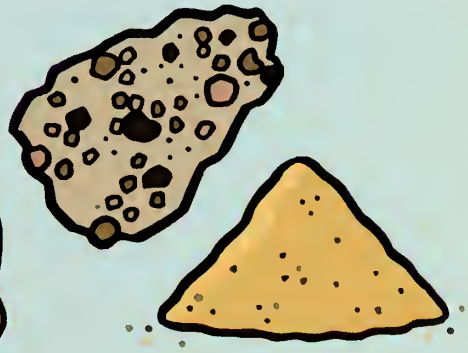
The Museum is honored by the recognition and we thank our Ologists of all ages for their help in creating the Web site. Future Ology sections will continue to provide engaging content related to the Museum's exhibitions and research areas.

OLogy is a safe Web site for young people to develop their interest in science and our world. Now kids don't have to leave the Musuem when they walk out the doors. They can visit the Museum any time they want to by going to the Kids and Family section of the Museum's Web site, www.amnh.org, or visiting OLogy directly at www.ology.amnh.org.

The development of OLogy has been made possible by a generous grant from the Louis Calder Foundation.

Kids in the Science and Nature Program explore OLogy | C. Chesek/AMNH





AMNH; illustrations by Daryll Collins

Members' Programs

Programs are available to Members only, unless a non-Member's price is given.

Curator Dave Grimaldi | D. Finnin/AMNH

LECTURES

400 Million Years on Six Legs

Tuesday, March 1 ML 030105
7:00–8:30 p.m.
Kaufmann Theater
$12 ($15 Non-Members)

The supremacy of insects on our planet is the result of 400 million years of evolution. David A. Grimaldi, Curator in the Division of Invertebrate Zoology, discusses major events in insect evolution: cataclysmic extinctions, how insects partnered with flowering plants as pollinators, how they became effective vectors of disease, and how flight and metamorphosis have aided in their unmatched success.

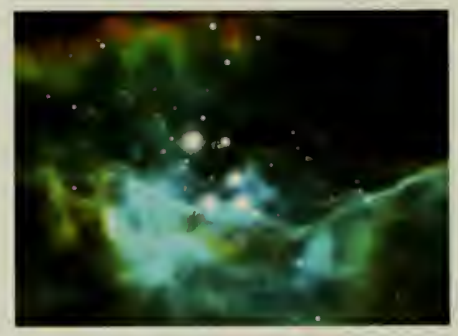
Grimaldi has traveled to 40 countries on six continents collecting and studying insects and conducting fossil excavations. His latest book, coauthored with Michael S. Engel, *Evolution of the Insects*, chronicles the complete evolutionary history of insects. He is also the author of *Amber: Window to the Past*.

Descent: The Heroic Discovery of the Abyss

Thursday, April 21 ML042105
7:00–8:30 p.m.
Kaufmann Theater
$12 ($15 Non-Members)

Brad Matsen discusses his latest book, *Descent: The Heroic Discovery of the Abyss*. The book recounts the 1930s ocean explorations of Otis Barton and William Beebe. Their first dive—a quarter of a mile deep—in the Barton-designed "bathysphere" was a stunning achievement that laid the foundation for today's understanding of the ocean's complexities.

Matsen is the author of many books and articles about the sea and its inhabitants. He was a creative producer for *The Shape of Life*, the National Geographic Television/Sea Studios Foundation series, and cowrote the accompanying book of the same name.



Digital rendering of the Orion Nebula | AMNH and San Diego Supercomputer Center

BEHIND-THE-SCENES TOURS

Rose Center

Thursday, February 10 MB021005
6:30, 7:00, or 7:30 p.m.
$30

On this exclusive tour, Members will find out what goes on behind the scenes at the Rose Center for Earth and Space, home to the spectacular Hayden Planetarium and the Department of Astrophysics. Orsola De Marco, a research scientist who studies stars, guides you through the production and operation of the AstroBulletin, a project designed to bring you the latest news of the observable universe. Brian Abbott, Manager of the Digital Universe Project, reveals the Hayden Planetarium's three-dimensional "virtual universe," the world's largest cosmic atlas. Fly among nearby stars and explore recently discovered exoplanets in the Space Theater. Dave Zurek, Data Collections Manager, gives an overview of the research being conducted in the Department of Astrophysics. Learn about the Department's goals and future direction.

Dinosaurs Alive

Tuesday, March 15 MB031505
6:30, 7:00, or 7:30 p.m.
$30

Join us for a unique experience: witness how lifelike models of dinosaurs and other prehistoric animals and plants are re-created for the Museum's upcoming exhibition *Dinosaurs Alive: Ancient Fossils, New Ideas*, opening in May 2005. Members are invited to meet with the Department of Exhibition's artists, who are creating a Late Cretaceous diorama scene for the exhibition based on the latest research and discoveries from Liaoning Province, China. This is an unprecedented chance to learn about the design and production of an exhibition.

Meteorites Collection

Thursday, March 31 MB033105
6:30, 7:00, or 7:30 p.m.
$30

Meteorites tell the story of the birth of our solar system. Denton Ebel, Assistant Curator in the Department of Earth and Planetary Sciences and curator of the recently renovated Ross Hall of Meteorites, will lead a tour through the hall. Then, colleagues in the department will take Members behind the scenes to learn about the research being conducted in the Museum's analytical laboratories. CAT

For tickets, call 212-769-5200, Monday–Friday, 9:00 a.m.–5:00 p.m., or visit www.amnh.org. Please have ready your credit card, your Membership number, and the program code. All Members' programs require advance registration.

The Hunting Dogs diorama in the Akeley Hall of African Mammals | D. Finnin/AMNH

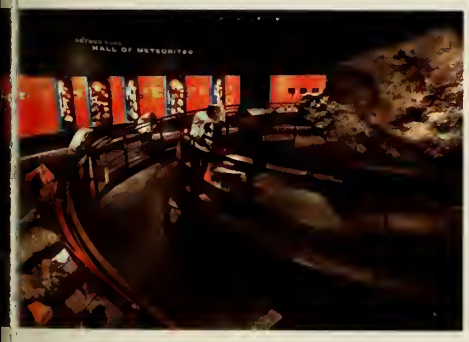
scans of meteorites, often surprisingly beautiful, shed light on how these ancient rocks formed, but also present some unsolved mysteries.

ADULT WORKSHOP

Insect Detectives: Prehistoric Mysteries and Crime Scene Investigation

Tuesday, February 16 MK021605
6:30–8:00 p.m.
$40

Members are invited to the Division of Invertebrate Zoology to explore some of the Museum's vast insect collections. Paleoentomologist Paul Nascimbene will discuss the latest discoveries in ancient amber, of which the Museum has one of the world's most important research collections. Members will tour the Fossil Insect Lab, learn how amber is prepared, and view specimens from the Museum's Cretaceous amber collection. Then, entomological sleuth Lou Sorkin will describe the forensic uses of insects and cases of insect infestations.



Arthur Ross Hall of Meteorites | D. Finnin/AMNH

CHILDREN'S WORKSHOP

Environments and Adaptations: How Can They Live There?

Sunday, February 6 MC020605
10:30 a.m.–12:00 noon or 1:30–3:00 p.m.
Rose Center Classroom
$28 (Ages 5–7)

Educator Arthur Horan leads this expedition to examine life around geothermal vents, organisms that thrive in the extreme heat of the desert, and creatures that exist at the deep, dark depths of the ocean. Explorers will then make a portrait of their favorite organisms based on what they learned.

HALL TOURS

For Love of Dogs

Saturday, February 5 MT020505
Sunday, February 6 MT020605
4:00–5:30 p.m.
Free (Registration required)

How did wild animals become our companions and playmates? "Bone up" on dogs with Museum Tour Guide Donna Walcavage and explore the natural history of man's best friend. Visit the fossil halls to learn about canid evolution and examine modern wild dogs in the Museum's renowned dioramas. Learn about current theories on domestication and new DNA studies that contribute to understanding these loyal friends.

Charles Darwin and Sex

Saturday, February 12 MT021205
2:00–3:30 or 4:00–5:30 p.m.
Free (Registration required)

Celebrate Charles Darwin's birthday with Museum Tour Guide Wanda Finch. Explore the Museum with an eye toward one of Darwin's theories, sexual selection, which is thought to lead to differences in appearance between males and females in many species. Consider our present understanding of Darwin's work and ongoing study in this field.

PREVIOUSLY LISTED

Limited space may still be available for these programs.

Big Bang

Tuesday, January 18 ML011805
7:00–8:30 p.m.
Kaufmann Theater
$12 ($15 Non-Members)

Science writer Simon Singh explains the Big Bang theory in straightforward terms.

Geology of North America

Tuesday, January 25 MT012505
5:30–7:00 p.m.

Geology of Africa

Tuesday, February 1 MT020105
5:30–7:00 p.m.
$20 each ($35 for both)

Enjoy walking tours of the dioramas with Sidney Horenstein.

Behind the Scenes in the Digital Library

Thursday, January 27 MB012705
6:30–7:30 p.m. or 7:30–8:30 p.m.
$30

Tour the Special Collections Unit of the Museum's Research Library with Anthony Troncale, Assistant Director for Digital Collections, and Tom Baione, Assistant Director for Client Services.

From A to Zeiss

Wednesday, February 23 ML022304
6:30–8:00 p.m.
Hayden Planetarium Space Theater
$15 ($18 Non-Members)

See the Zeiss Mark IX Star Projector in action with Matthew Dougherty, Zeiss Programmer and Hayden Planetarium Instructor.

Diamond Discoveries in Canada: New Frontiers in the Arctic

Seven-carat Canadian diamonds in the rough, shown on kimberlite | Aber Diamond Corporation

Thursday, March 24 **ML032405**
7:00–9:00 p.m.
Kaufmann Theater
$12 ($15 Non-Members)

In 1991, working against conventional wisdom and guided by what was considered a wild theory, Canadian geologist Charles Fipke of CF Minerals, Ltd., discovered diamonds near Lac de Gras in Canada's Northwest Territories. The Ekati mine, opened in 1998, annually yields five million carats of primarily gem-quality stones. Another Canadian geologist, Eira Thomas, had similar success. In 1994, at age 25, she pulled a two-carat gem from a kimberlite core sample at what is now the Diavik mine at Snap Lake, also in the Northwest Territories. These two mines have propelled Canada in just six years from a nonproducer of diamonds to the world's third largest, by value of stones produced.

These discoveries are changing our understanding of how diamonds journey from deep within the earth to become objects of desire and dazzling refractors of light. This panel discussion will explore the geology and human impact of Canada's diamond discoveries. You will also learn about the state of new claims and exploration, the life cycle of a diamond mine, and the downstream changes that are occurring in the processing and distribution of diamonds from Canada.

George Harlow, Curator of Minerals and Gems in the Department of Earth and Planetary Sciences and author of *The Nature of Diamonds*, will moderate the discussion. Panelists include Charles Fipke; Eira Thomas, now president of Stornoway Diamond Corporation; R. Peter Gillin, chairman and CEO of Tahera Diamond Corporation, currently establishing a mine in Canada's Nunavut territory; and Esther Fortunoff, executive vice president of merchandising for Fortunoff, which sells Canadian diamonds.

A wine and cheese reception will follow the lecture, courtesy of the Canadian Consulate General, our cosponsors for this event.

An Evening with Roger Rosenblatt: "The Narrative Species"

Roger Rosenblatt | Nigel Parry

Thursday, March 10 **ML031004**
7:00–9:00 p.m.
Kaufmann Theater
$12 ($15 Non-Members)

Join us for a lively and fascinating evening with Roger Rosenblatt, one of America's finest writers. His work for *Time* magazine has won two George Polk Awards as well as many others. His television essays for the *NewsHour with Jim Lehrer* have won Peabody and Emmy awards. He is the author of ten books, including the national bestseller *Rules for Aging*. Rosenblatt has also had a distinguished academic career as a Fulbright Scholar in Ireland and teaching writing at Harvard, where he earned his Ph.D. Five universities have awarded him honorary doctorates and Long Island University appointed him its first University Professor of Writing.

Of the evening's topic, he says, "In ancient Ireland a court poet was called The Music, which was a creative way of distinguishing his duties from those of the king's advisers and warriors. In those days, not unlike ours, kings attacked one another whenever possible. And when one king stormed the castle of another, his men were under strict instructions to slaughter everyone inside, including the rival king. But there was one exception, and that was The Music. They never were to harm The Music. And the only explanation given for this was that he was The Music.

"This is a talk about the power, prominence, significance, sanctity, and mystery of writing and storytelling in human experience. People constitute a narrative species: that is the talk's main idea, actually its only idea. We used to congratulate ourselves for being a rational species, but given human behavior, that has become more of a generally accepted joke. A narrative species is something else. The idea suggests that our evolution (which originally referred to the unrolling of a scroll) is tied to our ability to tell the story of ourselves—in law, medicine, business, art, religion, anything—until we get it right."

Dinosaur Science Warming Up

Dinosaurs are starting to look downright cuddly, new research by American Museum of Natural History scientists suggests. First came fossil evidence of fluffy protofeathers on a small and primitive tyrannosaur, *Dilong paradoxus*, described by Mark A. Norell, Curator and Chairman of the Division of Paleontology at the Museum, Xu Xing of the Institute of Vertebrate Paleontology and Paleoanthropology in Beijing (and a postdoctoral fellow at the Museum), and their colleagues. A week later, the pair published a second paper on a new troodontid, *Mei long*, discovered in a remarkable lifelike resting pose with its head tucked between its forearm and trunk, as is observed in modern birds.

Artist's rendering of Dilong paradoxus | Portia Sloan, IVPP/AMNH

Since tyrannosaurs didn't fly, their feathers likely helped them regulate their body heat, in other words, stay warm, the scientists say. And the troodontid's tucked position while resting probably also helped conserve heat, as it does for living birds in the same position. It's too early to say for certain, but both new findings suggest that these dinosaurs were warm-blooded, not cold-blooded like many of their reptilian relatives alive today. And *Dilong*'s protofeathers and *Mei long*'s sleeping pose support the already-established evolutionary connection between extinct dinosaurs and modern birds (which are living dinosaurs) and the occurrence of birdlike features in early dinosaurian evolution.

"The discovery of protofeathers in such a primitive tyrannosaur is giving us a much clearer picture than we had even five years ago of how these animals looked and provides even more evidence of the shared evolutionary features between nonavian dinosaurs and living birds," Dr. Norell said.

Both new dinosaur species are described in recent papers published in the journal *Nature*. The 130-million-year-old fossils were discovered in northeastern China's Liaoning Province, where researchers have discovered that the soft-tissue features, such as feathers and beaks, of dozens of recently unearthed specimens have been preserved along with their bones. "With the discovery of *Dilong paradoxus* and *Mei long* and all of the other exciting fossils recently found in Northern China, Liaoning Province is now the most important place in the world for fossils that are relevant to the origin of birds," Dr. Xu said.

Scientists only started to discover evidence of soft-tissue features in dinosaur fossils eight years ago, and the featherlike structures on *Dilong* are the first found on any kind on tyrannosaurs, predominantly large dinosaurs with short forelegs that walked on Earth between 130 and 65 million years ago. So the new finding suggests that other tyrannosaurs, such as *Albertosaurus sarcophagus*, *Daspletosaurus torosus*, and even the fierce *Tyrannosaurus rex*, were covered with fluffy protofeathers at some stage in their lives. The protofeathers on *Dilong* are branched and three-quarters of an inch long.

Artist's rendering of Mei long | M. Ellison/AMNH

Mei long is also a small birdlike animal, measuring less than two feet long. Troodontids are one of the most avian-like dinosaur groups and are part of a larger group of dinosaurs called theropods. Characterized by large brains, stereoscopic vision, and distinctive teeth serrated like a steak knife, theropods, including *T. rex*, are two-legged predators with bones strikingly similar to modern birds.

Models of both dinosaurs will be featured in a groundbreaking new exhibition, ***Dinosaurs Alive: Ancient Fossils, New Ideas***, that will open at the Museum on May 14, 2005, curated by Dr. Norell. On view through January 8, 2006, the exhibition will reveal how current thinking about dinosaur biology has changed dramatically over the past two decades, and will highlight ongoing cutting-edge research by Museum scientists and other leading paleontologists around the world. Visit www.amnh.org/exhibitions/dinosalive to learn more.

Exploring Bolivia's Biodiversity

The Apolobamba National Integrated Management Area protects a population of over ten thousand vicuñas in the Bolivian Andes. | Hermes Justiniano

Opens January 25, 2005
Akeley Gallery

Spectacular photographs of Bolivia's extraordinary biodiversity take viewers on a journey from the mountains and valleys of the Andes to the dense lowland tropical forests of the Amazon and the dry forests of the Chaco. This exhibition also highlights how the livelihoods and cultures of Bolivia's diverse peoples are closely intertwined with nature, from agriculture, architecture, and textiles, to traditional medicines and spirituality. Informative captions are in both English and Spanish.

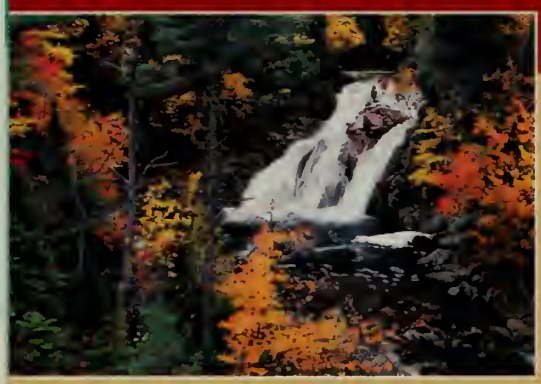
Since 1998, the Museum's Center for Biodiversity and Conservation (CBC) has partnered with Bolivian scientists and resource managers to survey critical habitats in protected areas along the Amboró-Madidi corridor of the Bolivian Andes—an area with both extremely high biodiversity and many communities and villages. This collaborative effort aims to improve management of natural resources to promote the benefits of conservation and foster broad community participation in conservation. This new exhibition builds on, and highlights, these experiences.

While Bolivia is well known for its mountains, nearly two-thirds of the country's land area is lowland forests, grasslands, and wetlands. Bolivia is one of the two countries in the Western Hemisphere (the other being Guatemala) whose majority population comprises indigenous peoples—representing more than 30 different ethnic groups.

The exhibition will be adapted for permanent display at the Museum's partner institutions in Bolivia: the National Museum of Natural History in La Paz and the Noel Kempff Mercado Natural History Museum in Santa Cruz. This project will enable the Bolivian museums to expand existing educational programs on biodiversity. The CBC and its Bolivian museum partners will also identify complementary educational products to extend the reach of the project throughout Bolivia.

This exhibition is made possible by the generosity of the Arthur Ross Foundation.

Fall Colors across North America



Mary Ann Falls, Cape Breton Highlands National Park, Novia Scotia, Canada | © Anthony Eaton Cook

Now through March 13, 2005
IMAX® Corridor

Fall Colors across North America, an exhibition of over 35 color photographs by Anthony Eaton Cook, which opened September 25, 2004, at the American Museum of Natural History, offers visitors a chance to view brilliantly colored fall foliage in pristine settings without having to leave the city—even through the winter.

This exhibition features remarkably beautiful photographs that showcase the unique natural features of autumn in North America. Cook, an author, painter, naturalist, conservationist, and photographer, spent four autumns traveling via floatplane, river raft, mountain bike, and on foot, taking pictures in the deciduous color belt that runs from the southeastern United States up through Canada and Alaska.

The images of *Fall Colors across North America* are accompanied by text identifying each geographical area. Additional text panels provide information about the science behind the beautiful colors of autumn: why leaves change color in the fall and what determines their color. Highlights of the exhibition include a photograph of the magnificent Havasu Falls in the Havasupai Indian Reservation, Arizona; a mountain view from Blue Ridge Escarpment in Mountain Bridge Wilderness, South Carolina; and a beautiful reflection of falling leaves in Baxter State Park, Maine.

Joel Cracraft, Curator, Division of Vertebrate Zoology, is curating *Fall Colors across North America* at the Museum. The exhibition is accompanied by a book of the same title, published by Graphic Arts Center Publishing Company. The 128-page book is available in the Museum Shop for $39.95. Members' discount applies.

Maroon Lake, Maroon Bells-Snowmass Wilderness Area, Colorado, United States | © Anthony Eaton Cook

butterflies...

neer up the winter
ues with a unique
tterfly gift from
e Butterfly
onservatory Shop!
ow featuring a
lorful array of 3-D
tterfly magnets, a
aciful new kids'
shirt, an award-
nning, paint-your-
n bug house kit,
d much more.
place orders or
more infor-
tion, call our
rsonal shopper,
dia Forster Brock,
1-800-671-7035,
send email to
opper@amnh.org.

AMERICAN MUSEUM OF NATURAL HISTORY

WWW.AMNH.ORG

...are a girl's best friend!

General Information

HOURS

Museum: Daily, 10:00 a.m.–5:45 p.m.
The Rose Center remains open until 8:45 p.m. on Friday. The Museum is closed Thanksgiving and Christmas.
Space Show: Every half hour, Sunday–Thursday and Saturday, 10:30 a.m.–4:30 p.m., Friday, 10:30 a.m.–7:00 p.m.
Research Library: Tuesday–Thursday, 2:00–5:30 p.m.
Hours are subject to change.

ENTRANCES

During Museum hours, visitors may enter through the subway (lower level), Central Park West at 79th Street (second floor), and the Rose Center/81st Street entrances. The 77th Street and Weston Pavilion/Columbus Avenue entrances are closed until further notice.

TRANSPORTATION AND PARKING

Subway: B (weekdays) or C to 81st Street; 1 or 9 to 79th Street
Bus: M7, M10, M11, or M104 to 79th Street; M79 to Central Park West
Parking Garage: Open daily, 8:00 a.m.–11:00 p.m.; enter from West 81st Street. Members receive a discounted rate of $10 if entering after 4:00 p.m. To receive this rate, you must have your parking ticket validated at the Security Desk (first floor, Central Park West entrance). For more information, call 212-313-7278.

FOOD SERVICE

Museum Food Court: Daily, 11:00 a.m.–4:45 p.m. (*lower level*)
Northwest/Southwest Café on 4: Saturday and Sunday, 11:00 a.m.–4:45 p.m (*fourth floor*)
Café 77: Saturday and Sunday, 11:00 a.m.–4:45 p.m (*first floor*)
American Soup Café : Hours as posted (*lower level*)
Hours are subject to change.

MUSEUM SHOP

The following Museum Shops are open during regular Museum hours:
Main Shop (*first and second floors*)
Dinostore and More (*fourth floor*)
Planetarium Shop (*Rose Center, lower level*)
Satellite Shop (*Rose Center, first floor*)
Frogs Shop (*through January 9, first floor*)
Butterfly Shop (*second floor*)
Totems to Turquoise: The Shop (*third floor*)

PHONE NUMBERS

Museum Information	212-769-5100
Membership Office	212-769-5606
Planetarium Information	212-769-5900
Member Birthday Parties	212-769-5606
Education	212-769-5310
Planned Giving Office	212-769-5119
Patrons Circle	212-769-5153
Discovery Tours	212-769-5700
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	646-356-6500
Web Site	www.amnh.org

AMNH eNotes delivers the latest information on Museum programs and events to you via email. Visit www.amnh.org to sign up today!

AMERICAN MUSEUM OF NATURAL HISTORY

Rotunda.
American Museum of Natural History
Received on: 01-18-05

Isaac Asimov
The Enigma of

SAVE THE DATE

Wednesday, March 30, 2005

The American Museum of Natural History's Hayden Planetarium will once again host the annual Isaac Asimov Memorial Debate. This panel debate, generously endowed by relatives, friends, and admirers of Isaac Asimov, will once again bring some of the finest minds in the world to the Museum to help shed new light on issues at the frontier of scientific discovery.

Membership Department
Central Park West at 79th Street
New York, New York 10024-5192
www.amnh.org

rotunda

OL. 30 NO. 2 MARCH/APRIL 2005

MEMBERS' NEWSLETTER

QH70
.U52
N5
v. 30
no. 2
Mar-Apr
2005

AMERICAN MUSEUM OF NATURAL HISTORY

Museum Notes

Brawn bear dish. Artist unknawn (Tlingit). Mid-1800s. AMNH callectian. | R. Mickens/AMNH

Katsina dolls. Ernest Maare, Jr. (Hapi). 2001. AMNH collectian. | C. Chesek/AMNH

CURRENTLY ON VIEW

Totems to Turquoise: Native North American Jewelry Arts of the Northwest and Southwest

Through July 10
Gallery 3

This groundbreaking exhibition celebrates the beauty, power, and symbolism of the magnificent tradition of Native American arts, examining techniques, materials, and styles that have evolved over the past century as Native American jewelers have adapted to technical, societal, and commercial changes, transforming their traditional craft into a vital form of cultural and artistic expression.

The Butterfly Conservatory: Tropical Butterflies Alive in Winter

Through May 30
Whitney Memorial Hall of Oceanic Birds

Now in its seventh year, this popular exhibition once again includes more than 500 live, free-flying tropical butterflies. Visitors can mingle with the butterflies and learn about the butterfly life cycle, defense mechanisms, evolution, and conservation.

Admission is by timed entry only. Tickets are $9.50 for Members and $5.50 for Members' children.

Caver: *A spider fassil fram Liaaning Pravince, China* | M. Ellisan/AMNH

Fall Colors across North America

Through March 13
IMAX® Corridor

The fiery colors of autumn come to life in these images by Anthony E. Cook.

Sunscapes

Opens April 2
IMAX® Corridor

Eruptions on the Sun interrupt communications, generate radiation, and occasionally push power grids to failure. Special optical systems and detectors allow us to image the violent atmosphere of the Sun, giving visual form to things our unaided eyes could never see. The most spectacular of these images will be shown in this exhibition.

Exploring Bolivia's Biodiversity

Through August 8
Akeley Gallery

These vibrant photographs portray some of the many life forms of Bolivia's varied geography.

This exhibition is made passible by the generasity af the Arthur Rass Faundatian.

Vital Variety: A Visual Celebration of Invertebrate Biodiversity

Ongoing
IMAX® Gallery

Beautiful close-up photographs highlight the importance of the immense diversity of invertebrates and their critical role in the survival of humankind.

75TH JAMES ARTHUR LECTURE ON THE EVOLUTION OF THE HUMAN BRAIN

The Neurobiology of Intuitive Decision-Making

Monday, March 7
6:00 p.m.
Kaufmann Theater
Free

Intuitive decision-making is a process whereby we reduce multidimensional problems into a simple metric, enabling us to react quickly in complex situations, such as those involving emotions. Neurological investigations implicate a class of neurons, the von Economo cells, unique to humans and apes, that may help us make decisions rapidly in the face of elaborate social and cultural contingencies.

John Morgan Allman is Hixon Professor of Neurobiology at the California Institute of Technology. His research focuses on the evolution of brain and behavior in primates and he is the author of *Evolving Brains* (1998).

PLANETARIUM SHOWS

SonicVision

Fridays and Saturdays, 7:30, 8:30, and 9:30 p.m.

Get ready for the mind-warping experience of your life! Hypnotic visuals and rhythms surround viewers in *SonicVision*, a trip out of this world and into the minds of the universe's

Catarata el Encanta ("Enchanted Waterfall") in eastern lawland Bolivia's Nael Kempff Mercada National Park | Hermes Justiniano

Jane Goodall pant-hooting with chimpanzee | Michael Neugebauer

most creative digital animators, set to a soundtrack of today's coolest music.

Presented in association with MTV2 and in collaboration with renowned artist Moby.

SonicVision *is made possible by generous sponsorship and technology support from Sun Microsystems, Inc.*

The Search for Life: Are We Alone?

This Space Show will whisk you on an incredible journey from the lightless depths of Earth's oceans to newly discovered planets on a quest for worlds that might support life.

The Search for Life: Are We Alone? *is made possible through the generous support of Swiss Re.*

Passport to the Universe

The original Hayden Planetarium Space Show, narrated by Tom Hanks, is back by popular demand!

The Space Shows were developed by the American Museum of Natural History in collaboration with the National Aeronautics and Space Administration (NASA). Written by Ann Druyan and Steve Soter. Music by Stephen Endelman.

IMAX® MOVIES

Samuel J. and Ethel LeFrak Theater
Call 212-769-5100 for showtimes.

Jane Goodall's Wild Chimpanzees

This fascinating and breathtaking film explores Dr. Jane Goodall's legendary work with the wild chimpanzees of Tanzania's Gombe Stream National Park. Viewers take an extraordinary trip deep into Gombe and across four decades of research to experience the world of our closest animal relatives.

Vikings: Journey to New Worlds

Discover the historical and cultural impact and scientific and technological achievements of this legendary society of seafaring explorers.

AND DON'T MISS...

Online Science Courses for Educators

Register now for June offerings.

Are you a K–12 educator? You can deepen your knowledge of the life, Earth, and physical sciences with an online course from Seminars on Science, the Museum's award-winning online professional development program. Each six-week course incorporates contemporary scientific research, includes content-rich resources, and is cotaught by Museum scientists and educators. Courses are available for up to four graduate credits. All you need is Internet access. For more information, please visit http://learn.amnh.org or call 800-649-6715.

Seminars on Science is generously supported by The Atlantic Philanthropies.

T. rex *cake* | Partymakers

AMNH Birthday Parties

Throw a memorable birthday celebration for your child that is both fun and educational. Choose from a variety of creative party themes in this very special setting: experience the thrill of seeing dinosaurs in a lifelike 3-D art show in **Dinosaur Discoveries**; dive to the depths of the ocean on an aquatic adventure with **Underwater Treasures**; crown the birthday child King or Queen of the Jungle on a **Safari Adventure**; or, for an out-of-this-world experience, venture into the great beyond and explore the Rose Center with a **Cosmic Blast-Off** party.

Parties are tailored for children ages 4 and up and are available seven days a week as a benefit to Contributor and higher-level Members only. For more information and to request a date, see our online brochure at www.partymakers.com or call Linda Kaye's Partymakers at 212-288-7112.

Healthy Choices for You and Our Planet

Restaurant Associates and the Museum are pleased to introduce organic whole fruit, snacks, and fruit juices to the menus of the Food Court on the lower level and Café 77 on the first floor. Included is a line of USDA-certified organic snacks for kids including pretzels, cookies, and crackers. In addition, RA is exploring ways to reduce waste (such as switching to condiment dispensers from individual packets) and is researching biodegradable disposable containers to use where feasible. As always, Members receive a 15% discount in the Museum's dining facilities—simply present your Membership card at the start of your transaction.

rotunda

ISSN 0194-6110
USPS Permit #472-650
Vol. 30, No. 2, March/April 2005

Lewis W. Bernard, *Chairman*
Ellen V. Futter, *President*
Lynn DeBow, *Senior Vice President for Development and Membership*
Rosemary Caulk, *Director of Membership*

Rotunda is published bimonthly, except for a combined issue in July/August/September and a single issue in December, by the Membership Office of the American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192. Phone: 212-769-5606. Web address: www.amnh.org. Museum membership of $55 per year and higher includes a subscription to *Rotunda*.

©2004 American Museum of Natural History.

Periodical postage paid at New York, NY, and at additional mailing offices. Postmaster: Please send address changes to *Rotunda*, Membership Office, AMNH, at the above address. Printed in the USA.

Paleontology at the American Museum of N

Home to the world's largest collection of vertebrate fossils, the American Museum of Natural History has a long and distinguished history of paleontological research around the globe. Museum scientists in the Division of Paleontology study the history of life on Earth through the discovery, analysis, and comparison of fossil remains of dinosaurs and other reptiles, mammals, birds, fishes, and invertebrates. The Museum's history includes some of the greatest names in paleontology and some of science's most important and groundbreaking field expeditions, including Roy Chapman Andrews's seminal Central Asiatic Expeditions (1921–1930), which revealed a treasure trove of fossils in the Gobi Desert of Mongolia, and Barnum Brown's India-Burma Expedition (1922–1923), which uncovered fossils that were, at the time, the earliest known primates in Asia.

The first curator of the Department of Invertebrates was hired in 1877, and the Department of Vertebrate Paleontology was founded in 1892 by Henry Fairfield Osborn (who became Museum president in 1908). Under Dr. Osborn, the Department's collection grew through expeditions to Australia, the Congo, Ecuador, Greenland, Patagonia, Peru, Central Asia, and other locations, and became the largest repository of fossils in the world. After Osborn's retirement, the Department was led by George Gaylord Simpson, Edwin H. Colbert, and Bobb Schaeffer. Because of these three curators' research, the Museum became central to the study of paleozoogeography (the distribution patterns of past life); the "Evolutionary Synthesis" theory incorporating genetics, ecology, field biology, anatomy, paleontology, zoology and biogeography; and functional morphology (the link between animals' form and movement).

The skull of Dilong paradoxus, *a newly identified feathered tyrannosaur* | M. Ellison/AMNH

Roy Chapman Andrews | AMNH

Currently, Mark A. Norell, an expert on "feathered" dinosaurs as well as coelurosaurs and numerous other dinosaurs and reptiles, is Curator and Chairman of the Division of Paleontology. Coelurosaurs, closely related to birds, include dinosaurs like tyrannosaurs and velociraptors. Among other projects, Dr. Norell is working with Joel Cracraft, Curator in the Division of Vertebrate Zoology, on a project that will arrive at a huge tree illustrating the family relationships among all archosaurs, a group that includes modern birds and their dinosaurian relatives.

Along with Michael J. Novacek, Senior Vice President, Provost, and Curator, Dr. Norell has co-led 15 joint expeditions since 1990 to the Gobi Desert of Mongolia with the Mongolian Academy of Sciences. These expeditions, continuing in the tradition of Roy Chapman Andrews, have yielded spectacular discoveries of dinosaurs, birds, and mammals. The Gobi has preserved a broad spectrum of creatures, from towering dinosaurs to tiny mammals that fit in the palm of your hand, all in exquisite detail. Museum scientists will return this summer—for the 16th consecutive year—to explore this vast desert.

In the past decade, Dr. Norell has also been making annual visits to China to confer with paleontology colleagues at Beijing University, the Chinese Academy of Geological Sciences, and the Institute of Vertebrate Paleontology and Paleoanthropology in Beijing. During these visits, he studies the newest fossils collected from Liaoning Province and other recently discovered rich fossil beds in China. These visits also enhance a strong and highly productive informal exchange of scientists and research that has developed in recent decades between these Chinese institutions and the American Museum of Natural History.

Along with ongoing analysis of mammal fossils found in the Gobi, Dr. Novacek has conducted extensive research on the evolutionary relationships of extinct and living mammals, drawing upon evidence from the fossil record and molecular biology. In 1993, he was one of the discoverers of

Ukhaa Tolgod, the richest Cretaceous fossil site known in the world.

Other Division curators include Niles Eldredge, an eminent evolutionary theorist who also is an expert on mid-Paleozoic trilobites and global extinctions of the geologic past. His curatorial colleagues in the Division include Eugene S. Gaffney, an expert on the evolution of turtles, especially side-necked turtles, a group that once was widespread and diverse on the southern continents; John J. Flynn, a well-established scientist who studies the evolution of mammals, especially carnivores, and dinosaurs, along with geological dating, plate tectonics, and biogeography; Neil H. Landman, an expert on ammonoids (now extinct) and nautiloids (persisting today as the genus *Nautilus*); John G. Maisey, who studies extremely rare shark fossils and their specialized anatomy; and Meng Jin, an accomplished scientist studying the evolutionary relationships among early mammals, including mice, rats, rabbits, and their extinct relatives.

Paleontology storage | R. Edwards/AMNH

A fossil ammonite | R. Edwards/AMNH

COLLECTIONS

The American Museum of Natural History's paleontology collection contains an estimated five million fossil specimens, including more than five hundred thousand fossil vertebrates, collected over 125 years. In addition to the specimens themselves, archival materials, including field notes, correspondences, illustrations, and photographs, contribute to the value of the collection. This collection is heavily used by researchers from around the world and is visited by more than 100 scientists each year. With support from NASA, Divison staffers have been developing a digital database of the Museum's paleontology collection.

The Museum's vertebrate paleontology collection is the largest and most diverse of its kind in the world, including more than one million specimens. The Division's combined collections fill 13 rooms on ten floors of the 25 interconnecting buildings of the Museum. Little of these vast holdings can be displayed in exhibits, for reasons of space or fragility. Most of the specimens are kept in research collections for study by visiting scientists and students. In November 1999, the Division moved its dinosaur collection and its invertebrate type collection into the C. V. Starr Natural Science Building, a new eight-story facility with state-of-the-art climate-controlled storage. This step ensures the preservation of irreplaceable and highly fragile prehistoric specimens for future generations.

The Museum's invertebrate paleontology collection numbers more than four million specimens. It was launched in 1873 with the acquisition of the massive collection of Paleozoic fossils of James Hall, comprising more than one hundred thousand specimens. These collections include a large number of North American ammonites—marine animals that lived some 400 million to 65 million years ago. Ammonite fossils are extremely rich in the information they yield to scientists about the history of life, the age of rocks in which they are found, and the location of prehistoric seas.

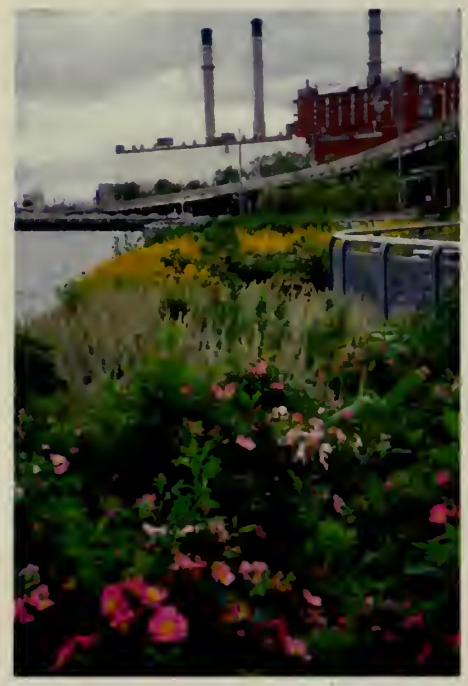
The Division houses two preparation laboratories, one for vertebrates and one for invertebrates. These preparation facilities are equipped for mechanical, micro, acid, and mechanized preparation techniques.

The combination of the Museum's superlative fossil collection, outstanding facilities, highly skilled support staff, and world-class curatorial cadre all reflect the Paleontology Division's illustrious past while also promising a bounty of new discoveries and fascinating insights for years to come about the history of Earth's living creatures.

DINOSAURS
Ancient Fossils, New Discoveries
Opens May 14, 2005

Members' Programs

Programs are available to Members only, unless a non-Member's price is given.



Stuyvesant Cove, on Manhattan's eastern waterfront | Donna Walcavage

EXPEDITIONS

"Green" in NYC

Saturday, April 2 MW040205
9:30 a.m.–3:00 p.m.
$55

Green architecture and sustainable design make positive contributions to the preservation of biodiversity and the natural environment. Join landscape architect and Museum Tour Guide Donna Walcavage for a tour of several "green" sites in New York City. Bruce Fowle of Fox & Fowle Architects will lead a tour of the Condé Nast building, known as the "green skyscraper." Members will also visit the award-winning Stuyvesant Cove waterfront park developed with the community and native flora and fauna in mind by Donna Walcavage Landscape Architecture and Urban Design.

Inside the Explorers Club

Wednesday, April 6 MW040605
6:30–8:30 p.m.
$40

Since its inception in 1904, the Explorers Club has served as a unifying force for explorers and scientists worldwide, counting many Museum curators and researchers among its membership. AMNH Members are invited to tour the Club's New York City headquarters with Clare Flemming, the Club's Curator of Research Collections. The tour is followed by a wine reception in the Club Library.

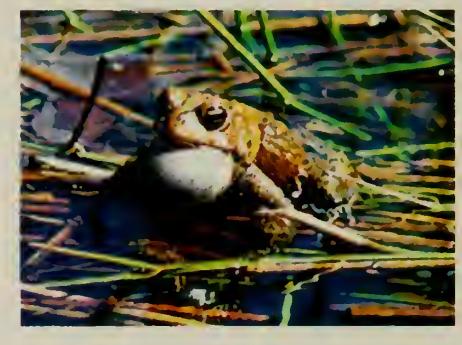
Inwood

Saturday, April 16 MW041605A
10:30 a.m.–12:00 noon

Fort Tryon

Saturday, April 16 MW041605B
1:00–2:30 p.m.
$20 each; $35 for both

Visit the Indian Caves of Inwood Hill Park, home to the last remaining natural woodland in Manhattan, and/or Fort Tryon Park, where different geological features are exposed. Both parks provide stunning vistas of the Hudson River. Join Sidney Horenstein for a walk through one or both.



Male frog vocalizing | Dave Karrmann

Amorous Amphibians

Saturday, April 23 MO042304
9:00 a.m.–5:00 p.m.
$75

The wetlands of Ward Pound Ridge Reservation, Westchester County's largest park and designated biodiversity preserve, are breeding grounds for a variety of amphibians and reptiles. Museum educator and herpetologist Dave Karrmann leads Members on this potential encounter with frogs, snakes, and turtles engaged in springtime activities. Fee includes transportation by private coach.

Spring Fever: Birdwatching in Prospect Park

Saturday, May 7 MW050705
8:00 a.m.–4:00 p.m.
$40

At least 270 bird species have been observed in the Park since records have been kept. Join Museum ornithologist Paul Sweet to explore the Park's birding hotspots to look for migratory birds en route from their winter homes in the tropics to their northern breeding grounds.

Hudson River Seining

Saturday, May 14 MO051404
9:00 a.m.–5:00 p.m.
$75

Learn about the fish fauna of the lower Hudson River with Robert Schelly of the Department of Ichthyology. In an excursion to Croton Point, Members will see some of the collecting methods used by ichthyologists while exploring the fish diversity of this area. Fee includes cost of travel by private coach.

On the Trail of the Earliest Jurassic Dinosaurs

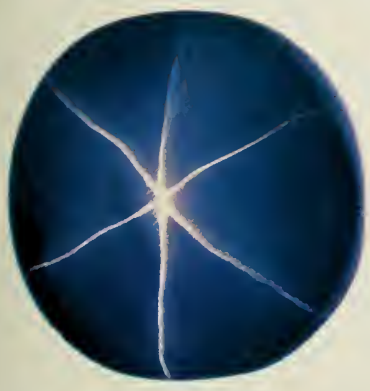
Saturday, May 21 MO052105
9:00 a.m.–5:00 p.m.
$75

Over 200 million years ago, dinosaurs left extensive trackways in what is now northern New Jersey. Theropods hunted herds of ornithopods, and their footprints can still be seen in shale on both sides of the Atlantic. Join Museum paleoentomologist Paul Nascimbene for a visit to two sites where the trackways of dinosaurs and other ancient creatures can be found. Fee includes transportation by private coach.

Spuyten Duyvil and Marble Hill
Monday, May 23 MW052305A
1:00–2:30 p.m.

Van Cortlandt Park
Monday, May 23 MW052305B
3:00–4:30 p.m.
$20 each; $35 for both

Join Sidney Horenstein for one or both of these walking tours in Riverdale, the Bronx. Learn about the area's history and see where Marble Hill was severed from Manhattan Island by the rerouting of the Harlem River. Learn the origin of the name Spuyten Duyvil and how geology controlled the development of this area.



The Star of India sapphire, one of the most famous gems in the Museum's collections | C. Chesek/AMNH

FAMILY WORKSHOP

All That Glitters Mother's Day
Sunday, May 8 MC050805
10:30 a.m.–1:30 p.m.
Portrait Room, second floor
$100/mother and child; $45 each additional child

Museum educator Amy O'Donnell leads moms and kids on a tour of the glittering Morgan Memorial Hall of Gems and the special exhibition *Totems to Turquoise*. You'll see the Star of India sapphire and the Aurora Collection of diamonds and find out what makes these gems different from ordinary mineral samples. After the tour, enjoy a buffet lunch and try your hands at creating your own glamorous jewelry.

FREE HALL TOURS

Secret Stories of AMNH
Saturday, March 12 MT041105
Sunday, March 13 MT041305
4:00–5:30 p.m.
Free (Registration required)

Join Museum Tour Guide Christian Waters as he reveals secret stories of the Museum. From Carl Akeley, who once killed a leopard with his bare hands, to the heartbreaking story of a chimp raised as a human by a Museum curator, to Murph the Surf, who almost pulled off a robbery at the Museum that could have come straight out of Hollywood.

Please Don't Eat the Fish
Saturday, April 30 MT043005
Sunday, May 1 MT050105
4:00–5:30 p.m.
Free (Registration required)

Fish have adapted to a wide variety of habitats in the largest environment for life on our planet. Yet all around the world they have become endangered, some almost extinct. Travel through the Museum halls with Museum Tour Guide Linda Scalbom to learn their evolutionary history and how so many species have become so threatened.

PREVIOUSLY LISTED

Limited space may still be available for these programs.

400 Million Years on Six Legs
Tuesday, March 1 ML030105
7:00–8:30 p.m.
Kaufmann Theater
$12 ($15 Non-Members)

David A. Grimaldi, Curator in the Division of Invertebrate Zoology, discusses major events in insect evolution.

Roger Rosenblatt | Nigel Parry

An Evening with Roger Rosenblatt: "The Narrative Species"
Thursday, March 10 ML031005
7:00–8:30 p.m.
LeFrak Theater
$12 ($15 Non-Members)

Join Roger Rosenblatt for this talk about the power, prominence, significance, sanctity, and mystery of writing and storytelling in human experience.

Diamond Discoveries in Canada: New Frontiers in the Arctic
Thursday, March 24 ML032405
7:00–9:00 p.m.
Kaufmann Theater
$12 ($15 Non-Members)

This panel discussion will explore the geology and human impact of the very recent discovery of diamonds in Canada. A wine and cheese reception will follow the lecture, courtesy of the Canadian Consulate General, cosponsor of this event.

Descent: The Heroic Discovery of the Abyss
Thursday, April 21 ML042105
7:00–8:30 p.m.
Kaufmann Theater
$12 ($15 Non-Members)

Brad Matsen discusses his latest book, in which he recounts the 1930s ocean explorations of Otis Barton and William Beebe that laid the foundation for today's understanding of the ocean's complexities.

2005 Isaac Asimov Memorial Debate
The Enigma of Alien Solar Systems

Wednesday, March 30 HL033005
7:30 p.m.
LeFrak Theater
$12 ($14 Non-Members)

Before planets around stars other than our Sun were first discovered nearly a decade ago, many scientists expected alien solar systems to resemble our own, with small rocky planets close to their stars and large gaseous planets farther away. But what we've found instead are predominately Jupiter-sized or larger planets as close to their host stars, or closer, as tiny Mercury is from our Sun. These systems force us to question whether our own solar system is the rule or the exception.

Join Neil deGrasse Tyson, Frederick P. Rose Director of the Hayden Planetarium, and this panel of experts in planetary science as they discuss why our solar system looks the way it does and why others we've detected look so different.

Fritz Benedict, University of Texas, long-time observer of planetary systems

Paul Butler, Carnegie Institution of Washington, codiscoverer of more than two-thirds all known exoplanets

Peter Goldreich, California Institute of Technology, theorist with expertise on the formation of planets, asteroids, and comets

Scott Tremaine, Princeton University, expert on the gravitational interactions between a star and its planets

Margaret Turnbull, Carnegie Institution of Washington, planet hunter and expert on habitable zones around stars

The late Dr. Isaac Asimov, one of the most prolific and influentiol outhors of our time, was a dear friend ond supporter of the Americon Museum of Natural History. In his memory, the Hoyden Planetarium is honored to host the annuol Isaac Asimov Memorial Debate—a panel series, generously endowed by relatives, friends, and admirers of Isooc Asimov and his work. The Isaac Asimov Memoriol Ponel series brings the finest minds in the world to the Museum each year to debate pressing questions on the frontier of scientific discovery. Proceeds from ticket soles of the Isooc Asimov Memorial Debates benefit the scientific ond educational programs of the Hayden Plonetorium.

James Lui

The Center for Biodiversity and Conservation's Tenth Annual Spring Symposium

New Currents in Conserving Freshwater Systems

Thursday and Friday,
April 7 and 8 BIFRESHW
8:30 a.m.–6:00 p.m.
Kaufmann Theater
$125 Members and senior citizens
($150 Non-Members; $50 students)

Freshwater systems—lakes and ponds, rivers and streams, reservoirs, wetlands, and groundwater—are essential for our survival. In addition to providing goods and services such as drinking water, energy, recreation, food, and nutrient cycling, freshwater systems support an immense variety of life. Despite their importance and decades of protection efforts, freshwater species and habitats are being lost or degraded at an alarming rate. Increased demands from industrial production and agriculture, introduced species (for example, the zebra mussel), and continuing alteration in the form of dams and canals are primary causes. There is an urgent need for the development and application of innovative new approaches to freshwater conservation, and for the sharing of success stories.

In April 2005 the American Museum of Natural History will host a forum for scientists and conservation practitioners to highlight recent successful initiatives in freshwater conservation, and to discuss how and where these cutting-edge ideas and tools might be implemented. The symposium will showcase projects that not only integrate scientific fields, but also link science with other disciplines. This cross-disciplinary integration will generate a fertile environment for discussing the future of freshwater conservation. *New Currents* is geared toward a professional audience, and interested members of the public are encouraged to attend. For more information and to register, please visit http://cbc.amnh.org/symposia/freshwater/index.html.

New Currents in Conserving Freshwater Systems *is sponsored by the Center for Biodiversity and Conservotion (CBC), in collaboration with the World Wildlife Fund, U.S. Fish & Wildlife Service, and Nationol Pork Service. Funding is provided Daniel and Sheryl Tishman and by the Notionol Oceonic and Atmospheric Administration. Additionol support is provided by the American Society of Ichthyologists ond Herpetologists, The Nature Conservancy, and the Americon Fisheries Society.*

Giving City Kids an "Urban Advantage"

More than 150 8th graders from every borough in New York City gathered at the American Museum of Natural History on Friday, December 3, to launch an unprecedented model science education program that could reach all New York City 8th-grade teachers and over 70,000 students—the entire 8th-grade population—within three years.

The students are part of the first classes to participate in Urban Advantage: 8th Grade Exit Project Initiative, a program officially announced by the Speaker of the New York City Council, the New York City Department of Education, the New York City Department of Cultural Affairs, and seven of the City's greatest science-rich institutions.

Urban Advantage connects teachers and students with the excitement of scientific discovery. It is a comprehensive, integrated program of professional development, class and individual visits, and resources to help students pursue investigations and complete their science exit projects, a state-mandated requirement for admission into high school. Urban Advantage guides teachers and students on how to use the incomparable science resources and expertise of seven New York

Gifford Miller and his son examine a plant. | D. Finnin/AMNH

institutions: the American Museum of Natural History, which spearheaded and also administers the initiative, Brooklyn Botanic Garden, New York Botanical Garden, New York Hall of Science, Queens Botanical Garden, Staten Island Zoological Society, and the Wildlife Conservation Society's Bronx Zoo.

In the first year, the program will benefit approximately 5,000 8th-grade students and 60 teachers from 30 schools in New York City. Teachers, students, and administrators will be given "science passports" so they can return on their own to the participating institutions. Students will be encouraged to come back with a family member and thus introduce even more New Yorkers to the greatest science resources the City has to offer.

Urban Advantage was developed with the assistance of the United Federation of Teachers, the Professional Staff Congress, and the City University of New York.

The program has the following elements:

- **Extensive professional development for 8th-grade teachers**—60 hours of training at participating institutions—covering science content, pedagogy, and using the resources of museums, zoos, and gardens to prepare their students.
- **Resources for each school** including scientific equipment, videos, software, books, and curriculum, as well as basic lab supplies for each student.
- **"Science passports" providing free admission to the seven institutions for teachers, students, and administrators**, and required class field trips and individual visits.

"This exciting initiative connects directly with the heart and mission of the Museum—education and research—in a way that stimulates wonder, curiosity, and a sense of competence, the true gateways to learning," said Ellen V. Futter, President of the American Museum of Natural History.

Also speaking at the launch event were Gifford Miller, Speaker of the City Council; Carmen Farina, Deputy Chancellor, NYC Department of Education; Kate D. Levin, Commissioner, NYC Department of Cultural Affairs; and other Council members and representatives from the other partner institutions.

After the remarks, the students enjoyed activities and artifacts, including a collection of seeds and plants from the Brooklyn Botanic Garden and a shy hedgehog and box turtle from the Staten Island Zoological Society.

Public support for the Urban Advantage program is provided by the City of New York, the New York City Council, and the Department of Education. Additional support for Urban Advantage has been provided to the American Museum of Natural History by a generous anonymous donor.

Eleven-year-old Blake Epstein and his classmates from IS 75 in Woodrow, Staten Island, examine a hedgehog from the Staten Island Zoo. | D. Finnin/AMNH

Special Events at the Museum

Eleventh Annual Family Party

Wednesday, October 20, 2004

Andrew and Catherine Sidamon-Eristoff and family | C. Chesek/AMNH

James and Whitney Fairchild, who chaired this event, with their san Jamie | C. Chesek/AMNH

Ruth Gottesman with her daughter Alice and grandchildren | R. Mickens/AMNH

Family Party Chair Kathryn Hearst with her two children | R. Mickens/AMNH

The Museum Ball

Wednesday, November 17, 2004

Chairman of the Museum's Baard af Trustees Lewis W. Bernard and his wife Jill

Patti Chambers, Frank Richardson, Museum President Ellen V. Futter, Museum Trustee Ray Chambers, and the Hanarable Kimba Wood

Museum Trustee Victor F. Ganzi during the live auctian

Museum Trustee Tam Brakaw at the auctian

Billy and Kate Lee Joel

Museum Trustee Raymond G. Chambers during the live auctian

Museum Ball Chair Sarah Jessica Parker and fashian designer Narcisa Rodriguez

Museum Trustee and Ball Chair David H. Kach during the live auctian

Museum Ball photos by D. Finnin/AMNH

Spring Is in the Air!

gs in a Box" 3-D Puzzle

See details below for our special Easter offer!

Garden Activity Kit

Bug Lover's Fun-Filled Basket

op into spring with our very own "Bugs in a Box" puzzle full of fun facts, construct our very own garden, or check out our spring bug lover's basket. Receive a FREE cuddly bunny with any purchase of $50 or more (an $8 value). A portion of e proceeds supports the Museum's scientific and educational programs.

o place an order call: 1-800-671-7035

AMERICAN MUSEUM of NATURAL HISTORY

WWW.AMNH.ORG

General Information

HOURS

Museum: Daily, 10:00 a.m.–5:45 p.m.
The Rose Center remains open until 8:45 p.m. on Friday. The Museum is closed Thanksgiving and Christmas.
Space Show: Every half hour, Sunday–Thursday and Saturday, 10:30 a.m.–4:30 p.m., Friday, 10:30 a.m.–7:00 p.m.
Research Library: Tuesday–Thursday, 2:00–5:30 p.m.
Hours are subject to change.

ENTRANCES

During Museum hours, visitors may enter through the subway (lower level), Central Park West at 79th Street (second floor), and the Rose Center/81st Street entrances. The 77th Street and Weston Pavilion/Columbus Avenue entrances are closed until further notice.

TRANSPORTATION AND PARKING

Subway: B (weekdays) or C to 81st Street; 1 or 9 to 79th Street
Bus: M7, M10, M11, or M104 to 79th Street; M79 to Central Park West
Parking Garage: Open daily, 8:00 a.m.–11:00 p.m.; enter from West 81st Street. Members receive a discounted rate of $10 if entering after 4:00 p.m. To receive this rate, you must have your parking ticket validated at the Security Desk (first floor, Central Park West entrance). For more information, call 212-313-7278.

FOOD SERVICE

Museum Food Court: Daily, 11:00 a.m.–4:45 p.m. (*lower level*)
Northwest/Southwest Café on 4: Saturday and Sunday, 11:00 a.m.–4:45 p.m (*fourth floor*)
Café 77: Saturday and Sunday, 11:00 a.m.–4:45 p.m (*first floor*)
Hours are subject to change.

MUSEUM SHOP

The following Museum Shops are open during regular Museum hours:
Main Shop (*first and second floors*)
Dinostore (*fourth floor*)
Planetarium Shop (*Rose Center, lower level*)
Satellite Shop (*Rose Center, first floor*)
Butterfly Shop (*second floor*)
Totems to Turquoise: The Shop (*third floor*)

PHONE NUMBERS

Museum Information	212-769-5100
Membership Office	212-769-5606
Planetarium Information	212-769-5900
Member Birthday Parties	212-769-5606
Education	212-769-5310
Planned Giving Office	212-769-5119
Patrons Circle	212-769-5153
Discovery Tours	212-769-5700
Central Reservations	212-769-5200
Development	212-769-5151
Museum Shop	800-671-7035
Library Services	212-769-5400
Communications	212-769-5800
Volunteer Office	212-769-5566
Natural History Magazine	646-356-6500
Web Site	www.amnh.org

AMNH eNotes delivers the latest information on Museum programs and events to you via email. Visit www.amnh.org to sign up today!

AMERICAN MUSEUM OF NATURAL HISTORY

Rotunda.
American Museum of Natural History
Received on: 02-23-05

Ancient

Please join us for a Members' Preview
of this spectacular new exhibition
on Friday, May 13, 2005, from 4:00 to 8:30 p.m.

Please RSVP to the Membership Office at 212-769-5606.

Membership Department
Central Park West at 79th Street
New York, New York 10024-5192
www.amnh.org

rotunda

OL. 30 NO. 3 MAY/JUNE 2005

MEMBERS' NEWSLETTER

H70
J52
5
30
o. 3
ay-Jun
005

AMERICAN MUSEUM OF NATURAL HISTORY

Museum Notes

MEMBERS' BUFFET

Friday, May 13
Three seatings: 5:00, 6:30, or 8:00 p.m.
$45 Members; $18 Members' children under 12

In conjunction with the exhibition *Dinosaurs: Ancient Fossils, New Discoveries*, Restaurant Associates offers Members a buffet of regional foods from northeastern China's Liaoning Province, the site of many recent fossil discoveries and of an ancient forest modeled in a walk-through diorama in the exhibition. Executive Chef Billy Hamblin will prepare a menu that includes Mongolian barbecue–style grilled lamb, steamed bean curd stuffed with pork and spiced vegetables, shrimp-stuffed lychees, a stir-fry station using regional ingredients, and much more. Wine and beers from China will also be available.

Space is limited; reserve now by calling 212-769-5200.

CURRENTLY ON VIEW

Totems to Turquoise: Native North American Jewelry Arts of the Northwest and Southwest

Through July 10, 2005
Gallery 3

This groundbreaking exhibition celebrates the beauty, power, and symbolism of the magnificent tradition of Native American arts, examining techniques, materials, and styles that have evolved over the past century as Native American jewelers have transformed their traditional craft into a vital form of cultural and artistic expression.

Cover: *A life-size cast of* T. rex *is just one of the many imposing models on display in the groundbreaking new exhibition,* Dinosaurs: Ancient Fossils, New Discoveries. | D. Finnin/AMNH

The Butterfly Conservatory: Tropical Butterflies Alive in Winter

Through May 30, 2005
Whitney Memorial Hall of Oceanic Birds

Now in its seventh year, this popular exhibition once again includes more than 500 live, free-flying tropical butterflies. Visitors can mingle with the butterflies and learn about the butterfly life cycle, defense mechanisms, evolution, and conservation.

Admission is by timed entry only. Tickets are $9.50 for Members and $5.50 for Members' children.

Sunscapes

Opens April 2, 2005
IMAX® Corridor

Special optical systems and detectors capture fiery images of the Sun's atmosphere. This exhibition displays the most dramatic of these images.

Exploring Bolivia's Biodiversity

Through August 8, 2005
Akeley Gallery

These vibrant photographs portray life and culture in Bolivia's varied geography.

This exhibition is made possible by the generosity of the Arthur Ross Foundation.

Vital Variety: A Visual Celebration of Invertebrate Biodiversity

Ongoing
IMAX® Gallery

Beautiful close-up photographs highlight the importance of the immense diversity of invertebrates and their critical role in the survival of humankind.

PLANETARIUM SHOWS

SonicVision

Fridays and Saturdays, 7:30, 8:30, and 9:30 p.m.

SonicVision is a trip out of this world and into the minds of the universe's most creative digital animators, set to a soundtrack of today's coolest music.

Presented in association with MTV2 and in collaboration with renowned artist Moby.

SonicVision *is made possible by generous sponsorship and technology support from Sun Microsystems, Inc.*

Potatoes originated in the Andes, and thousands of years of cultivation have yielded more than 4,000 varieties with a wide range of colors, shapes, and sizes. © V. Sanchez Perez/Bolivian Viceministry of Tourism

The Search for Life: Are We Alone?

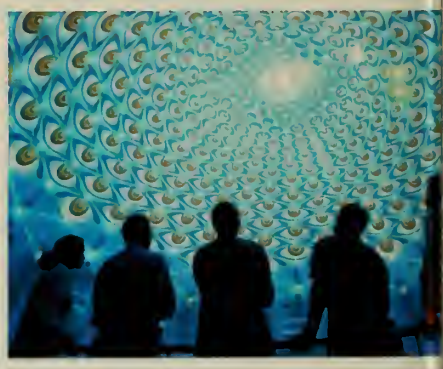
Journey from the lightless depths of Earth's oceans to newly discovered planets on a quest for worlds that might support life.

The Search for Life: Are We Alone? *is made possible through the generous support of Swiss Re.*

Passport to the Universe

The original Hayden Planetarium Space Show, narrated by Tom Hanks, is back by popular demand!

The Space Shows were developed by the American Museum of Natural History in collaboration with the National Aeronautics and Space Administration (NASA). Written by Ann Druyan and Steve Soter. Music by Stephen Endelman.



D. Finnin/AMNH

IMAX® MOVIES

Samuel J. and Ethel LeFrak Theater
Call 212-769-5100 for showtimes.

Jane Goodall's Wild Chimpanzees

This breathtaking film explores Dr. Jane Goodall's legendary work with the wild chimpanzees of Tanzania's Gombe Stream National Park. Viewers take an extraordinary trip into the realm of our closest animal relatives.

Vikings: Journey to New Worlds

Discover the historical and technological achievements of this legendary society of seafaring explorers. Shot on location in Iceland, Greenland, and Newfoundland, this cinematic adventure brings the Vikings' past to life.

A stunning Icelandic waterfall in the large-format film Vikings | © Sky High Entertainment

AND DON'T MISS...

AMNH Birthday Parties

Calling all would-be astronauts: get ready for an exciting galactic adventure in the **Cosmic Blast-Off** party! The birthday child pilots the party as Astronaut-in-Command and leads the way to the Space Show and tour of the Rose Center to learn more about the universe we call home.

Celebrate your child's birthday with one of four adventurous parties:

"Retro Rocket" cake | Partymakers

Dinosaur Discoveries, Safari Adventure, Underwater Treasures, or **Cosmic Blast-Off**. The birthday child is the lead scientist in charge of his or her very own expedition.

Parties are tailored for children ages 4 and up and are available seven days a week as a benefit to Contributor and higher-level Members only. For more information and to request a date, see our online brochure at www.partymakers.com or call Linda Kaye's Partymakers at 212-288-7112.

MUSEUM SHOP EVENTS

To learn about more weekend activities in the Museum Shop, visit www.amnh.org.

New! Sunday Storytime for Tots

Sundays, 11:00–11:30 a.m.
Main Shop
Ages 3 and up

Let us entertain your kids the old-fashioned way! Our cheerful staff will read popular children's stories in front of the Main Shop's first-floor rock wall.

DINOSAURS: See What's in Store...

How Do Dinosaurs Say Goodnight?

Saturday, May 21

Meet author Jane Yolen in the Dino-store for a reading about a dinosaur family's bedtime habits. A book signing follows.

Wired: Dino Sculptures

Saturday and Sunday, June 4 and 5

Join artist David Greenberg in the *Dinosaurs* exhibition as he creates wire sculptures of dinosaurs right in front of your eyes!

Dinosaur Tattoos

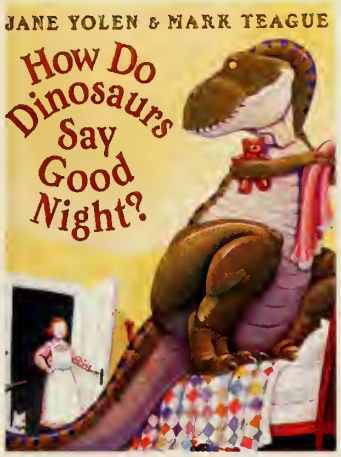
Saturday and Sunday, June 11 and 12

Visit the Dinosaurs Exhibition Shop for free tattoos of your favorite dinosaurs.

I Dig for Dinosaurs

Saturday and Sunday, June 18 and 19

In the Dinostore, dig through Dinostone rock to unearth replica dinosaur bones.



rotunda

ISSN 0194-6110
USPS Permit #472-650
Vol. 30, No. 3, May/June 2005

Lewis W. Bernard, *Chairman*
Ellen V. Futter, *President*
Lynn DeBow, *Senior Vice President for Development and Membership*
Rosemary Caulk, *Director of Membership*

Rotunda is published bimonthly, except for a combined issue in July/August/September and a single issue in December, by the Membership Office of the American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192. Phone: 212-769-5606. Web address: www.amnh.org. Museum membership of $55 per year and higher includes a subscription to *Rotunda*.

©2004 American Museum of Natural History.
Periodical postage paid at New York, NY, and at additional mailing offices. Postmaster: Please send address changes to *Rotunda*, Membership Office, AMNH, at the above address. Printed in the USA.

Exhibition Sheds New Light on Old Bones

A model of Microraptor gui *appears to fly.* | R. Mickens/AMNH

Fantastic images of dinosaurs have captivated the public's imagination for more than 150 years, from the bulky *Iguanodon* models created by Waterhouse Hawkins in 1853 to the computer animated *T. rex* charging through *Jurassic Park*. On May 14, 2005, the American Museum of Natural History presents the next step in our understanding of these great beasts with the opening of the groundbreaking exhibition *Dinosaurs: Ancient Fossils, New Discoveries*. On view through January 8, 2006, the exhibition reveals how current thinking about dinosaur biology has changed dramatically over the past two decades and highlights ongoing cutting-edge research by Museum scientists and other leading paleontologists around the world. *Dinosaurs* presents the most up-to-date look at how scientists are reinterpreting the mysteries of dinosaurs—from their appearance and behavior to the hotly debated theories of their extinction.

"*Dinosaurs* presents us with an ideal opportunity to expand upon many of the dinosaur lifestyle topics that we introduced in our renovated fossil halls on the Museum's fourth floor," says Ellen V. Futter, President of the American Museum of Natural History. "Once again the Museum is on the leading edge of presenting science to the public as we update them on the latest dinosaur research. After visitors see this exhibition, they will never think of dinosaurs in the same way again."

Dinosaurs features a wide range of fossil specimens and casts, including a full-size cast of a *T. rex* and numerous recently discovered fossils of well-known prehistoric animals including *Gorgosaurus*, *Triceratops*, and *Protoceratops*. An enormous immersive diorama depicting the rich diversity of the Mesozoic forest in China—the most detailed re-creation of a prehistoric environment ever attempted—will also be featured. The Museum is developing several interactive computer simulations and animations, as well as a number of videos offering behind-the-scenes glimpses of fieldwork and discussions among leading scientists currently investigating the mysteries of dinosaur biology.

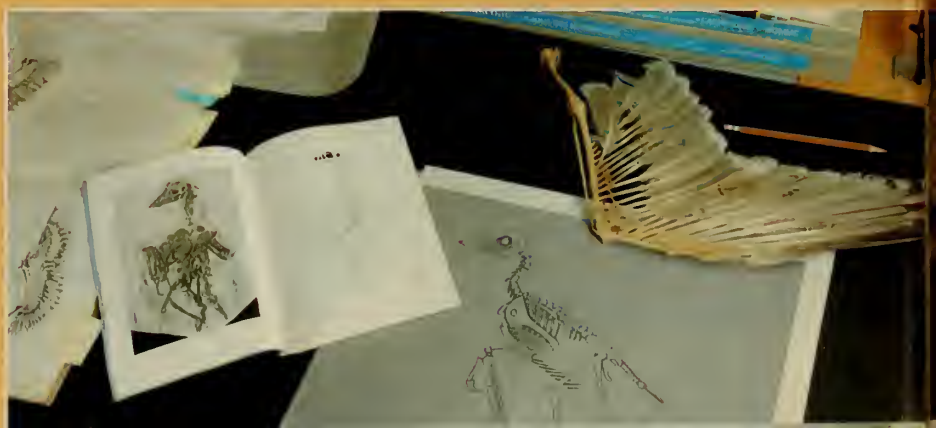
Dinosaurs: Ancient Fossils, New Discoveries is organized by the American Museum of Natural History in collaboration with the following institutions to which the exhibition will travel after it closes in New York: the Houston Museum of Natural Science (March 3–July 30, 2006); the California Academy of Sciences, San Francisco (September 15, 2006–February 4, 2007); The Field Museum, Chicago (March 30–September 3, 2007); and the North Carolina State Museum of Natural Sciences, Raleigh (October 26, 2007–July 5, 2008).

"This exhibition illustrates how scientists are using new ideas, new discoveries, and new technologies to revolutionize our understanding of dinosaurs," says Mark A. Norell, curator of *Dinosaurs* and Curator and Chairman of the Division of Paleontology. "Our work reaches across many disciplines involving paleontologists, biomechanical engineers, paleobotanists, and others to showcase how we go about reconstructing the mysterious life of dinosaurs."

The exhibition is divided into several major sections:

Introduction: By viewing graphics and CT scans, visitors will see how the fossil of *Bambiraptor feinbergi*, the best-preserved and most complete dromaeosaur yet found in North America, provides

An early study of dinosaur skeletal structure | C. Chesek/AMNH



new evidence for the evolutionary links between birds and dinosaurs.

How Dinosaurs Moved: In this section, the latest biomechanical studies on dinosaur movement spring to life. Highlights include:

- A stunning 60-foot-long model of an *Apatosaurus* skeleton—stretching across the center of the exhibition—based on computer drawings and made of chrome and geometric arcs.
- A full-size cast skeleton of a *T. rex* standing in a dynamic pose and bearing down on visitors below, paired with a six-foot-long mechanical *T. rex* skeleton that illustrates the typical speed of a rampaging tyrannosaur.

This gleaming model of an Apatosaurus *skeleton is a 3D realization of computerized biomechanical studies.* | D. Finnin/AMNH

The Liaoning Forest: Visitors can stroll back in time through a 700-square-foot diorama depicting a 130-million-year-old forest that existed in what is now Liaoning, China, a province that has yielded a rich diversity of well-preserved specimens. This re-created forest is populated with relatives of some modern trees and more than 35 different species of scientifically accurate, fleshed-out models of dinosaurs, reptiles, early birds, insects, and mammals.

How Dinosaurs Behaved: This section demonstrates how scientists use new approaches and technologies to unlock the secrets of dinosaur behavior.

A model of Dilong paradoxus, *a primitive feathered tyrannosaur.* | R. Mickens/AMNH

Highlights include:

- A 15-by-10-foot re-creation of the famous Davenport Ranch Trackway, a collection of sauropod dinosaur prints unearthed in Texas by Museum scientists in the 1930s, which shows visitors how recent analysis has uncovered new information on dinosaur herding behavior. Special lighting displays retrace the steps of individual dinosaurs across the face of the trackway.
- A large "trophy wall" of mounted dinosaur skulls that illustrates the latest theories on the purposes of the unusual horns, frills, crests, and domes found on many dinosaur skulls. This section highlights the full range of these mysterious structures, investigating whether they were used for defense, mate recognition, or sexual selection.

Extinction: In this section, visitors can explore the hard evidence for theories on the factors that ended the Age of Dinosaurs, including asteroid impact, global climate change, and massive volcanic eruptions. A newly discovered slab of sedimentary rock that shows a thin layer of iridium—a metallic element that marks the boundary between the Cretaceous and Tertiary periods—is believed to represent the remnants of an asteroid or comet that caused the extinction of 85 percent of all species on Earth about 65 million years ago.

The exhibition ends with an intriguing conclusion—dinosaurs still walk among us, and more often fly above us, as birds.

Dinosaurs: Ancient Fossils, New Discoveries *and its accompanying education and public programs are made possible by* ***Bank of America.***

Major funding has also been provided by the Lila Wallace-Reader's Digest Endowment Fund.

PEOPLE AT THE AMNH

Mark Norell

Mark A. Norell

Chairman and Curator
Division of Paleontology

Feathered dinosaurs, nesting oviraptors, theropod embryos. These are some of the remarkable discoveries of Mark A. Norell, who studies some of the most intriguing and revealing dinosaur fossils from the world's richest fossil beds. Dr. Norell specializes in research on the evolutionary relationships among small meat-eating dinosaurs and present-day birds. He is one of the team leaders of the joint AMNH-Mongolian Academy of Sciences expeditions to the Gobi Desert of Mongolia, launched in 1990 and continuing annually. These expeditions have yielded extraordinarily well-preserved fossils and, in 1993, led to the discovery of Ukhaa Tolgod, the world's richest vertebrate fossil site. Dr. Norell has played a key role in many significant findings, including *Mononykus*, the first embryo of a meat-eating dinosaur ever uncovered, an *Oviraptor* found nesting on a brood of eggs, and two 120-million-year-old dinosaur species, both of which show unequivocal evidence of true feathers. "The discovery of feathered dinosaurs, and more recently of protofeathers in a primitive tyrannosaur, provides strong evidence of the shared evolutionary features among nonavian dinosaurs and living birds," Dr. Norell said.

Members' Programs

Programs are available to Members only, unless a non-Member's price is given.

Courtesy Chris Beard

LECTURE

Searching for Our Distant Ancestors in Asia

Thursday, June 2 ML060205
7:00–8:30 p.m.
Kaufmann Theater
$12 ($15 Non-Members)

Chris Beard, Curator and Head of the Section of Vertebrate Paleontology at the Carnegie Museum of Natural History, discusses how his discoveries of 45-million-year-old fossils in China shed new light on primate evolution. Spanning four continents and more than two decades, Beard's provocative research indicates that the common ancestor of monkeys, apes, and humans evolved in Asia rather than Africa millions of years earlier than previously thought. Beard makes this story accessible in his recently published *Hunt for the Dawn Monkey*.

FAMILY & CHILDREN'S PROGRAMS

Melanie in Manhattan

Sunday, June 12 MC061205
2:00–3:30 p.m.
Linder Theater, first floor
Recommended for children ages 8–12
$15 adult and child; $10 each additional child ($20; $12 Non-Members)

Author Carol Weston reads from her latest book in the Melanie Martin series, *Melanie in Manhattan*. Weston will share scenes that take place among the American Museum of Natural History's dinosaurs and under the stars of the Hayden Planetarium. Also, she will discuss how ideas become books, how covers are chosen, and the importance of rewriting. Weston is the "Dear Carol" columnist for *Girls' Life* magazine.

Father's Day Paleontology Expedition

Sunday, June 19 MC061905
10:30 a.m.–2:00 p.m.
Ages 4–9, each child with one adult
$100/pair; $45 each additional child

Spend Father's Day together exploring the world of dinosaurs. Museum educator Arthur Horan will guide dads and kids through the fossil halls and teach procedures for fossil preparation. Learn to excavate bones and eggs from a buried nest and create a replica of a favorite fossil. "Explorers" will record their observations and make sketches in special Museum expedition journals. After lunch, participants will be able to compare notes and replicas. Cost includes all materials and lunch.

EXPEDITIONS

On the Trail of the Earliest Jurassic Dinosaurs

New date: Saturday, June 11 MO061105
9:00 a.m.–5:00 p.m.
$75

Over 200 million years ago, dinosaurs left extensive trackways in what is now northern New Jersey. A huge rift valley had formed as the continents that are now North America and Africa began to separate. Theropods hunted herds of ornithopods, and their footprints can still be seen in shale on both sides of the Atlantic. Join Museum paleoentomologist Paul Nascimbene for a visit to two sites where the trackways of dinosaurs and other ancient creatures can be found. Cost includes transportation by private coach.

New Haven Harbor Sail

Saturday, June 25 MO062505
8:00 a.m.–7:00 p.m.
$95

Explore Connecticut's coastal ecosystems with geologist Sidney Horenstein. Then, a sail on Long Island Sound aboard the *S/V Quinnipiack*, a two-masted, gaff-rigged centerboard schooner, will provide a fascinating survey of local maritime history, coastal geology, species abundance and diversity, and land-use planning. We will also examine how natural and man-made environmental changes affect life on the Sound. Cost includes transportation by private coach.

Clearwater Sail

Sunday, June 26 MO062605
1:30–5:00 p.m.
$55

Step back in time and sail the Hudson River and New York Harbor aboard the Clearwater, a replica of the original Husdson River sloops of the 18th and 19th centuries. Named in 2004 to the National Register of Historic Places, "America's Environmental Flagship" carries a clear message of the potential beauty and wealth of our region's often neglected waterways. The crew will discuss the ecology of the river and how it can be made cleaner, healthier, and more productive. Limited space is available, so please reserve early.

For tickets, call 212-769-5200, Monday–Friday, 9:00 a.m.–5:00 p.m., or visit www.amnh.org. Please have ready your credit card, your Membership number, and the program code. All Members' programs require advance registration.

Museum of the Earth at the Paleontological Research Institution | Courtesy PRI

Fossil Weekend in Ithaca

MO060405
Saturday, June 4, 8:00 a.m.–
Sunday, June 5, 6:00 p.m.
$245 double occupancy
$75 additional for single occupancy

Travel through geological time with geologist Sidney Horenstein on a weekend journey to the Paleontological Research Institution (PRI) in Ithaca, New York. Cornell University paleontologist John Chiment will host this exploration of the PRI's world-class collections. The next day, participants will prospect at two sites that feature Middle Devonian shale and sandstone formations from a tropical sea that once encompassed most of New York State. Diagrams will help identify the invertebrate fossils found there. Future fossil hunters should bring their own hammers, chisels, and collection bags.

Cost includes transportation by private coach, overnight stay at the Holiday Inn Ithaca Downtown, breakfast on Sunday, and all lectures, admissions, and gratuities.

New York's Central Pine Barrens

Wednesday, July 13 MO071305
8:00 a.m.–6:00 p.m.
$75

Join this trip to Upton Ecological and Research Reserve. These 5,200 acres protect endangered reptiles and amphibians. Participants will hear Timothy M. Green, the Cultural and Natural Resource Manager at Brookhaven National Laboratory (BNL), discuss current research projects at Upton and BNL and will visit the science facilities in the BNL complex. Cost includes transportation by private coach.

Gull Island Research Project

Tuesday, July 19 MO071905
8:00 a.m.–6:00 p.m.
$125

Great Gull Island, a Museum research station in Long Island Sound, is the site of ongoing research on the endangered roseate tern and the threatened common tern. Take advantage of this rare opportunity for a trip to the island, which is usually open only to researchers and scientists. Led by Helen Hays, a Museum ornithologist who has been studying birds for over 30 years, participants will watch hatching chicks, track nests, and analyze the colonies to see how productive they are during the year. Cost includes transportation by private coach and chartered boat. (This trip is limited to 25 participants.)

WALKING TOUR

Old New York

Tuesday, July 12 MW071205
Thursday, July 14 MW071405
6:00–8:30 p.m.
$22

Join geologist Sidney Horenstein to trace the original shoreline and topography of lower Manhattan. From the Old Customs House and beyond, learn about the geological history and how it was altered by the subsequent growth of New York City.

The Hudson River sloop Clearwater | Photo by Steve Stanne. © Hudson River Sloop Clearwater

HALL TOURS

Echoes of the Past

Saturday, June 18 MT061805
1:00 and 3:00 p.m.
Free (Registration required)

Museum Tour Guide Bill Hinchman leads a tour through the halls of the Museum focusing on its history and earliest collections. Learn the stories behind the exhibits, from the Irish elk diorama to the 34-ton meteorite Ahnighito to the landmark Akeley Hall of African Mammals and more.

Weddings around the World

Saturday, June 4 MT060405
Sunday, June 12 MT061205
4:00–5:30 p.m.
Free (Registration required)

Museum Tour Guides Judith Freeman and Donna Walcavage will explore the customs and ceremonies involved in marriage rituals around the world of the past and present.

PREVIOUSLY LISTED

Limited space may still be available for these programs.

Spring Fever: Birdwatching in Prospect Park

Saturday, May 7 MW050705
8:00 a.m.–4:00 p.m.
$40

Designed by architects Frederick Law Olmstead and Calvert Vaux, the 526-acre Prospect Park is a green oasis in the middle of Brooklyn. Join Museum ornithologist Paul Sweet to explore the Park's birding hotspots.

Hudson River Seining

Saturday, May 14 MO051404
9:00 a.m.–5:00 p.m.
$75

Learn about collecting methods and the fish diversity of the lower Hudson River with Robert Schelly, Department of Ichthyology, on this excursion to Croton Point. Fee includes cost of travel by private coach.

Members' Programs
(continued)

Spuyten Duyvil and Marble Hill
Monday, May 23 MW052305A
1:00–2:30 p.m.

Van Cortlandt Park
Monday, May 23 MW052305B
3:00–4:30 p.m.
$20 each; $35 for both

Join Sidney Horenstein for one or both of these walking tours in Riverdale, the Bronx.

All That Glitters Mother's Day
Sunday, May 8 MC050805
10:30 a.m.–1:30 p.m.
Portrait Room, second floor
$100/mother and child; $45 each additional child

Educator Amy O'Donnell leads moms and kids on a tour of the glittering Morgan Memorial Hall of Gems and the special exhibition *Totems to Turquoise*. After the tour, participants will enjoy a buffet lunch and try their hands at creating glamorous jewelry.

Inside Totems to Turquoise | D. Finnin/AMNH

Dinosaurs: Ancient Fossils, New Discoveries
Public Programs – To register, call 212-769-5200

DR. NEBULA'S LABORATORY

NEW! Dino Adventure
Sunday, June 26 RC062605
Saturday, July 23 RC072305
Kaufmann Theater
2:00–3:00 p.m.
For families with children ages 4 and up
$8 children; $10 adults

These interactive shows offer a fun encounter with science that the whole family will enjoy. Help Dr. Nebula's apprentice Scooter figure out the mysteries of natural phenomena. In her latest adventure, Scooter "digs" into prehistory to reveal the secrets of the dinosaurs.

SUMMER ADVENTURE CAMPS

New! Dinosaur Detectives
Tuesday–Thursday, June 28–30
(For children entering grades 2 or 3)
Monday–Friday, July 18–22
(For children entering grades 2 or 3)
Monday–Friday, July 25–29
(For children entering grades 4 or 5)
Five-day session: $400; three-day session: $300. For further information on these all-day camps, call 212-769-5758.

Kids study dinosaur tracks, build dinosaur models, and go behind the scenes of the Museum's special exhibition *Dinosaurs: Ancient Fossils, New Discoveries*.

PERFORMANCE

The Dinosaurs of Waterhouse Hawkins
Saturday, June 11
12:00 noon–1:00 p.m. EP061105A
2:00–3:00 p.m. EP061105B
Linder Theater
$8 children; $10 adults

Brian Selznick's performance magically depicts the life of the 19th-century artist who built the world's first life-size models of dinosaurs.

DINOSAUR SUNDAYS
$25 each; $65 for all three

These workshops present the latest discoveries in paleontology. Take all three courses and earn a certificate.

Dinosaur Trackways
Sunday, June 5
11:00 a.m.–12:30 p.m. EC060505A
(Ages 4–6, each child with one adult)
1:30–3:00 p.m. EC060505B
(Ages 7–10)

Sunday, July 10
11:00 a.m.–12:30 p.m. EC071005A
(Ages 4–6, each child with one adult)
1:30–3:00 p.m. EC071005B
(Ages 7–10)

Participants will learn what trackways can and can't reveal about the way dinosaurs lived.

Digging for Dinos
Sunday, June 12
11:00 a.m.–12:30 p.m. EC061205A
(Ages 4–6, each child with one adult)
1:30–3:00 p.m. EC061205B
(Ages 7–10)

Sunday, July 17
11:00 a.m.–12:30 p.m. EC071705A
(Ages 4–6, each child with one adult)
1:30–3:00 p.m. EC071705B
(Ages 7–10)

Children will become junior paleontologists and learn how scientists conduct fieldwork in their quest for fossils.

Build Your Own Dinosaur
Sunday, June 26
11:00 a.m.–12:30 p.m. EC062605A
(Ages 4–6, each child with one adult)
1:30–3:00 p.m. EC062605B
(Ages 7–10)

Sunday, July 24
11:00 a.m.–12:30 p.m. EC072405A
(Ages 4–6, each child with one adult)
1:30–3:00 p.m. EC072405A
(Ages 7–10)

The anatomical similarities between dinosaurs and birds come to life by constructing dinosaur models with chicken bones, wire, and glue!

Dinosaurs: Ancient Fossils, New Discoveries *and its accompanying education and public programs are made possible by* ***Bank of America***.

The New Challenge

On March 9, Museum President Ellen V. Futter and Board Chairman Lewis W. Bernard announced the launch of *The New Challenge: Meeting the Demands of Science and Society*.

This comprehensive fundraising campaign will seek to secure $850 million for a range of significant initiatives that will extend the Museum's scientific research and educational impact more broadly and deeply, strengthen both its intellectual and physical infrastructure, and ensure its financial strength and stability for generations to come. *The New Challenge* will enable the Museum to build on a platform of excellence in science and remain at the forefront in interpreting science, culture, and nature for a broad public.

The Museum's 77th Street façade | C. Chesek/AMNH

"The work of the Museum lies at the heart of many of science's most promising directions and society's most pressing needs," President Futter explained. "We will continue to learn more about the secrets of the gene, the biological world, the history and workings of Earth, the planets, and the universe than we can scarcely imagine today.

"The web of global cultural relationships becomes deeper each day and more complex," she continued, "and in the United States, we are in the midst of a crisis in science education which threatens our nation's security, competitiveness, and future success as a leader and contributing member of the world community. The initiatives embraced by *The New Challenge* represent the Museum's best answers to the demands of a complex society and the promise of 21st-century science."

The New Challenge's initiatives include: formalizing the Museum's long-standing tradition of graduate training; the establishment of a Center for World Cultures—a forum for research, outreach, and education that will address the cultural complexities of the 21st-century world; the development of a new research program in microbial biology within the Center for Biodiversity and Conservation; the creation of a major marine program within the Center for Biodiversity and Conservation; expanded educational programs and partnerships to address our nation's crisis in science education; the complete restoration of the historic "castle" façade on the 77th Street side of the facility; and renovation of selected halls that explore the nature and nuance of humanity and culture.

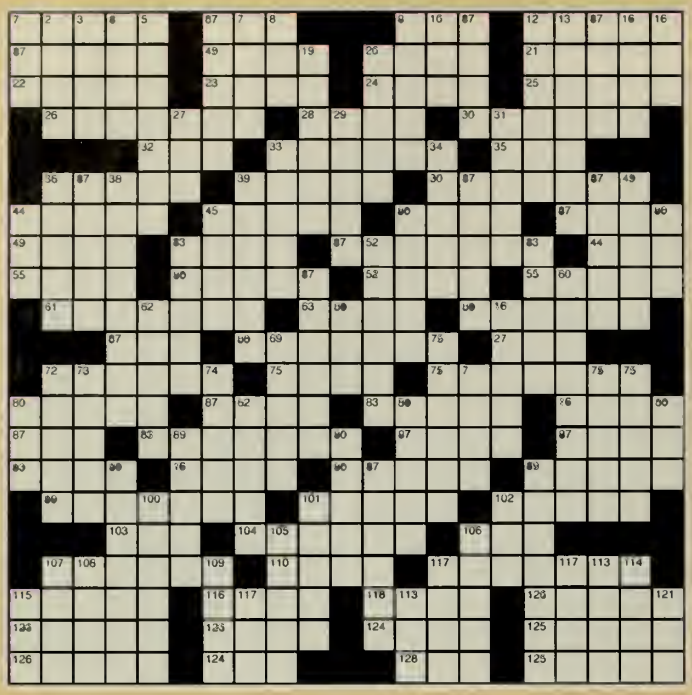
The Museum launches *The New Challenge* from a position of strength and prominence, the result of the partnership of visionary and generous donors who have provided critical support for the Museum's work over the years. President Futter also announced that over $444 million has been raised in gifts and pledges to date as part of *The New Challenge*, and she expressed the Museum's gratitude for the extraordinary generosity of so many partners who helped to create exciting momentum for this new fundraising effort and for their support of work that grows more meaningful with each passing year.

Meet The New Challenge

We invite our Members and the entire Museum community to join us in this urgent, ambitious, and important mission by supporting *The New Challenge*. Opportunities are available for donors at all levels to make a lasting impact on the Museum's vital work, including support for scientific research and curatorial activities, educational programs, exhibitions, capital needs such as hall renovations and collections management, as well as building the Museum's endowment. We hope that our most loyal friends—our Members—will choose to help the Museum meet *The New Challenge* to secure and strengthen this great institution for future generations.

If you would like more information about how to become involved, please contact Caralynn Sandorf, Senior Campaign Director, by phone at 212-769-5220, or by email at csandorf@amnh.org.

AMNH Crossword Puzzle *by Fred Piscop*



ACROSS

1. Origin of the coins on the Museum's selection of Tlingit armor
6. ___-mo replay
9. "Yoo-___!"
12. Hoofs it
17. Pavarotti, notably
18. Stereo forerunner
20. Architect commissioned to design the Museum's site on Manhattan Square
21. Farsi speaker
22. Out of whack
23. Prima donnas' problems
24. Word on Irish stamps
25. Forum language
26. Belfry's place
28. Audubon painting subject
30. Museum educational resource founded in 1997
32. Zero
33. Donor of the Bement collection
35. ___ Alamos, N. Mex.
36. Golf legend Ben
39. "Designing Women" star Delta
40. Most candid
44. Theodore of "The Sound of Music"
45. Tubular pasta
46. Infamous Star of India thief "Murph the ___"
47. In the thick of
49. Galway Bay's ___ Islands
50. Anthropologist largely responsible for Hall of Pacific Peoples treasures
51. Most slow-witted
54. Quarterback Manning
55. Taken-back auto
56. 1984 "Weird Al" Yankovic parody
58. Whoppers, of sorts
59. Meat promoted at a 1918 Museum black tie luncheon
61. Composer Shostakovich
63. Paid promotion: Abbr.
65. Gridiron great Gale
67. Altar phrase
68. Stains on silverware
71. Camera type, briefly
72. Parish leader
75. Pre-1917 autocrat
76. Catered gatherings
80. Raft wood
81. Tiny battery type
83. Safe havens
85. Unlikely to bite
87. ___ standstill
88. Creature depicted in diorama set near Akeley's burial spot
91. Dumpster emanation
92. Opposed to, in the sticks
93. The U.N.'s Kofi ___ Annan
95. Jack Benny catchword
96. Substance from which Museum scientists extracted 35-million-year-old termite DNA
98. Banded stone
99. Assent to a king
101. Mensa member
102. In the ___ (in person)
103. It's charged
104. Feathered Tyrannosour recently found by Museum scientists in China
106. Brit. reference work
107. ___-Sangha (rainforest recreated in Museum's Hall of Biodiversity)
110. Dennis Miller monologue, often
111. Leader of a 1921 expedition through the Gobi
115. Sporty Mazda
116. In vogue
118. Poor, as excuses go
120. Mountaineer's tool
122. Slapped the cuffs on
123. Goalie's wear
124. ___ Dozen (dinosaur eggs unearthed by 111-Across)
125. Coop youngster
126. Send to the Hill
127. Check out
128. "Go on ..."
129. Animal photographed and studied by Museum skeleton mounter S. Harmsted Chubb

DOWN

1. Windy City train initials
2. Garment edges
3. "What's ___ for me?"
4. Wine quality
5. Cental Park ___ (Museum's original home)
6. Primary sense used by butterflies
7. Stadium section
8. Lennon's lady
9. Tribe that created the canoe at the Museum's 77th Street entrance
10. Wilder's "___ Town"
11. Yoked pair
12. Akeley Hall background artist Perry ___
13. Amu Darya's outlet
14. Like the White Rabbit
15. Make bootees
16. Sloth or gluttony
19. Scientist who founded the Museum's Paleontology Department
20. Threshold
27. ATM user's need
29. Ticked off
31. Staff symbols
33. "Sic transit gloria ___"
34. "It's ___!" (quitter's comment)
36. Took on
37. Animal sought by the Chapin Congo Expedition of 1909-15
38. Institute for Comparative ___, founded by the Museum in 2001
39. "Scram!"
41. Newspapers, collectively
42. Campaign assault
43. Uses a plow
44. Mars or Milky Way
45. Bartlett or Seckel
46. Peevish states
48. Fizzle out
50. "Same here!"
52. "___ Madigan" (1967 film)
53. Choreographer Tharp
57. Of a foot bone
60. "___ of the Bounty" (book by Museum anthropologist Harry Shapiro)
62. Luggage clip-on
64. Paternity prover
66. "___ as I know ..."
69. In any way
70. ___ Planetarium (world's largest virtual reality simulator)
72. In disrepair
73. Tickle pink
74. Not as 95-Across
77. Dona ___ (1978 Sonia Braga role)
78. Shankar tunes
79. "Ali" star
80. Ewe's cry
82. Had a bug
84. Pulitzer-winning Edna Ferber novel
86. Prefix with ethyl
89. In the red
90. Burr, who dueled Hamilton
94. South ___ Hall (Museum's first major hall of animal habitat dioramas
97. The Yankees' #7
98. Spy ___ Ames
100. Voiced, in phonetics
101. ___ smokers (sulfide chimneys on display in Gottesman Hall of Planet Earth)
102. G-man or T-man
105. Maya Angelou's "Still ___"
106. Without letup
107. Part of an old phone
108. Western author Grey
109. Wile E. Coyote's supplier
111. "You said it!"
112. Canyon effect
113. "Witness" director Peter
114. Anatomical pouches
115. GI's dinner
117. What "that" ain't
119. Actress Gardner
121. Classic Jaguar

Solution in next issue

Summer Camp Gifts

Sea life basket

Keep your 7- to 12-year-old busy this summer with these fun themed baskets. Each basket includes a FREE gift tin, perfect for storing his or her new treasures.

Free shipping. Allow 7–10 days for delivery.

To place orders with our personal shopper, call 1-800-671-7035.

Space basket

AMERICAN MUSEUM OF NATURAL HISTORY

General Information

HOURS

Museum: Daily, 10:00 a.m.–5:45 p.m.
The Rose Center remains open until 8:45 p.m. on Friday. The Museum is closed Thanksgiving and Christmas.
Space Show: Every half hour, Sunday–Thursday and Saturday, 10:30 a.m.–4:30 p.m., Friday, 10:30 a.m.–7:00 p.m.
Research Library: Tuesday–Thursday, 2:00–5:30 p.m.
Hours are subject to change.

ENTRANCES

During Museum hours, visitors may enter through the subway (lower level), Central Park West at 79th Street (second floor), and the Rose Center/81st Street entrances. The 77th Street and Weston Pavilion/Columbus Avenue entrances are closed until further notice.

TRANSPORTATION AND PARKING

Subway: B (weekdays) or C to 81st Street; 1 or 9 to 79th Street
Bus: M7, M10, M11, or M104 to 79th Street; M79 to Central Park West
Parking Garage: Open daily, 8:00 a.m.–11:00 p.m.; enter from West 81st Street. Members receive a discounted rate of $10 if entering after 4:00 p.m. To receive this rate, you must have your parking ticket validated at the Security Desk (first floor, Central Park West entrance). For more information, call 212-313-7278.

FOOD SERVICE

Museum Food Court: Daily, 11:00 a.m.–4:45 p.m. (*lower level*)
Northwest/Southwest Café on 4: Saturday and Sunday, 11:00 a.m.–4:45 p.m (*fourth floor*)
Café 77: Saturday and Sunday, 11:00 a.m.–4:45 p.m (*first floor*)
Hours are subject to change.

MUSEUM SHOP

The following Museum Shops are open during regular Museum hours:
Main Shop (*first and second floors*)
Dinostore (*fourth floor*)
Planetarium Shop (*Rose Center, lower level*)
Satellite Shop (*Rose Center, first floor*)
Butterfly Shop (*second floor*)
Totems to Turquoise: The Shop (*third floor*)
Dinosaurs Exhibition Shop (*fourth floor*) Opens May 14

PHONE NUMBERS

Museum Information	212-769-5100
Membership Office	212-769-5606
Planetarium Information	212-769-5900
Member Birthday Parties	212-769-5606
Education	212-769-5310
Planned Giving Office	212-769-5119
Patrons Circle	212-769-5153
Discovery Tours	212-769-5700
Central Reservations	212-769-5200
Development	212-769-5151
Museum Shop	800-671-7035
Library Services	212-769-5400
Communications	212-769-5800
Volunteer Office	212-769-5566
Natural History Magazine	646-356-6500
Web Site	www.amnh.org

AMNH eNotes delivers the latest information on Museum programs and events to you via email. Visit www.amnh.org to sign up today!

AMERICAN MUSEUM OF NATURAL HISTORY

Rotunda.
American Museum of Natural History
Received on: 04-26-05

DI

Ancient Fos

Please join us for a Members' Preview of this spectacular new exhibition on Friday, May 13, 2005, from 4:00 to 8:30 p.m.

Please RSVP to the Membership Office at 212-769-5606.

Membership Department
Central Park West at 79th Street
New York, New York 10024-5192
www.amnh.org

rotunda

VOL. 30 NO. 4 JULY/AUGUST/SEPTEMBER 2005

MEMBERS' NEWSLETTER

QH70
.U52
N5
v. 30
no. 4
Jul-Sep
2005

AMERICAN MUSEUM OF NATURAL HISTORY

Museum Notes

A life-size cast of T. rex *on display in the exhibition* Dinosaurs. | D. Finnin/AMNH

CURRENTLY ON VIEW

Dinosaurs: Ancient Fossils, New Discoveries

Through January 8, 2006
Gallery 4

Stroll back in time through a Mesozoic forest and come face to face with the creatures that lived there. This groundbreaking exhibition reveals how current thinking about dinosaur biology has changed dramatically over the past two decades and presents the most up-to-date look at how scientists are reinterpreting many persistent and puzzling mysteries of dinosaurs—what they looked like, how they behaved, how they moved, and ultimately, why—or even if—they became extinct.

Dinosaurs: Ancient Fossils, New Discoveries *and its accompanying education and public programs are made possible by Bank of America.*

The exhibition is organized by the American Museum of Natural History, New York (www.amnh.org), in collaboration with the Houston Museum of Natural Science; California Academy of Sciences, San Francisco; The Field Museum, Chicago; and North Carolina Museum of Natural Sciences, Raleigh.

Major funding has also been provided by the Lila Wallace-Reader's Digest Endowment Fund.

Cover: Sinornithosaurus millenii, *a feathered dromaeosaur, is one of the many life-size models of dinosaurs on view in the spectacular new exhibition,* Dinosaurs. | R. Mickens/AMNH

LAST CHANCE

Totems to Turquoise: Native North American Jewelry Arts of the Northwest and Southwest

Through July 10, 2005
Gallery 3

This groundbreaking exhibition celebrates the beauty, power, and symbolism of the magnificent tradition of Native American arts, examining techniques, materials, and styles that have evolved over the past century as Native American jewelers have transformed their traditional craft into a vital form of cultural and artistic expression.

Sunscapes

Through September 5, 2005
IMAX Corridor

Special optical systems and detectors capture fiery images of the Sun's atmosphere. This exhibition displays the most dramatic of these images.

Itinerant healers of the Andes known as Kallawayas use some 1,000 different plant species to treat a wide variety of ailments. | Fernando Sorio/Bolivian Viceministry of Tourism

Exploring Bolivia's Biodiversity

Through August 8, 2005
Akeley Gallery

These vibrant photographs portray life and culture in Bolivia's varied geography.

This exhibition is made possible by the generosity of the Arthur Ross Foundation.

(top) Woman in the Moon pendant. Jim Hart (Haida). 2003. Private collection. | Photo by Kiyoshi Togashi; *(bottom) "Blessings" bracelet. Raymond Yazzie (Navajo). 2002–2003. Private collection.* | Photo by WindSong Studio

Vital Variety: A Visual Celebration of Invertebrate Biodiversity

Ongoing
IMAX Gallery

Beautiful close-up photographs highlight the importance of the immense diversity of invertebrates and their critical role in the survival of humankind.

PLANETARIUM SHOWS

SonicVision

Fridays and Saturdays, 7:30, 8:30, and 9:30 p.m.

SonicVision is a trip out of this world and into the minds of the universe's most creative digital animators, set to a soundtrack of today's coolest music.

Now, for a limited time only, bring a friend FREE to *SonicVision*. Coupons available at any Information Desk or at www.amnh.org.

Presented in association with MTV2 and in collaboration with renowned artist Moby.

SonicVision *is made possible by generous sponsorship and technology support from Sun Microsystems, Inc.*

The Search for Life: Are We Alone?

Journey from the lightless depths of Earth's oceans to newly discovered planets on a quest for worlds that might support life.

The Search for Life: Are We Alone? is made possible through the generous support of Swiss Re.

Passport to the Universe

The original Hayden Planetarium Space Show, narrated by Tom Hanks, is back by popular demand!

The Space Shows were developed by the American Museum of Natural History in collaboration with the National Aeronautics and Space Administration (NASA). Written by Ann Druyan and Steve Soter. Music by Stephen Endelman.

IMAX MOVIES

Samuel J. and Ethel LeFrak Theater

Visit www.amnh.org or call 212-769-5100 for films and showtimes.

IMAX films at the American Museum of Natural History are made possible by Con Edison.

James Lui

AND DON'T MISS...

Living with Nature: Consumer Choices for Children

Thursday, September 22
6:00 p.m.: Resource Fair, Hall of Northwest Coast Indians
7:30 p.m.: Panel Discussion, LeFrak Theater
Free (Registration recommended)

Learn ways to nurture meaningful values and environmental stewardship in children at this program with ideas for sustainable activities, toys, and holiday fun for kids. Featured speakers include child development specialist Louise Chawla; Juliet Schor, author of *Born to Buy: The Commercialized Child and the New Consumer Culture*; and Betsy Taylor, Founder and President of the Center for a New American Dream. The Center for Biodiversity and Conservation's Eleanor Sterling moderates. For details, visit http://cbc.amnh.org; to register, call 212-496-3423.

AMNH Birthday Parties

"The 'Party Professor' and leaders were all so friendly and nice. They entertained our children, guests, and the birthday girl very well. They were great! We had great fun!"

This year, your child's birthday party can make history—natural history! With four exciting party themes to choose from, **Cosmic Blast-off, Underwater Treasure, Dinosaur Discovery,** and **Safari Adventure,** your party is sure to be a big hit. The birthday child and guests will be taken on an unforgettable one-of-a-kind journey. And now, add an entertainer to any birthday adventure: Partymakers works with magicians, balloon artists, face painters, and musicians to make the birthday child feel extra special.

Parties are tailored for children ages 4 and up and are available seven days a week as a benefit to Contributor and higher-level Members only. For more information and to request a date, see our online brochure at www.partymakers.com or call Linda Kaye's Partymakers at 212-288-7112.

Host an Event at AMNH

At your next event, dine under a 94-foot blue whale, sip cocktails in the dinosaur halls, or dance among the planets. The Milstein Hall of Ocean Life offers one of the largest spaces in New York City for a seated dinner, and the Rose Center for Earth and Space can accommodate 1,500 guests for a stand-up reception. Spaces are available to Corporate Patrons and Patrons Circle Members. For information, please visit our Web site at www.amnh.org/hostanevent or call 212-769-5350.

D. Finnin/AMNH

Museum Shop to Launch Online

The Museum Shop is pleased to offer a spectacular array of products inspired by the new exhibition, *Dinosaurs: Ancient Fossils, New Discoveries*, at the launch of its online store at **www.amnh.org**. A visit to the Museum Shop, either on-site or online, extends and enriches the Museum experience. And, of course, the Members' discount applies to online purchases.

rotunda

ISSN 0194-6110
USPS Permit #472-650
Vol. 30, No. 4, July/August/September 2005

Lewis W. Bernard, *Chairman*
Ellen V. Futter, *President*
Lynn DeBow, *Senior Vice President for Development and Membership*
Rosemary Caulk, *Director of Membership*

Rotunda is published bimonthly, except for a combined issue in July/August/September and a single issue in December, by the Membership Office of the American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192. Phone: 212-769-5606. Web address: www.amnh.org. Museum membership of $55 per year and higher includes a subscription to *Rotunda*.

©2005 American Museum of Natural History.

Periodical postage paid at New York, NY, and at additional mailing offices. Postmaster: Please send address changes to *Rotunda*, Membership Office, AMNH, at the above address. Printed in the USA.

Ancient Forest, New Diorama

Two models of Mei long, *one in a birdlike resting posture* | C. Chesek/AMNH

Who knew that the prehistoric forests of northeastern China looked a great deal like New Jersey? A 700-square-foot diorama of an ancient forest, the biggest and most detailed re-creation of a prehistoric environment ever constructed, is the centerpiece of the Museum's latest spectacular exhibition, *Dinosaurs: Ancient Fossils, New Discoveries*, on view through January 8, 2006.

This scientifically accurate re-creation of a Mesozoic forest—down to the ginkgo leaves and prehistoric cockroaches—that existed in what is now northeastern China's Liaoning Province is a monumental achievement of scientific and artistic design that will allow visitors to venture into a "lost world" never before viewed by humans.

At first glance, this ancient environment seems eerily familiar, since most of the plants and trees growing in Liaoning Province in China 130 million years ago are very similar to modern pines, ferns, and cedars that grow abundantly today in the New Jersey Pine Barrens, according to paleobotanist Kirk R. Johnson of the Denver Museum of Nature & Science.

This evocative diorama is not housed behind glass walls, so visitors will feel as though they are virtually in the center of the Liaoning Forest. They can look up into the leafy treetops, peer through dense foliage, and even gaze into "waters" ingeniously designed to resemble flowing streams. They will come face to face with more than 100 full-size models depicting the wide range of amazing creatures that lived there, including dinosaurs, early birds, mammals, fish, insects, and reptiles.

"Unlike the settings of most of the other dioramas here at the Museum, this forest environment has never been seen by human eyes," said Mark A. Norell, curator of *Dinosaurs* and Curator and Chairman of the Museum's Division of Paleontology, "but the countless well-preserved fossils we have uncovered in Liaoning Province provide an extraordinary window into its prehistoric past."

Not just an artistic flight of fancy, the creatures and backgrounds in the Liaoning Forest diorama are the result of an extraordinary collaboration of art and science, the latest in a 150-year-old worldwide traditionof merging the two to re-create prehistoric worlds for contemporary audiences. Sculptors and painters in the Museum's Department of Exhibition have partnered with renowned paleontologists to create this detailed slice of Mesozoic China. A team of artists in the Department of Exhibition spent weeks painting the 68-foot-long background mural for the diorama. Museum sculptors immersed themselves in the latest scientific reports on the Liaoning fossil finds before meticulously sculpting the life-size, fleshed-out models of 35 different Mesozoic species.

The feedback between artists and scientists was lively and mutually enlightening. The sculptors would modify the positions of limbs and musculature based on the advice of experts, and sometimes the scientists themselves would gain important new insights after seeing their specimens transformed into three-dimensional models.

The most spectacular elements of the Liaoning Forest are the numerous three-dimensional, full-size models that populate the diorama. Highlights of the models in the diorama include:

ON THE GROUND

Dilong paradoxus: This newly identified primitive tyrannosaur was covered with branched protofeathers—precursors to the feathers found on living birds. This new finding, first described by Museum scientists late last year, suggests that other tyrannosaurs were also covered with fluffy protofeathers at some stage in their lives.

Psittacosaurus sinensis *family group* | C. Chesek/AMNH

Beipiaosaurus inexpectus *is one of the largest models in the Liaoning Forest diorama.* | R. Mickens/AMNH

Sinosauropteryx prima: One of the most important discoveries in paleontology in the last century, this small, meat-eating dinosaur was the first feathered dinosaur ever uncovered. Discoveries like this one have provided compelling evidence that birds are living descendants of theropod dinosaurs.

Beipiaosaurus inexpectus: This six-foot-long feathered dinosaur is one of the largest models in the diorama, and perhaps the most startling in appearance with its small, birdlike beak, oversized claws, and unusual protuberances on its upper arms.

Mei long: This small birdlike dinosaur is depicted with its head tucked between its forearm and trunk and its tail encircling its body. The model is based on a fossil described by Museum paleontologists last year. The pose matches the typical sleeping or resting posture found in living birds and supports the hypothesis that nonavian dinosaurs, like the modern birds that evolved after them, were warm-blooded.

***Psittacosaurus sinensis* family:** A recent fossil discovery of a single *Psittacosaurus* adult, found buried together with several dozen juveniles, suggests that these parrot-beaked herbivorous dinosaurs lived together in clutches and that parents cared for their young.

Repenomamus giganticus: The largest Mesozoic mammal yet uncovered, this badger-sized creature is shown in the diorama stalking baby dinosaurs. Earlier this year, Museum scientists studied the fossil of a related species called *R. robustus* and found the remains of a juvenile psittacosaur in its stomach area. These two fossils provide the first direct evidence that primitive mammals ate dinosaurs and could grow to be much larger than previously thought.

Eomaia scansoria: This shrew-like creature is considered the earliest known placental mammal (animals that give birth to live young). It was probably an agile climber, moving easily from branch to branch.

IN THE AIR

Microraptor gui: This small dinosaur resembles a feathered biplane—with two sets of wings on its arms and legs. *Microraptor* was likely an arboreal dinosaur that used its primitive feathers to glide from one tree to another in search of prey or to escape predators.

Confuciusornis sanctus: This pigeon-sized primitive bird is the first one known to have a beak with no teeth. Fossil remains of this bird have been found with both long and short tail feathers. Scientists believe that the long colorful tail feathers may have been used in mating displays, similar to those of modern-day peacocks.

Sinopterus dongi: This creature belonged to the group called pterosaurs (or "winged lizards") and shared the Mesozoic skies with primitive birds, to which they were not closely related. The wings of *Sinopterus* were largely made up of skin membranes while avian wings consist mainly of feathers.

UNDER THE WATER

Lycoptera: This small bony fish appears to have been plentiful in the freshwater lakes around the Liaoning Forest. It belonged to an extinct genus of fish distantly related to modern mooneyes and boneytongues.

Peipiaosteus pani: Apparently less common than other Chinese fossil fish, this Mesozoic species is believed to be closely related to living sturgeon, bowfin, and pike.

Manchurochelys liaoxiensis: This extinct turtle is closely related to the present-day snapping turtle.

Microraptor gui *appears to fly through the Liaoning Forest diorama.* | R. Mickens/AMNH

Hyphalosaurus lingyuanensis: Its serpentine body, long neck, and needlelike teeth may have helped this aquatic reptile hunt small fish and insects in freshwater lakes and rivers.

To learn more about the exhibition, visit www.amnh.org/dinosaurs.

Dinosaurs: Ancient Fossils, New Discoveries *and its accompanying education and public programs are made possible by* ***Bank of America.***

This exhibition is organized by the American Museum of Natural History, New York (www.amnh.org), in collaboration with the Houston Museum of Natural Science; California Academy of Sciences, San Francisco; The Field Museum, Chicago; and North Carolina Museum of Natural Sciences, Raleigh.

Major funding has also been provided by the Lila Wallace-Reader's Digest Endowment Fund.

Members' Programs

Programs are available to Members only, unless a non-Member's price is given.

Courtesy Peter Brown

LECTURES

Once Upon a Time, in a Cave, on a Tropical Island: the Life and Times of Homo floresiensis

Thursday, September 15 ML091505
7:00 p.m.
Kaufmann Theater
Free

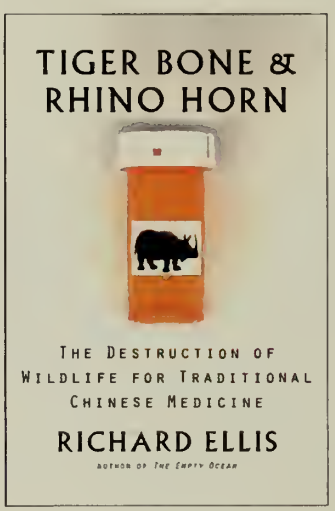
Since the discovery of a new species of small hominin at Liang Bua on the Indonesian island of Flores, research has continued with the initial skeletal material, and new evidence has been recovered. It is now possible to reconstruct the limb proportions and body shape of *H. floresiensis* with greater certainty, with implications for a variety of phylogenetic and behavioral scenarios. Peter Brown, Professor of Palaeoanthropology at the University of New England, will review the anatomical and archaeological evidence for *H. floresiensis*, and discuss possible models for the origin and evolution of this species.

Cosponsored by the Wenner-Gren Foundation for Anthropological Research and AMNH.

Tiger Bone and Rhino Horn

Thursday, October 6 ML100605
7:00 p.m.
Kaufmann Theater
$12 ($15 Non-Members)

The trade for animal parts is the leading cause of species endangerment in Asia, and poaching is increasing at an alarming rate. Some traditional Chinese medicines rely on parts of tigers, rhinos, bears, and other animals, which are being hunted to near extinction in order to fill demands. Richard Ellis, renowned artist and author on marine subjects, turns terrestrial, revealing in his new book, *Tiger Bone and Rhino Horn: The Destruction of Wildlife for Traditional Chinese Medicine*, how the demand for products made from animal parts is threatening some of the world's most charismatic species and what we can do to curtail their extinction.



Birds of Central Park: A Guided Tour

Thursday, October 20 ML102005
7:00 p.m.
Kaufmann Theater
$12 ($15 Non-Members)

Central Park is one of the top birding spots in America, with more than 200 species passing through the park on their migratory routes each fall and spring. Close to one-third of the bird species found in the United States are represented here. Photographer Cal Vornberger, author of *Birds of Central Park*, is joined by Marie Winn, nature columnist for the *Wall Street Journal* and author of *Redtails in Love*, to take you on this fascinating journey to learn what you might see in your own neighborhood.

Funnel weaver spider | Randy Mercurio

WORKSHOP

Photography and Collecting in Central Park

Friday, August 19 MK081905
10:00 a.m.–4:00 p.m.
$45

Explore the hidden world of insects and arthropods from a different perspective—through the lens of a camera. Join Randy Mercurio, photographer and Scientific Assistant in the Division of Invertebrate Zoology, on this excursion in Central Park. Bring a camera to take pictures of the diverse and colorful insects and plants in the park. Discover why photography is an important tool for scientists in the field, and learn about different collecting techniques that are used to uncover and observe the habitats of various low-vegetation-dwelling arthropods including centipedes, millipedes, and spiders. After lunch, Members will join Randy back at the Museum to learn how their images and collecting methods would be used in a lab setting.

WALKING TOURS

Geology of Staten Island

Thursday, August 18 MW081805
9:00 a.m.–4:00 p.m.
$40

Explore the fascinating Earth history of Staten Island on this walking tour in the company of geologist Sidney Horenstein. View the coastal exposure of the terminal moraine that crosses Staten Island and represents the southern boundary of the last glacier that covered New York City 22,000 years ago. Learn about the various rocks that form the bedrock of Staten Island and observe the surrounding scenery of New Jersey and New York Bay.

Old Audubon Park

Tuesday, August 23 MW082305
Thursday, August 25 MW082505
6:00–7:30 p.m.
$22

Join geologist Sidney Horenstein on a walking tour through the neighborhoods from 152nd to 159th Streets, where Audubon Park once was, and learn how the landscape and scenery of this area have changed. Visit Trinity Cemetery, where John James Audubon is buried, and learn about others who helped shape the history of northern Manahattan.

Carl Mehling collecting fossils in New Jersey | Meredith Barish

Brooklyn Bridge

Thursday, September 29 MW092905
5:30–7:00 p.m.
$22

Enjoy an evening walk with Sidney Horenstein over the historic Brooklyn Bridge. Explore the history and geology of the surrounding neighborhoods and why it was important for residents of Manhattan to join with the city of Brooklyn. Learn about the construction of the bridge and about the East River.

George Washington Bridge

Saturday, October 1 MW100105
9:00 a.m.–3:00 p.m.
$40

Join geologist Sidney Horenstein for an extended hike around the historic George Washington Bridge. Starting at Bennett Park, Manhattan's highest point, the group will study the geology of the Hudson River and learn about the area's Revolutionary War history. Then visit the Little Red Lighthouse in Fort Washington Park (also known as Jeffrey's Hook), just beneath the bridge, and walk along the scenic Manhattan Waterfront Greenway bicycle and pedestrian path. Please wear comfortable walking shoes.

EXPEDITIONS

Up to Your Elbows in Fossils

Saturday, September 17 MO091705
9:00 a.m.–5:00 p.m.
$75

Pack your collecting bag, old sneakers, and lunch, and join Carl Mehling, Fossil Collections Manager in the Division of Paleontology, for an expedition to Big Brook in Monmouth County, New Jersey, an area that offers a variety of invertebrate and vertebrate fossils from the Late Cretaceous. Plentiful fossils and a diverse fauna make it an ideal spot for an introduction to fossil collecting. Fee includes transportation by private coach and a field guide of the area.

Fall Migration at Fort Tilden and Breezy Point

Saturday, September 24 MO092405
8:00 a.m.–4:00 p.m.
$60

Join Paul Sweet, Collections Manager in the Department of Ornithology, for this bird walk exploring Fort Tilden and Breezy Point at the western tip of the Rockaway Peninsula in Queens, a premier area for observing the fall migration of a variety of birds. Birds moving south reach the Atlantic Ocean and are funneled west along the narrow strip of beach, dunes, and pine thickets. In late September, you may see good numbers of raptors, waterbirds, and songbirds. Fee includes transportation by private coach.

Elbatite in the Museum's collection. | J. Beckett/AMNH

Glorious Gemstones

Saturday, October 15 MO101505
10:00 a.m.–2:00 p.m.
$40

Get an inside glimpse at how stones in the rough are cut—an art that takes years of training—and transformed into beautiful specimens

The Peregrine Falcon diorama | J. Beckett and C. Chesek/AMNH

that dazzle the eye. Starting with a tour of the Morgan Memorial Hall of Gems, this expedition will continue to midtown Manhattan with a rare behind-the-scenes tour of a gemstone cutting facility. Norman Rothwell, Museum Tour Guide and mineral enthusiast, guides this trip.

HALL TOUR

Birding around the World

Wednesday, September 28 MT092805
7:00–8:30 p.m.
$30

Bring your binoculars and join naturalist Stephen C. Quinn, Department of Exhibition, for a birding tour of the Museum's famous dioramas. Test your skills in identifying the birds, both common and rare, in these renowned works of art of natural settings all over the world. We guarantee the sighting of an ivory-billed woodpecker!

CHILDREN'S PROGRAMS

Meet the Constellations

Sunday, September 25 MC092505
11:00 a.m.–12:30 p.m.
2:00–3:30 p.m.
(Ages 9 and up; limited to 25)
$28

Stone Age or Space Age, humans have always pondered the mysterious lights above us. Join educator Stephen Brodbar as he teaches participants how to recognize prominent "shapes" in the nighttime sky and how to use star maps.

The Amazing Dr. Can-Do's Halloween Magic Show

Saturday, October 22 MC102205
1:30–3:00 p.m.
$20 parent and child; $8 each additional child
Linder Theater

Come experience the wacky visions of the internationally unknown Dr. Quacksalver T. Can-Do, professor of magic, in an hour of fantastic magical experiments. Dr. Can-Do will delve into some spooky stuff, including a good old-fashioned story to learn, grow from, and share with your friends. Don't forget to bring your imagination, or you might vanish into thin air!

PREVIOUSLY LISTED

Limited space may still be available for these programs.

Old New York

Tuesday, July 12 MW071205
Thursday, July 14 MW071405
6:00–8:30 p.m.
$22

Join geologist Sidney Horenstein on a tour of the original shoreline and topography of lower Manhattan and learn about the area's geological history.

New York's Central Pine Barrens

Wednesday, July 13 M0071305
8:00 a.m.–6:00 p.m.
$75

Join this trip to the 5,200-acre Upton Ecological and Research Reserve, home to endangered reptiles and amphibians, and visit the Brookhaven National Laboratory (BNL). Discuss current research projects at Upton and BNL and visit the science facilities in the BNL complex. Cost includes transportation by private coach.

PEOPLE AT THE AMNH

Paul Sweet

Collections Manager, Department of Ornithology

In the midst of describing his day-to-day activities as Collections Manager in the Department of Ornithology, Paul Sweet's eyes dart toward his office window overlooking Central Park. He breaks mid-sentence to point out a red-tailed hawk, possibly the famous Pale Male, slowly circling the treetops in front of us. We watch for a moment before continuing, Paul's gaze fixed upon the majestic bird.

Ever since his childhood in Bristol, England, Paul has been fascinated by birds. He recalls collecting all sorts of "natural history items," as he calls them—from eggshells to feathers to the fragile skeletons of the creatures he now studies. After receiving a degree in zoology, Paul traveled for a number of years and worked in Singapore before joining the Museum in 1991.

"My work here involves maintaining our collections," Paul says, speaking of the Museum's vast stock of bird skeletons, alcohol-preserved specimens, and tissue samples, as well as the largest collection of bird skins in the world, numbering more than 800,000. "I supervise the processing and cataloging of our collections, as well as assist visiting scientists and collaborating institutions with their inquiries and loans from our collection."

Paul's job allows him to combine two of his greatest interests: birds and travel. He has traveled on Museum expeditions to such distant places as Vietnam, the Central African Republic, the Solomon Islands, Argentina, and Venezuela.

Photo by C. Chesek/AMNH

A Haven of Biodiversity

The American Museum of Natural History's Southwestern Research Station (see *Rotunda*, October/November 2004) has just celebrated its 50th anniversary. Renowned in the scientific and academic fields as an extraordinary place to conduct biological research, the Station is also a wonderful retreat for anyone who enjoys the outdoors and activities such as hiking and birding and other wildlife viewing. The Station is located in the Chiricahua Mountain range in southeastern Arizona, a stronghold for a wide array of both temperate and tropical species.

The area is particularly famous for its bird diversity: 265 bird species can be found nearby, and within the perimeter of the Station alone, there are 5 species of owl. The Chiricahuas are also among the most diverse areas in the United States for mammals, and are home to the javelina, coatimundi, ringtail, mountain lion, red fox, white-tailed deer, and porcupine. The Coronado National Forest, which surrounds the Station, is a hiker's paradise, and several trails are accessible directly from the Station.

The Station's accommodations are rustic but comfortable, and guests can enjoy the cooking of two excellent chefs, famous for delicious dishes such as tortilla soup and Sunday baked chicken. Vegetarian meals are also available.

During the months of March, April, May, September, and October, Museum Members are entitled to a 10 percent discount on naturalist lodgings at the Station. These are also prime birding seasons. For more information, visit http://research.amnh.org/swrs/lodging.

A generous gift from David Rockefeller enabled the Museum to acquire the Southwestern Research Station in 1955.

Hummingbird | Kevin Frey

Gambel's quail | Kevin Frey

Coatimundi | Kevin Frey

Crossword Puzzle Solution

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

AMNH Kids' Culinary Council • *Calling All Cooks!*

The third year of the AMNH Kids' Culinary Council continues with another great group of aspiring chefs who have attended hands-on workshops and participated in menu development for young diners in the Museum's food outlets. Council members are Luke Decker, Devon Paul and Jordan Reeves Kasarjian, Rachel Amy Moss, Tehmina Pechefsky, Mary Olivia, and Vera Puglisi.

Creative recipes from this group run from the depths of Earth (Archeological Dig Pie) to the edges of our galaxy (Cream of Milky Way).

Restaurant Associates and Membership are now accepting submissions for the 2005–2006 year. Budding chefs with a passion for cooking are invited to submit a recipe inspired by the Museum. Use your imagination! Past entries have included Megalosaur Meatloaf, Fossil Layer Pudding, and Fancy Frog Fruit Tarts.

Eligible for consideration are children of AMNH Members, ages 8 to 13. A panel of judges will select the winners based on the recipe's creativity, presentation, and relevance to Museum exhibitions. The Council serves a one-year term and meets with the Executive Chef four times during the year. Participants will also receive an official AMNH Kids' Culinary Council apron, $25 worth of Space Dollars good for purchases in the Museum Food Court, and a $20 Museum Shop gift certificate.

Recipes must be received no later than October 31, 2005, and be accompanied by a photograph of the prepared dish. Kids who have already served on the Council are not eligible. Winners will be contacted by November 15, 2005. Entries, which must include your name, age, Membership number, address, and daytime telephone number, should be mailed to:

American Museum of Natural History
Membership Department
79th Street at Central Park West
New York, NY 10024

Photos by C. Banicki

DINO MANIA

FREE Shipping!

Are your kids crazy for dinosaurs? Our two-foot-tall plush *T. rex* is just the thing for the young ones. (*Triceratops* and *Apatosaurus* are also available.) Children 8 and up will be challenged by Dino-opoly. And the seven items in our official AMNH gift basket will give endless hours of fun to your 3- to 8-year-old dino lover. Free shipping. Allow 7–10 days for delivery. To place orders with our Personal Shopper, call 1-800-671-7035.

AMERICAN MUSEUM OF NATURAL HISTORY

WWW.AMNH.ORG

Rotunda.
American Museum of Natural History
Received on: 06-24-05

General Information

HOURS

Museum: Daily, 10:00 a.m.–5:45 p.m.
The Rose Center remains open until 8:45 p.m. on Friday. The Museum is closed Thanksgiving and Christmas.
Space Show: Every half hour, Sunday–Thursday and Saturday, 10:30 a.m.–4:30 p.m., Friday, 10:30 a.m.–7:00 p.m.
Research Library: Tuesday–Thursday, 2:00–5:30 p.m.
Hours are subject to change.

ENTRANCES

During Museum hours, visitors may enter through the subway (lower level), Central Park West at 79th Street (second floor), and the Rose Center/81st Street entrances. The 77th Street entrance is closed until further notice.

TRANSPORTATION AND PARKING

Subway: B (weekdays) or C to 81st Street; 1 to 79th Street
Bus: M7, M10, M11, or M104 to 79th Street; M79 to Central Park West
Parking Garage: Open daily, 8:00 a.m.–11:00 p.m.; enter from West 81st Street. Members receive a discounted rate of $10 if entering after 4:00 p.m. To receive this rate, you must have your parking ticket validated at the Security Desk (first floor, Central Park West entrance). For more information, call 212-313-7278.

FOOD SERVICE

Museum Food Court: Daily, 11:00 a.m.–4:45 p.m. (*lower level*)
DinerSaurus Café on 4: Saturday and Sunday, 11:00 a.m.–4:45 p.m (*fourth floor*)
Café 77: Saturday and Sunday, 11:00 a.m.–4:45 p.m (*first floor*)
Big Dipper Café: Saturday and Sunday, 12:00 noon–4:45 p.m. (*lower level*)
Hours are subject to change.

MUSEUM SHOP

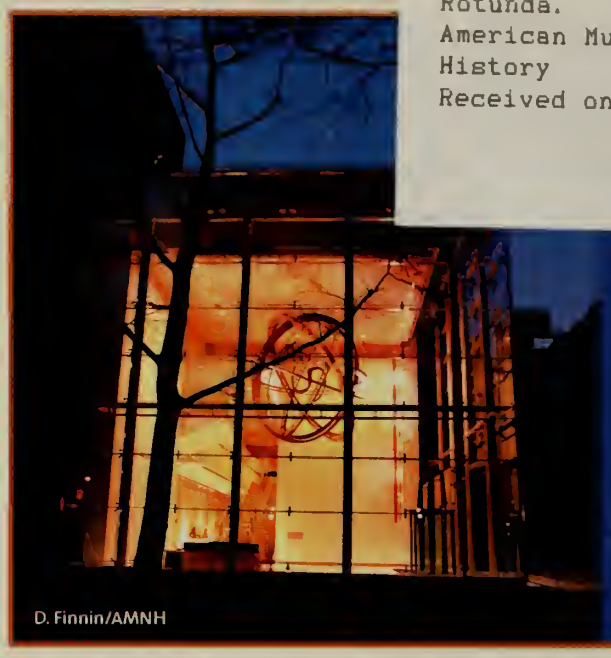
The following Museum Shops are open during regular Museum hours:
Main Shop (*first and second floors*)
Dinostore (*fourth floor*)
Planetarium Shop (*Rose Center, lower level*)
Satellite Shop (*Rose Center, first floor*)
Totems to Turquoise: The Shop (*third floor*)
Through July 10
Dinosaurs Exhibition Shop (*fourth floor*)

PHONE NUMBERS

Museum Information	212-769-5100
Membership Office	212-769-5606
Planetarium Information	212-769-5900
Member Birthday Parties	212-769-5606
Education	212-769-5304
Planned Giving Office	212-769-5119
Patrons Circle	212-769-5153
Discovery Tours	212-769-5700
Central Reservations	212-769-5200
Development	212-769-5151
Museum Shop	800-671-7035
Library Services	212-769-5400
Communications	212-769-5800
Volunteer Office	212-769-5566
Event & Conference Services	212-769-5350
Natural History Magazine	646-356-6500
Web Site	www.amnh.org

www.amnh.org

AMERICAN MUSEUM OF NATURAL HISTORY


D. Finnin/AMNH

Pavilion
entrance on Columbus Avenue at 79th Street will be open for ticketing on weekends and holidays starting
July 1, 2005

Membership Department
Central Park West at 79th Street
New York, New York 10024-5192
www.amnh.org

rotunda

OL. 30 NO. 6 DECEMBER 2005

MEMBERS' NEWSLETTER

QH 0
.U 2
N
v 30
n 6
D 2005

AMERICAN MUSEUM OF NATURAL HISTORY

Museum Notes

CURRENTLY ON VIEW

Darwin

Through May 29, 2006
Gallery 3

This magnificent exhibition offers visitors a comprehensive, engaging exploration of the life and times of Charles Darwin, whose discoveries, observations, and subsequent insights in the 19th century forever changed the perception of the origin and nature of our own species and launched modern biological science.

The American Museum of Natural History gratefully acknowledges **The Howard Phipps Foundation** *for its leadership support. Significant support for* Darwin *has also been provided by the Austin Hearst Foundation, Jack and Susan Rudin, and Rosalind P. Walter.*

Additional funding provided by the Carnegie Corporation of New York and Dr. Lindo K. Jacobs.

Darwin *is organized by the American Museum of Natural History, New York (www.amnh.org), in collaboration with the Museum of Science, Boston; The Field Museum, Chicago; the Royal Ontario Museum, Toronto, Canada; and the Natural History Museum, London, England.*

Dinosaurs: Ancient Fossils, New Discoveries

Through January 8, 2006
Gallery 4

This groundbreaking exhibition reveals how current thinking about dinosaur biology has changed dramatically over the past two decades and presents the most up-to-date look at how scientists are reinterpreting many of the most persistent and puzzling mysteries of dinosaurs—what they looked like, how they behaved, how they moved, and ultimately why, or even if, they became extinct.

Dinosaurs: Ancient Fossils, New Discoveries *and its accompanying education and public programs are made possible by* **Bank of America**.

The exhibition is organized by the American Museum of Natural History, New York (www.amnh.org), in collaboration with the Houston Museum of Natural Science; California Academy of Sciences, San Francisco; The Field Museum, Chicago; and North Carolina Museum of Natural Sciences, Raleigh.

Major funding has also been provided by the Lila Wallace-Reader's Digest Endowment Fund.

Cover: *Graduate student Bob Schelly cast-net fishing at Congo river rapids near Brazzaville, Republic of Congo* | I. Harrison

Psittacosaurus sinensis *family group* | C. Chesek/AMNH

The Butterfly Conservatory: Tropical Butterflies Alive in Winter

Through May 29, 2006

The butterflies are back for their eighth year! Mingle with up to 500 live, free-flying tropical butterflies in an enclosed habitat that approximates their natural environment with lush vegetation and live flowering plants.

Admission is by timed entry only. Tickets are $10 for Members and $6 for Members' children.

A butterfly perches on a tropical plant in The Butterfly Conservatory. | R. Mickens/AMNH

Voices from South of the Clouds

Through March 12, 2006
Akeley Gallery

Selected images from the Nature Conservancy's Photovoice project are displayed in this captivating exhibition that reveals the land and the people of China's Yunnan Province. This project puts the cameras in the hands of the villagers themselves, who use photography to chronicle their culture, religion, and daily life.

The exhibition is made possible by a generous grant from the Eastman Kodak Company.

The presentation of this exhibition at the American Museum of Natural History is made possible by the generosity of the Arthur Ross Foundation.

Vital Variety: A Visual Celebration of Invertebrate Biodiversity

Ongoing
IMAX Gallery

Beautiful close-up photographs highlight the importance of the immense diversity of invertebrates and their critical role in the survival of humankind.

Members' Family Holiday Party

Saturday, December 3 MP120305
1:00–4:00 p.m.

Join us in the Milstein Hall of Ocean Life for holiday crafts and live entertainment. Children will sing along with award-winning trio David Grover and the Big Bear Band as they perform holiday songs.

The event is free and open to Family and higher-level Members only. Members must register in advance by calling 212-769-5200.

D. Finnin/AMNH

HAYDEN PLANETARIUM SHOWS

SonicVision

Fridays and Saturdays, 7:30, 8:30, and 9:30 p.m.

SonicVision is a trip out of this world and into the minds of the universe's most creative digital animators, set to a soundtrack of today's coolest music.

Now, for a limited time only, bring a friend FREE to *SonicVision*. Coupons are available at any Information Desk or at www.amnh.org.

Presented in association with MTV2 and in collaboration with renowned artist Moby.

SonicVision *is made possible by generous sponsorship and technology support from Sun Microsystems, Inc.*

The Search for Life: Are We Alone?

Journey from the lightless depths of Earth's oceans to newly discovered planets on a quest for worlds that might support life.

The Search for Life: Are We Alone? *is made possible through the generous support of Swiss Re.*

Passport to the Universe

The original Hayden Planetarium Space Show, narrated by Tom Hanks, is back by popular demand!

The Space Shows were developed by the American Museum of Natural History in collaboration with the National Aeronautics and Space Administration (NASA). Written by Ann Druyan and Steve Soter. Music by Stephen Endelman.

MEMBERS' EXTRA DISCOUNT DAYS

In the Museum Shops
Saturday and Sunday,
December 3 and 4

For two special days, the Museum Shops will offer a 20% discount for Members instead of the usual 10% discount. It's the perfect opportunity to stock up on fascinating and fanciful holiday gifts.

IMAX MOVIES

Samuel J. and Ethel LeFrak Theater

For films and showtimes, visit www.amnh.org or call 212-769-5100.

SAVE THE DATE

2006 Isaac Asimov Memorial Debate *Universe: One or Many?*

Wednesday, March 29, 2006

This panel debate, generously endowed by relatives, friends, and admirers of Isaac Asimov, will once again bring some of the finest minds in the world to the Museum to help shed new light on issues at the frontier of scientific discovery.

Partymakers

AND DON'T MISS...

AMNH Birthday Parties

Be the first to book your Underwater Treasures birthday party this winter! The Milstein Hall of Ocean Life is the backdrop for this deep-sea birthday adventure. Dive 20,000 leagues under the sea, where the birthday child and friends examine the wonder of life beneath the waves.

Linda Kaye's Partymakers also presents three other festive party themes: Dinosaur Discoveries, Cosmic Blast-off, and Safari Adventure. Each party offers a winning combination of education and entertainment. Parties are tailored for children ages 4 and up and are available seven days a week as a benefit to Contributor and higher-level Members only. For more information and to request a date, visit www.partymakers.com or call Linda Kaye's Partymakers at 212-288-7112.

rotunda

ISSN 0194-6110
USPS Permit #472-650
Vol. 30, No. 6, December 2005

Lewis W. Bernard, *Chairman*
Ellen V. Futter, *President*
Lynn DeBow, *Senior Vice President for Development and Membership*
Rosemary Caulk, *Director of Membership*

Rotunda is published bimonthly, except for a combined issue in July/August/September and a single issue in December, by the Membership Office of the American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192. Phone: 212-769-5606. Web address: www.amnh.org. Museum membership of $70 per year and up includes a subscription to *rotunda*.

©2005 American Museum of Natural History.

Periodical postage paid at New York, NY 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 USPS 472-650). Date of filing: October 1, 2005. Frequency of issue: Bimonthly except for a combined issue in July/August/September and a single issue in December. Number of issues published annually: 6.Annual subscription price: Museum membership of $70 a year or higher. 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:Membership Office, American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192. Editor: Jaime Sperling. Owner: American Museum of Natural History. Known bondholders, mortgage 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 preceding 12 months, and (B) signifies average number of copies of single issue published nearest to filing date. Total number of copies (A) 60,000 (B) 60,000. Paid circulation through Dealers and Carriers, Street Vendors, Counter Sales, and Other Non-USPS Paid Distribution (A) and (B): None. Mail subscription: (A) 54,780 (B) 55,250. Free distribution by mail: (A) 200 (B) 4450. Free distribution outside of mail: (A) 3,200 (B) 3,992. Total distribution: (A) 58,800 (B) 59,697. Copies not distributed: (A) 1,200 (B) 303. Return from news agents: None. Percent Paid and or Requested Circulation: 92%. I certify that the statements made by me above are correct and complete.
(signed) Rosemary Caulk

Printed by Brown Printing, E. Greenville, Pennsylvania.

Aqua Incognita

Melanie L. J. Stiassny
Axelrod Research Curator
Department of Ichthyology

There are about 335 million cubic miles of water on our planet, enough to cover the United States with 93 miles of water. Therefore, it is perhaps no surprise that much of the Earth's diversity in vertebrates (all the animals with backbones) is made up of fishes. In fact, there are more fish species on the planet than all of the other vertebrate species combined, resulting in a staggeringly diverse group of animals with complex forms and lifestyles.

For instance, fishes can thrive in almost every conceivable living space, from high mountain springs more than 16,500 feet above sea level, to the ocean abyss some 26,300 feet below. The lifespans of fish species range from 1 year to more than 150 years, with some migrating thousands of miles to spawn and feed and other homebodies spending their entire lives within feet of their hatching site. Some spawn once in their lives, others spawn many times. Most fish lay eggs but some give birth to live young, and some are even capable of self-fertilization. Various fish species produce venom, light, or electricity, and many fish produce sound. Most fish are "cold blooded," with some thatcan withstand temperatures as high as 111°F (44°C), and others that can tolerate frigid polar seas as cold as the blood's freezing point, 28°F (-2°C), thanks to antifreeze proteins. The habitats of fish vary from "pure" freshwater to water up to three times saltier than seawater to mud.

What may come as even more of a surprise is that while all this tremendous diversity of fish out there is known, the actual number of species in existence is still unknown. Ichthyology is still very much in a "golden age" of discovery, with between 200 and 250 species new to science described each year, giving us better insight into where fishes live and how they are faring on this increasingly human-dominated planet. This major knowledge gap is a problem not only because we need to know all the ecosystem players before we can understand their relationships, but also because fishes are the "canaries in the coalmine" of the aquatic world—the health of the oceans, rivers, and lakes can be measured by the health and abundance of their fishes.

AMNH ichthyological exploration, 2000–2005

The AMNH team negotiating some very rough roads en route to Marolambo in eastern Madagascar | M. L. J. Stiassny

Scientists and students in the Museum's Department of Ichthyology are at the forefront of exploration efforts to document and interpret the diversity of the Earth's fishes, to reconstruct their evolutionary and biogeographic histories, and to provide the scientific underpinnings for conservation actions. The wide geographical scope of the department's aquatic exploration and collecting activities of the past five years are illustrated in Figure 1.

The Museum's current ichthyological research activities reflect the diversity of the organisms studied—with locales ranging worldwide from tropical freshwaters to coral reefs and near-shore marine habitats. Curator Scott Schaefer is a pioneer in studying the diversity of astroblepid catfishes whose modified suctorial mouths enable them to climb the sheer faces of waterfalls in torrential mountain streams of the High Andes. Curator John Sparks and postdoctoral fellow Leo Smith are engaged in wide-ranging studies of the evolutionary relationships and diversity of the extraordinary "bioluminescent" pony fishes of the Indo-Pacific.

Discovery rates are high, and with each expedition, new species are found, leading to ongoing taxonomic revisions and evolutionary studies back at the Museum. For example, the survey work

of Dr. Sparks and Curator Melanie Stiassny, along with research associates, students, and colleagues, has recast our understanding of freshwater fish diversity on Madagascar. Once viewed as an evolutionary anomaly where fish diversity was much lower than expected on an island so large, findings indicate that the actual number of species is 60% higher than previously thought. In other words, there is no evolutionary anomaly and fish diversity on Madagascar is every bit as high as biogeographic theory predicts it should be. In fact, it is perhaps even higher. The surveys of graduate student Bob Schelly, researcher Ian Harrison, and Dr. Stiassny in the Congo River basin hold promise for similar advances

Victoria Falls on the Zambezi River | R. Schelly

Reef fishes from Madagascar and members of the ichthyology team | J. Sparks

in our understanding of African fish biodiversity. Currently it is graduate student Bob Schelly who holds our expeditionary record—in the course of his Ph.D. research, he has participated in multiple expeditions to the Congo as well as to Nigeria, Benin, Zambia, Lake Tanganyika, and Vietnam.

A common thread among all the department's expeditions, beyond the discovery of new species and the unraveling of evolutionary relationships, is that of building the Museum's collections, a critical resource for Museum scientists and ichthyologists worldwide. The AMNH fish collections, currently numbering over two million specimens, date back to the earliest days of the institution and form the core of our scientific mission. The fish collection is like a library; only instead of books it houses specimens, skeletons and tissues. The collections form an invaluable, and in many cases irreplaceable, part of the historical record of the diversity of life on Earth. Each specimen jar records a snapshot in time of fish diversity in a particular place. Spanning more than 100 years, our collections are a permanent record of "what was once there."

Today such collections are more important than ever: the pace of environmental change and landscape transformation is accelerating and species are increasingly being lost to extinction. For example, fishes collected during the Museum's Archbold Expedition to Madagascar in the late 1920s provide a baseline in time for this region. During recent expeditions to the island, Museum scientists have returned to those same collecting sites to assess the degree of environmental change. And in the same way, the Museum's extensive collections enable scientists and conservationists alike to pinpoint those parts of the globe where species diversity is greatest or, all too commonly, where species loss is most acute and endangerment the highest. In many ways this is a race against the clock—so many fishes, so little time.

Wildlife Conservation Society boats at Cap Masoala, Madagascar | J. Sparks

Members' Programs

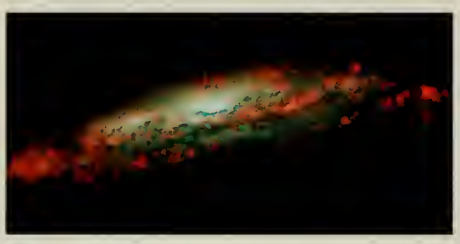
Programs are available to Members only, unless a non-Member's price is given.

LECTURE

What's Out There and What's Really Out There

Tuesday, February 7 ML020706
7:00 p.m.
Kaufmann Theater
$12 ($15 Non-Members)

Ray Villard, News Director of the Hubble Space Telescope, and Mary K. Baumann, author of *What's Out There: Images from Here to the Edge of the Universe*, discuss selected images and the technical challenges of bringing them down to Earth. They will explain how the images are made and how true the colors are, as well as the techniques astronomers use to see otherwise invisible objects.



The Seyfert Galaxy NGC 3079 | NASA/ESA/Hubble Space Telescope

BEHIND-THE-SCENES

Behind the Scenes in Mammalogy

Wednesday, January 18 MB011806
6:30, 7:00, or 7:30 p.m.
$30

The Museum's mammal collection is among its oldest and houses over 275,000 specimens. Senior Scientific Assistant Ruth O'Leary will present the diverse bat collection, which contains specimens of many rare and extinct species from around the world. Scientific Assistant Eileen Westwig and Collections Specialist Neil Duncan will talk about the importance of the fluid-preserved specimen facility and the department's colony of carnivorous dermestid beetles.

Behind the Scenes in Herpetology

Thursday, February 9 MB020906
6:30, 7:00, or 7:30 pm
$30

The Department of Herpetology maintains one of the largest collections of amphibians and reptiles including specimens from almost every country in the world. Go behind the scenes on a tour of the collections with Curatorial Associate David Kizirian and Senior Scientific Assistant David Dickey, who will discuss the importance of the data associated with Museum specimens, and Biodiversity Specialist Raoul Bain, who will discuss his research in Vietnam.

EXPEDITIONS

Celebrate Africa

Saturday, February 18 MW021806
10:30 a.m.–2:00 p.m.
$45

The Division of Anthropology's extensive African collection includes objects such as masks and headdresses used in the art of puppetry, one of the most ancient forms of entertainment and communication in various African cultures. Go behind the scenes with Curatorial Assistant Naomi Goodman and view objects from the collection. Then, Members will journey downtown for a private tour of an African puppetry exhibit.

Short-faced fruit bat | Fenton, M. Brock 1992, from *Bats*

Research at the Explorers Club

Tuesday, February 28 MW022806
6:30–8:30 p.m.
$55

Since its inception in 1904, the Explorers Club has served as a unifying force for explorers and scientists around the world. Join Clare Flemming, the Club's Curator of Research Collections, for a tour of the landmark building that houses the Explorers Club. The evening includes a wine reception.

HALL TOUR

Your Fishy Ancestors and Others

Saturday, January 28 MT012806
3:00–4:30 p.m.
Free (reservations required)

What makes something *fishy*? Join Museum Tour Guide Bill Hinchman for a unique hall tour about our bony, water-loving ancestors. See real fossils of extinct creatures and learn how they relate to us. Journey through the Milstein Hall of Ocean Life and discover related species living today, and learn how the fate of our fishy relatives is tied to our own.

That's Entertainment!

Saturday, February 25 MT022506
3:00–5:00 p.m.
$20

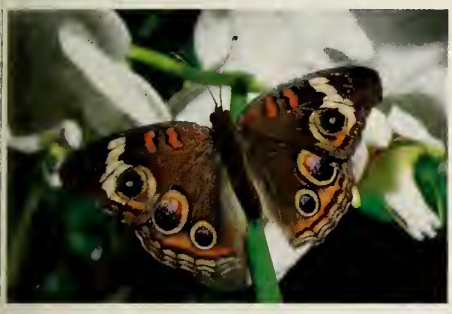
Movies take us everywhere, from far-off galaxies, to lush rain forests and the mystical depths of the ocean. Journey through the Museum's halls with Tour Guide Louise Cherkis as she discusses scenes from movies that take place at the Museum and separates fact from fiction in Hollywood's storylines. A viewing guide will enable you to detect some of the errors in popular film. The evening includes light refreshments before the cinematic sleuthing begins.

ADULT WORKSHOP

The Art of Photographing Butterflies and Moths

Thursday, January 26 MK012606
6:30–8:30 p.m.
$45

The Butterfly Conservatory houses up to 500 live butterflies from around the world. Bring your camera and tripod and join Hazel Davies, photographer and Living Exhibits Coordinator, for a unique after-hours opportunity to capture these exotic and colorful insects digitally or on film. In addition, go behind the scenes to the spectacular collection of pinned moth specimens and discover why these insects are inspirational models for artists and scientists alike.



Common buckeye (Junonia coenia) | Hazel Davies

CHILDREN'S PROGRAMS

Feathers, Feet, and Fossils

Sunday, January 8
10:30 a.m.–12:00 noon MC010806A
(Ages 5–7; limited to 25 children)
1:30–3:00 p.m. MC010806B
(Ages 8 and up; limited to 25 children)
Rose Center Classroom
$28

Children will learn why scientists are looking to dinosaurs' closest relatives, modern birds, to better understand the past. They will join educator Arthur Horan to observe the features that connect and separate modern birds and dinosaurs and will have the opportunity to sketch in the Museum halls.

Critters of the Galápagos

Sunday, January 29
10:30 a.m.–12:00 noon MC012906A
(Ages 5–7; limited to 25 children)
1:30–3:00 p.m. MC012906B
(Ages 8 and up; limited to 25 children)
Rose Center Classroom
$28

Children create their own island mobiles based on the exotic and diverse animals that inhabit the Galápagos Islands, including the blue-footed booby, the giant land turtle, the albatross, the parrot fish, tropical penguins, and many others. Join educator and artist Pamela Popeson and discover what makes the Galápagos a unique island paradise for thousands of different animals.

PREVIOUSLY LISTED

Limited space may still be available for these programs.

Encyclopedia Prehistorica: Dinosaurs

Sunday, December 4 ML120405
2:00 p.m.
Kaufmann Theater
$12 ($15 Non-Members)

Masters of the pop-up book, Robert Sabuda and Matthew Reinhart will present their latest awe-inspiring creation, *Encyclopedia Prehistorica: Dinosaurs*. They will discuss their creative collaboration on this book, the art of paper construction, and the importance of dinosaur research.

Darwin: Discovering the Tree of Life

Tuesday, December 6 ML120605
7:00 p.m.
Kaufmann Theater
$12 ($15 Non-Members)

Niles Eldredge, Curator in the Division of Paleontology and curator of the current special exhibition, *Darwin*, discusses the life and discoveries of the 19th-century scientist who revolutionized biological science. Eldredge's new book, *Darwin: Discovering the Tree of Life*, is more than a companion book to the exhibition; it is a rich and inspiring reconstruction of Darwin's life through his observations and writings.

Sally lightfoot crab | Steve Quinn

Fossil Detectives

Sunday, December 11
10:30 a.m.–12:00 noon MC121105A
(Ages 5–7; limited to 25 children)
1:30–3:00 p.m. MC121105B
(Ages 8 and up; limited to 25 children)
$28

Learn to excavate and reconstruct fossils using the same techniques Museum scientists use in their own research. Artist and educator Pamela Popeson leads this workshop.

Treasure Hunt: *Survival of the Fittest*

Sunday, January 22
10:30 a.m.–12:30 p.m.
Free and open to Contributor and higher-level Members
(recommended for ages 9 and up)

Find out if your family is the fittest and can survive the American Museum of Natural History Treasure Hunt. Test your wits following clever clues through the Museum halls and dioramas on an adventure of biological discovery. Your detective skills and knowledge of nature will keep you off the bottom of the food chain!

Public Programs

These programs are available to the general pub
Call 212-769-5200 for information and tick

LECTURES

Our Inner Ape: What Primate Behavior Tells Us about Human Nature

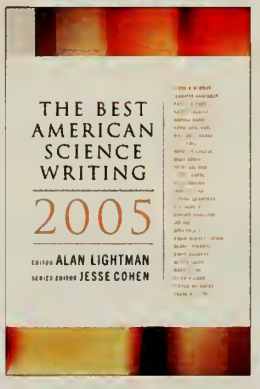
Thursday, December 15 EL121505
7:00 p.m.
Kaufmann Theater
$15 ($13.50 Members)

Noted primatologist Frans B. M. de Waal explores the duality of human nature in his new book. A book signing follows.

Adventures in the Global Kitchen: Sake

Tuesday, January 17 EL011706
7:00 p.m.
Linder Theater
$20 ($18 Members)

Ring in the new year with Bon Yagi and Ken Kusakabe, owners of the restaurant Sakagura, along with sake expert Chris Pearce. Learn about the history, production, and different types of sake, and how to pair it with food.



The Best American Science Writing 2005

Thursday, January 26 EL012606
7:00 p.m.
Kaufmann Theater
$15 ($13.50 Members)

The most thought-provoking science writing of the past year is presented through the prism of current events. Moderated by Alan Lightman, the panel includes Philip Alcabes, Gina Kolata, and Robin Marantz Henig. A book signing follows.

DARWIN

Darwin's Legacy

Thursday, December 1 EL120105
7:00 p.m.
LeFrak Theater
$15 ($13.50 Members)

Explore Darwin's legacy and its continuing impact on science and society with a panel of experts. The panel will be moderated by Robert Bazell, Chief Science Correspondent, NBC News.

The Science of Evolution

Thursday, January 5 EL010506
7:00 p.m.
Kaufmann Theater
$15 ($13.50 Members)
This program will be interpreted in ASL.

This lecture will address the fundamental elements of and misconceptions about the theory of evolution.

Darwin and His Dogs

Sunday, January 22 EC012206
12:00 noon–1:00 p.m.
Kaufmann Theater
$8 children; $10 adults

David A. Feller explains how Darwin's experience with dogs helped him understand the importance of selection and inheritance. Also, meet some champions representing the breeds Darwin knew best.

Mapping the Dog Genome

Sunday, January 22 EL012206
2:30–3:30 p.m.
Kaufmann Theater
Free with Museum admission
(Recommended for ages 16 and up)

Scientists are developing a canine genome map to identify genes that predispose dogs to inherited diseases. Live dogs will represent the breeds being discussed.

LIVING IN AMERICA

Celebrating Darwin's Voyages

Three Saturdays, January 14–28
1:00–5:00 p.m.
Kaufmann and Linder Theaters
Free with Museum admission

Following the path of Charles Darwin's historic five-year voyage aboard the HMS *Beagle*, performances, lectures, and films introduce visitors to some of the cultures he encountered during his journey.

KIDS AND FAMILY

Dr. Nebula's Laboratory: Planetary Vacation

Saturday, December 17 RP121705
2:00–3:00 p.m.
Kaufmann Theater
$8 children; $10 adults
(Recommended for families with children ages 4 and up)

Dr. Nebula is taking a cosmic vacation and Scooter is tracking this voyage to explore our solar system.

Food Photographs © 2004 by Jack McConnell, McConnell, McNamara & Company

Adventures in the Global Kitchen for Kids and Families: South of the Border

Sunday, January 29 EC012906
12:00 noon
Linder Theater
$8 children; $10 adults
(Ages 10 and up)

Matthew Locricchio discusses food and culture and prepares authentic recipes from around the world, including guacamole and several zesty salsas. A question-and-answer session and book signing follow.

The New Challenge

Dear Museum Member,

On behalf of the American Museum of Natural History, I am thrilled to provide an update on the Museum's important fundraising campaign, *The New Challenge: Meeting the Demands of Science and Society*.

Since the campaign announcement earlier this year, we have been deeply grateful to receive generous support from new and old Museum friends, Members, corporations, foundations, and government agencies toward the ambitious and challenging plans outlined in *The New Challenge*. We have raised over $503 million* in gifts and pledges toward the $850 million goal, from contributions at all levels in support of a range of Museum needs—from operations and public programs, to education and scientific research. With the generosity of so many, the Museum has launched new programs, such as *Urban Advantage*, a partnership with the New York City Council and Department of Education to build the science education capacity of middle-school students and teachers in the public schools, and mounted new exhibitions such as the spectacular new *Darwin* show.

Perhaps most importantly, the Museum has raised over $147 million* to bolster its endowment, a critical component of the campaign and vital to maintaining the Museum's financial equilibrium and sustaining and enhancing its programs. Donors have created endowments to support a number of important initiatives; among them, fellowships for graduate students, admission for the thousands of public-school children who visit annually, scientific research, and the development of new exhibitions. We deeply appreciate the generosity of those who share our commitment to discover, interpret, and disseminate knowledge about the natural world, the universe, and humanity, and to ensure that the Museum's work will continue to inspire future generations of children, adults, families, students, and teachers.

C. Chesek/AMNH

Please know how important it is for the entire Museum community to participate in *The New Challenge*. There are numerous opportunities for involvement, and gifts at all levels will make a lasting impact on the Museum's work. The Development Office is available to speak with our Members and friends about the many ways to support the campaign, and can design gift opportunities to specifically match a donor's interest. I look forward to keeping you apprised of our progress and hope that you will join us in this urgent and important mission to secure and strengthen this great institution by supporting *The New Challenge*. If you would like additional information, please call me at 212-769-5162 or Caralynn Sandorf, Senior Campaign Director, at 212-769-5220.

With many thanks for being a part of this wonderful Museum community,

Sincerely,

Lynn DeBow

Senior Vice President for Development and Membership

*As of 11/3/05

Give a Gift for All Seasons: AMNH Membership

Your friends and relatives can enjoy all the benefits of Membership, including complimentary Museum general admission and special exhibition tickets, a year's subscription to *Natural History* magazine and *Rotunda*, invitations to Members' previews, and discounts in Museum Shops and restaurants. Choose the Membership level and we'll do the rest. As a special holiday bonus, we'll include in the gift the updated *American Museum of Natural History: The Official Guide* (a $7.95 value).

Special offer expires December 31, 2005. Not valid for Members renewing their own Memberships.

1. Please send a one-year Membership at the category indicated to the person below:

❑ Individual $70 ❑ Dual $90 ❑ Family $115 ❑ Contributor $195

Recipient's Name _____

Street _____

City _____ State _____ Zip Code _____

2. Please send a one-year Membership at the category indicated to the person below:

❑ Individual $70 ❑ Dual $90 ❑ Family $115 ❑ Contributor $19

Recipient's Name _____

Street _____

City _____ State _____ Zip Code _____

Your Name _____

Street _____ City _____ State _____ Zip Code _____

❑ Enclosed is my check for $ _____ **OR**

❑ Please charge my: ❑ Visa ❑ MasterCard ❑ American Express

Card Number _____ Exp. Date _____ Signature _____

PEOPLE AT THE AMNH

J. Rotner/AMNH

Damaris Rodriguez

Scientific Assistant, Division of Vertebrate Zoology, Department of Ichthyology

As Damaris Rodriguez worked towards her master's degree in marine microbial ecology, she got her first glimpse behind the scenes at the Museum. One class allowed her and her fellow students to visit each scientific department and division at the Museum, to talk with scientists and collections managers, and to observe some of the Museum's collections and facilities. After that, she kept a watchful eye, and when she saw an opening in the Department of Ichthyology, she jumped at the chance to work at the Museum.

Now a Scientific Assistant in Ichthyology, Damaris speaks fondly of her 12 years at the Museum. Her main role is to maintain the department's collections: when specimens come into the lab, they are sorted, identified, catalogued, labeled, and finally stored.

Her job also sent her to Bolivia for three weeks to do fieldwork. There, she conducted sampling from new areas as well as added to a collection from an area that had been surveyed in the 1960s. "Being in the field, and being involved with a project from collection to storage—and everything in between—was truly gratifying."

At the Museum, she has also collaborated with Dr. Melanie Stiassny in the description of two new species of Bedotiidae from Madagascar, an accomplishment she is proud of.

Outside the Museum, Damaris spends most of her time with her family; her two daughters are 12 and 1. She is active in her older daughter's extracurricular activities, participating in fundraising and organization for her swim team.

Holiday Gift Baskets!

FREE Shipping!

Dinosaur Basket

Learn and play with these activity-filled baskets, brimming with books, games, puzzles, toys, and more, for ages 5–10. Each basket includes a FREE gift tin. Orders must be placed by December 10 to arrive in time for the holidays. Call our Personal Shopper at 1-800-671-7035. FREE shipping.

Space Basket

AMERICAN MUSEUM of NATURAL HISTORY

WWW.AMNH.ORG

General Information

HOURS

Museum: Daily, 10:00 a.m.–5:45 p.m.
The Rose Center remains open until 8:45 p.m. on Friday. The Museum is closed Thanksgiving and Christmas.
Space Show: Every half hour, Sunday–Thursday and Saturday, 10:30 a.m.–4:30 p.m., Friday, 10:30 a.m.–7:00 p.m.
Research Library: Tuesday–Thursday, 2:00–5:30 p.m.
Hours are subject to change.

ENTRANCES

During Museum hours, visitors may enter through the subway (lower level), Central Park West at 79th Street (second floor), and the Rose Center/81st Street entrances. The Columbus Avenue entrance is open on weekends and holidays. The 77th Street entrance is closed until further notice.

TRANSPORTATION AND PARKING

Subway: B (weekdays) or C to 81st Street; 1 to 79th Street
Bus: M7, M10, M11, or M104 to 79th Street; M79 to Central Park West
Parking Garage: Open daily, 8:00 a.m.–11:00 p.m.; enter from West 81st Street. Members receive a discounted rate of $10 if entering after 4:00 p.m. To receive this rate, you must have your parking ticket validated at the Security Desk (first floor, Central Park West entrance). For more information, call 212-313-7278.

FOOD SERVICE

Museum Food Court: Daily, 11:00 a.m.–4:45 p.m. (*lower level*)
Diner5aurus Café on 4: Saturday and Sunday, 11:00 a.m.–4:45 p.m (*fourth floor*)
Café 77: Saturday and Sunday, 11:00 a.m.–4:45 p.m (*first floor*)
Hours are subject to change.

MUSEUM SHOPS

The following Museum Shops are open during regular Museum hours:
Main Shop (*first and second floors*)
Dinostore (*fourth floor*)
Planetarium Shop (*Rose Center, lower level*)
Satellite Shop (*Rose Center, first floor*)
Butterfly Shop (*second floor*)
Dinosaurs Exhibition Shop (*fourth floor*)
Darwin Shop (*third floor*)

PHONE NUMBERS

Museum Information	212-769-5100
Membership Office	212-769-5606
Central Reservations	212-769-5200
Communications	212-769-5800
Development	212-769-5151
Discovery Tours	212-769-5700
Education	212-769-5304
Event & Conference Services	212-769-5350
Library Services	212-769-5400
Member Birthday Parties	212-769-5606
Museum Shop	800-671-7035
Natural History Magazine	646-356-6500
Patrons Circle	212-769-5153
Planetarium Information	212-769-5900
Planned Giving Office	212-769-5119
Volunteer Office	212-769-5566
Web Site	www.amnh.org

www.amnh.org

AMERICAN MUSEUM OF NATURAL HISTORY

Rotunda.
American Museum of Natural History
Received on: 12-05-05

THE AMERIC

Walk

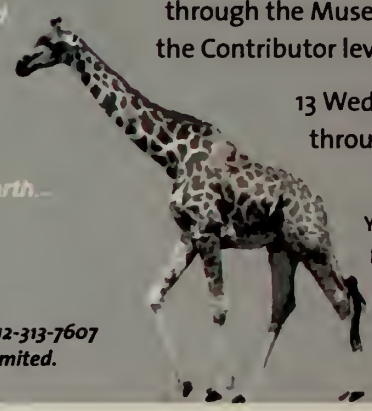
Exercise your body,

Educate your mind

Explore the world

Escape the cold,

Power-walk to the farthest corners of the Earth...



...with an intrepid band of early-morning movers and shakers. Join this Wednesday-morning fitness walk through the Museum for Members at the Contributor level ($195) and above.

13 Wednesdays, January 4, through March 29, 2006, 8:00–9:30 a.m.

You are invited to bring a guest to the first session kick-off event. Subsequent sessions are for registered Members only.

Call Joi B. Knight at 212-313-7607 to register. Space is limited.

Membership Department
Central Park West at 79th Street
New York, New York 10024-5192
www.amnh.org

rotunda

VOL. 32 NO. 1 JANUARY/FEBRUARY 2007

MEMBERS' NEWSLETTER

670
52
32
o. 1
an-Feb
007

AMERICAN MUSEUM OF NATURAL HISTORY

Museum Notes

A rare crystallized gold specimen from Leadville, Colorado, was formed from superheated gold-bearing water. | D. Finnin/AMNH

CURRENTLY ON VIEW

Gold

Through August 19, 2007
Gallery 3
Free for Members

This glittering exhibition explores the enduring fascination with this icon of wealth, beauty, and power, presenting the intriguing scientific and cultural story of one of the world's most prized natural resources. Rare natural specimens and significant cultural artifacts on exhibit include the famous La Trobe Nugget, gleaming pre-Columbian jewelry, an Oscar® award statuette, and more. Exhibits such as a room lined entirely in just three ounces of gold demonstrate gold's unique physical properties.

Gold is organized by the American Museum of Natural History, New York (www.amnh.org), in cooperation with The Houston Museum of Natural Science.

This exhibition is proudly supported by The Tiffany & Co. Foundation, with additional support from American Express® Gold Card.

The Butterfly Conservatory: Tropical Butterflies Alive in Winter

Through May 26, 2007
Whitney Memorial Hall of Oceanic Birds
Admission is by timed entry only.
Tickets are $10 for Members and $6 for Members' children.

A return engagement of this popular exhibition includes up to 500 live, free-flying tropical butterflies. Visitors can mingle with the butterflies and view illustrated displays that describe the butterfly life cycle, defense mechanisms, evolution, and conservation.

Yellowstone to Yukon

Through February 18, 2007
IMAX Corridor

This exhibition of spectacular photographs takes viewers on a journey through the wilderness as well as the rapidly developing areas of the North American West—from Wyoming to the Yukon Territory—to explore one of the most ambitious corridor initiatives to date.

This exhibition was developed by the American Museum of Natural History's Center for Biodiversity and Conservation in concert with the Yellowstone to Yukon Conservation Initiative and the Wilburforce Foundation and is made possible through their support. Additional generous support provided by the Woodcock Foundation.

Vital Variety

Ongoing
IMAX Gallery

Beautiful close-up photographs highlight the importance of the immense diversity of invertebrates and their critical role in the survival of humankind.

LAST CHANCE!

Lizards & Snakes: Alive!

Through January 7, 2007
Gallery 4
Free for Members

Live lizards and snakes are the center of attention in this engaging exhibition that explores these creatures' remarkable adaptations, including projectile tongues, deadly venom, amazing camouflage, and sometimes surprising modes of movement. Fossil specimens, life-size models, videos, and interactive stations complement the more than 60 live animals representing 26 species.

Lime swallowtail (Papilio demoleus) | H. Davies/AMNH

The cougar has rebounded from near-eradication by bounty hunters in the early 20th century. | © Daniel J. Cox/NaturalExposures.com

Lizards & Snakes: Alive! is organized by the American Museum of Natural History, New York (www.amnh.org), in collaboration with Fernbank Museum of Natural History, Atlanta, and the San Diego Natural History Museum, with appreciation to Clyde Peeling's Reptilan.

Lizards & Snakes: Alive! is made possible, in part, by grants from The Dyson Foundation and the Amy and Larry Robbins Foundation.

Voices from South of the Clouds

Through January 2
Akeley Gallery

Selected images from the Nature Conservancy's Photovoice project are displayed in this captivating exhibition that reveals the land and the people of China's Yunnan Province. This project puts the cameras in the hands of the villagers themselves, who use photography to chronicle their culture, religion, and daily life, as well as their interaction with the local environment, and whose voices are heard through statements about their work.

The exhibition is made possible by a generous grant from Eastman Kodak Company.

The presentation of this exhibition at the American Museum of Natural History is made possible by the generosity of the Arthur Ross Foundation.

Visitors are thrilled by the lastest Space Show, Cosmic Collisions. | D. Finnin/AMNH

HAYDEN PLANETARIUM SHOWS

Cosmic Collisions

Journey into deep space—well beyond the calm face of the night sky—to explore cosmic collisions, hypersonic impacts that drive the dynamic formation of our universe. Narrated by Robert Redford.

Cosmic Collisions *was developed by the American Museum of Natural History, New York (www.amnh.org), in collaboration with the Denver Museum of Nature & Science; GOTO, Inc., Tokyo, Japan; and the Shanghai Science and Technology Museum.*

Made possible through the generous support of CIT.

Cosmic Collisions *was created by the American Museum of Natural History with the major support and partnership of the National Aeronautics and Space Administration, Science Mission Directorate, Heliophysics Division.*

SonicVision

Fridays and Saturdays, 7:30 and 8:30 p.m.

SonicVision is a trip out of this world and into the minds of the universe's most creative digital animators, set to a soundtrack of today's coolest music.

Presented in association with MTV2 and in collaboration with renowned artist Moby.

IMAX MOVIES

Samuel J. and Ethel LeFrak Theater

For films and showtimes, visit www.amnh.org or call 212-769-5100.

IMAX films at the Museum are made possible by Con Edison.

COVER: *This montage of our solar system's planets (and Earth's Moon) does not include Pluto.* | NASA-JPL

AND DON'T MISS...

NEW! A Night at the Museum AMNH Sleepovers

Friday, January 19
Friday, February 9
Per person: $70 Members
For more information, call 212-769-5565.
To register, call 212-769-5200.
Pre-registration is required.

Imagine roaming the American Museum of Natural History at night! The lights dim as you head out with your flashlight looking for adventure. You find yourself in the Hall of North American Mammals, staring down a herd of wild buffalo. Climb some stairs and you're in the Age of the Dinosaurs, standing beneath a 65-million-year-old *T. rex*. Travel to the outer reaches of the cosmos in the Hayden Planetarium, where you'll witness entire galaxies colliding. Your night of adventure comes to a quiet close beneath the sea in the serene Milstein Hall of Ocean Life, where you'll camp out under a 94-foot-long blue whale.

Bring your sleeping bag and have the night of your life! These Nights at the Museum are a unique opportunity for children ages 8–12 and their guardians to experience the Museum like never before. Includes an evening snack and light breakfast.

An overnight stay at the Museum offers thrills galore. | D. Finnin/AMNH

AMNH Birthday Parties

Enchant your child on his or her special day with a Cosmic Blast-Off birthday party, featuring a tour through the Rose Center for Earth and Space and an exciting new Space Show that's sure to sweep your party guests off their feet and into a whole new world. (For astronauts ages 7 and up)

Linda Kaye's Partymakers also presents three other festive party themes: Underwater Treasures, Dinosaur Discoveries, and Safari Adventure. Each party offers a winning combination of education and entertainment. Parties are tailored for children ages 4 and up and are available seven days a week as a benefit to Contributor and higher-level Members only. For more information and to request a date, visit www.partymakers.com or call Linda Kaye's Partymakers at 212-288-7112.

SAVE A TREE

The current issue of *Rotunda* is now available online! Download it at www.amnh.org. If you'd like to stop receiving paper copies, please email members@amnh.org.

rotunda

ISSN 0194-6110
USPS Permit #472-650
Vol. 32, No. 1, January/February 2007

Lewis W. Bernard, *Chairman*
Ellen V. Futter, *President*
Lynn DeBow, *Senior Vice President for Development and Membership*
Rosemary Caulk, *Director of Membership*

Rotunda is published bimonthly, except for a combined issue in July/August/September and a single issue in December, by the Membership Office of the American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192. Phone: 212-769-5606. Web address: www.amnh.org. Museum Membership of $70 per year and higher includes a subscription to *Rotunda*.

© 2006 American Museum of Natural History.
Periodical postage paid at New York, NY, and at additional mailing offices. Postmaster: please send address changes to *Rotunda*, Membership Office, AMNH, at the above address. Printed in the USA.

Pluto's Last Stand By Neil deGrasse Tyson

It's official. Pluto is *not* a red-blooded planet. As decreed in August 2006 by a vote of the General Assembly of the International Astronomical Union, Pluto is now a "dwarf."

That vote overturned the Planet Definition Resolution proposal by the Planet Definition Committee, which had stated simply that round objects in orbit around the Sun are planets. Pluto is a round object; therefore Pluto is a planet. This definition would have given everyone the right to utter Pluto and Jupiter in the same breath even though Jupiter is 250 thousand times larger than Pluto.

Plutophiles had about a week to rejoice before learning the sad news that Pluto fails a new criterion—that a legitimate planet must also dominate the mass of its orbital zone. In other words, a full-fledged planet doesn't have to compete for "space." Poor Pluto, however, is crowded by thousands of other icy bodies, many of commensurate size.

Embarrassing as it was to us all, the term "planet" had not been formally defined since the time of ancient Greece, when the word simply meant "wanderer." Back then—and it remains

IAU members vote on Pluto's status. | IAU/Lars Holm Nielsen

true today—the naked-eye sky contains seven celestial objects that move against the background stars: Mercury, Venus, Mars, Jupiter, Saturn, the Sun, and the Moon. So influential were these wanderers on culture that the names for our seven days of the week can be traced via Roman and Norse gods to these seven objects.

But in 1543, Nicolaus Copernicus published his newfangled account of a sun-centered universe, which confounded the wanderer classification scheme. Instead of being stationary in the middle of things, Earth moved around the Sun just like everybody else. And from that moment onward, the term "planet" had no official meaning at all. Astronomers just silently agreed that whatever orbits the Sun is a planet. And whatever orbits a planet is a moon.

This would not be a problem if cosmic discovery had frozen in time. But shortly thereafter, we learned that comets orbit the Sun, too, and are not, as was long believed, local atmospheric phenomena. They're icy objects on elongated orbits that throw a long tail of evaporated gases as they near the Sun. Are they planets too?

How about the craggy chunks of rock and metal that orbit the Sun in a region between Mars and Jupiter? Tens of thousands roam there. Are they planets? When the first of these objects was sighted in 1801, it was named Ceres and dubbed a planet. With the discovery of dozens more, however, it became clear that this new community of objects deserved its own classification.

Meanwhile, the traditional planets don't fit into one strict category, either. Mercury, Venus, Earth, and Mars form a family of their own, being relatively small and rocky, while Jupiter, Saturn, Uranus, and Neptune are large, gaseous, have many moons, and bear rings.

IAU/Martin Kornmesser

Neil deGrasse Tyson | Dan Deitch

And what's going on beyond Neptune? Beginning in 1992, distant icy bodies were discovered that looked and behaved a lot like Pluto. A new swath of populated real estate came to our attention, akin to the discovery of the asteroid belt two centuries before. Known as the Kuiper belt, in honor of the Dutch-born American astronomer Gerard Kuiper who predicted its existence, this region of the solar system contains Pluto, one of its largest members. But Pluto had been called a planet since its discovery in 1930. So should all Kuiper belt objects be called planets?

It makes no sense to argue about whether an object is or is not a planet when the word itself does not have a formal definition. Consider that the geocentric universe contained seven planets. Then what became the solar system contained six. Then seven again, with the discovery of Uranus. Then eleven, with the discovery of the four largest objects in the zone between Mars and Jupiter. Then seven once again, after these four planets, and others yet to be discovered in the zone, were demoted to asteroids. Then eight, with the discovery of Neptune.

Then the familiar nine, with the discovery of Pluto—presumed to be much, much larger at the time than refined measurements ultimately showed it to be. (Pluto is smaller than six moons in the solar system, Earth's Moon included.) And then for a week, there were twelve planets: the roundness resolution included Ceres, the only round asteroid; Pluto's moon Charon, which is unnaturally large compared with Pluto; and 2003 UB-313, temporarily but affectionately called Xena, named for the kitschy, leather-clad, medieval warrior princess from television. And now, officially, we are back to eight—the nine you memorized in grade school, minus Pluto.

If my overstuffed inbox is any indication, planetary enumeration remains a major pastime of the elementary schools and a deep concern of the mainstream media. Counting planets is what allows you to invent clever mnemonics to remember them in sequence from the Sun, such as My Very Educated Mother Just Served Us Nine Pizzas. Or its likely successor: My Very Educated Mother Just Served Us Nachos.

But where do you go from there? Because of exercises such as these, elementary school curricula have unwittingly stunted an entire generation of children by teaching them that a memorized sequence of planet names is the path to understanding the solar system. The word "planet" itself continues to garner profound significance in our hearts and minds. This was surely justifiable in the days before telescopes could observe planets' atmospheres, before space probes landed on planets' surfaces, before we learned that icy moons make fertile targets for astrobiologists, or before we understood the history of asteroid and comet collisions. But today, the rote exercise of planet-counting rings hollow, and impedes the inquiry of a vastly richer landscape of science drawn from all that populates our cosmic environment.

Suppose other properties are what matter to you. Suppose instead, you care about ring systems, or density, or size, or mass, or composition, or weather, or state of matter, or proximity to the Sun, or formation history. These criteria represent demographic slices that reveal much more about an object's identity than whether or not its self-gravity made it round, or whether or not it's the only one of its kind in the neighborhood.

So why not think of the solar system as families of objects with like properties, and the way you organize these objects is up to you. If you're interested in cyclones, then you can group Earth and Jupiter. Pluto's "death" can thus mark the birth of a whole new way of classifying our cosmic neighbors.

Artist's conception of a spacecraft approaching Pluto. Pluto's moon Charon is seen beyond. | NASA-JPL, Michael W. Carroll

Adapted from "A Death in the Solar System," which appeared in the November, 2006, issue of *Discover* magazine (www.discover.com).

Neil deGrasse Tyson is the Frederick P. Rose Director of the Hayden Planetarium and an astrophysicist with the American Museum of Natural History. He is currently writing *The Pluto Files*, which highlights five years of mail he received from angry elementary school children and from opinionated adults. He will speak on his latest book, *Death by Black Hole*, on February 13, 2007; see page 6.

Members' Programs

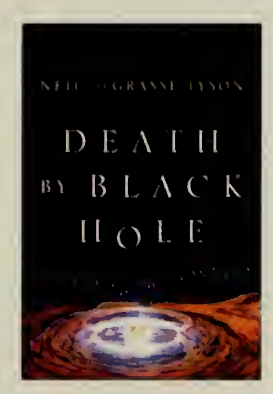
Programs are available to Members only unless a non-Member's price is given.

LECTURE

Death by Black Hole: And Other Cosmic Quandaries

Tuesday, February 13 ML021307
7:00 p.m.
Kaufmann Theater
$12 ($15 Non-Members)

Neil deGrasse Tyson, Frederick P. Rose Director of the Hayden Planetarium, has compiled his favorite essays in his book *Death by Black Hole: And Other Cosmic Quandaries*. In this talk, Tyson introduces readers to the physics of black holes by explaining just what would happen to your body if you fell into one and assails the movie industry's feeble efforts to get its night skies right, all while simplifying some of the most complex concepts in astrophysics.



Uncertainty: Einstein, Heisenberg, Bohr, and the Struggle for the Soul of Science

Thursday, March 1 ML030107
7:00 p.m.
Kaufmann Theater
$12 ($15 Non-Members)

In 1927, the young German physicist Werner Heisenberg introduced his uncertainty principle, which undermined the cherished belief that science could learn everything about the physical world. Astrophysicist and science writer David Lindley discusses this remarkable story of the theory that ignited a battle among the greatest scientific minds of the 20th century in his book *Uncertainty: Einstein, Heisenberg, Bohr, and the Struggle for the Soul of Science*.

Dunkleosteus | D. Finnin/AMNH

Big Fish

Tuesday, March 6 ML030607
7:00 p.m.
Kaufmann Theater
$12 ($15 Non-Members)

Two-thirds of our planet is covered by water, home to both salt- and freshwater giants. Learn about the apex predators of the sea, the largest bluefin tuna ever caught (1,496 pounds), and extinct giant fishes. Richard Ellis, author and Research Associate at the Museum, will discuss what scientists have learned from these leviathans and what might remain to be discovered.

BEHIND-THE-SCENES TOUR

Insect Investigators

Wednesday, March 21 MB032107A, B, C
6:30, 7:00, or 7:30 p.m.
$30

What possesses some people to study bed bugs? Find out on this rare behind-the-scenes tour of the Museum's Division of Invertebrate Zoology, which houses the world's largest collection of insects and spiders. Forensic entomologist Louis Sorkin will discuss how his knowledge of bugs helps in criminal and legal investigations and paleoentomologist Paul Nascimbene will show off the latest discoveries in ancient amber. Note that live animals may be displayed during this program.

WALKING TOURS

Winter Walk in Northern Central Park

Saturday, March 3 MW030307A
10:00 a.m.–11:30 p.m.

Winter Walk in Southern Central Park

Saturday, March 3 MW030307B
12:00 noon–1:30 p.m.

$22 each; $40 for both

Are you experiencing cabin fever? Join geologist Sidney Horenstein to explore the wild, rocky, and wooded terrain of northern Central Park. View the vestiges of a natural stream that flowed through the park, and examine many interesting botanical and geological features, including the park's only glacial pothole. Venture south and enjoy a peaceful walk while discovering how history, architecture, and urban growth correspond to the area's geology.

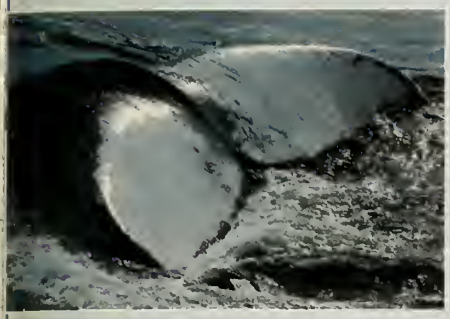
HALL TOURS

Dressing Up

Sunday, February 18 MH021807
3:00–4:30 p.m.
Portrait Room
Free (reservations required)

Masks, headdresses, and costumes have complex stories that help anthropologists learn more about the beliefs and daily customs of various cultures. Explore the halls with Museum Tour Guide Berna Villiers as she discusses why people have been so infatuated with costumery through the ages, from the stylings of the Japanese drama called *Nō* to the extraordinary feathered headdresses from the Amazon.

For tickets, call 212-769-5200, Monday–Friday, 9:00 a.m.–5:00 p.m., or visit www.amnh.org. Please have ready your credit card, your Membership number, and the program code. All Members' programs require advance registration.



Scott Sobel, 2006

EXPEDITION

Whale Watch Weekend

Friday, May 18, 9:00 a.m.–
Sunday, May 20, 9:00 p.m.
MO051807
$635 double occupancy
$135 additional for single occupancy

Discover the ecological riches of Cape Cod Bay, with its diverse seabirds and marine animals. Museum educator Jay Holmes leads a three-day excursion to historic Provincetown, Massachusetts, that will feature whale watching, bird walks, and a New England lobster bake. Enjoy three chartered whale watch cruises where naturalists will identify the birds and whales that migrate during the spring. Visit the Mystic Aquarium and take a guided bird walk through the Massachusetts Audubon Society's Wellfleet Bay Wildlife Sanctuary. Although whale sightings vary and cannot be guaranteed, the weekend will provide new experiences as well as fun! Cost includes transportation by private coach, meals at the hotel, boat excursions, admissions, and two nights lodging (double or single occupancy) at the Provincetown Inn Seaside Resort overlooking scenic Provincetown Harbor.

That's Entertainment!

Sunday, February 25 MH022507
3:00–5:00 p.m.
Portrait Room
Free (reservations required)

Journey through the Museum's halls with Tour Guides Louise Cherkis and Charles T. Reiser as they discuss scenes from movies that take place at the Museum and separate fact from fiction in Hollywood's storylines. Enjoy a video presentation followed by some cinematic sleuthing complete with a viewing guide that will enable you to detect some of the errors in popular films.

Meet the Family

Sunday, March 4 MH030407
3:00–4:30 p.m.
Portrait Room
Free (reservations required)

Join Museum Tour Guide Norman Rothwell for a unique tour. Trace the evolutionary path of *Homo sapiens* and our early ancestors. Explore the relationship of humans to other primates, and discover the latest tools and techniques scientists use to study the origins of humankind.

Culture and Glittering Gold

Sunday, March 11 MH031107
3:00–4:30 p.m.
Portrait Room
Free (reservations required)

Join Museum Tour Guide Marjorie Kagan to discover how humankind's imagination and creativity has transformed gold from merely a physically remarkable metal into a substance of extraordinary meaning. Visit the new exhibition, *Gold*, before journeying to various culture halls to uncover more golden treasures.

ADULT WORKSHOP

Form and Function of Botanical Design

Wednesday, February 28 MA022807
6:00–8:00 p.m.
$40

Explore the inner cellular beauty of plants using a microscope and other tools while learning about the connections between form and function in the plant kingdom. This interactive workshop, led by Museum educator Amy O'Donnell, will investigate plant anatomy and physiology from both artistic and scientific perspectives and will include a brief overview of plant diversity. A sketchpad and drawing implements are recommended.

Spectrum of Life, Hall of Biodiversity | D. Finnin/AMNH

FAMILY & CHILDREN'S PROGRAMS

Bones, Brains, and DNA

Saturday, February 10 ML021007
2:00 p.m.
Kaufmann Theater
$12 Members, $8 Members' children
($15 Non-Members', $10 Non-Members' children)

Rob DeSalle, Curator in the Division of Invertebrate Zoology, has coauthored an engaging illustrated book for children 8 and up that explains our human origins, *Bones, Brains, and*

Gorilla diorama | D. Finnin and J. Beckett/AMNH

DNA, with Ian Tattersall, Curator in the Division of Anthropology. Using Museum mice named Wallace and Darwin as narrators, DeSalle will examine paleontological and genetic evidence relevant to human evolution.

Going Bananas!

Sunday, February 11 MC021107
10:30 a.m.–12:00 noon (ages 5–7)
1:30–3:00 p.m. (ages 8 and up)
Rose Center Classroom
$28

Primates range from the tiny pygmy mouse lemur to the massive mountain gorilla. With sketchbook in hand, join educator Arthur Horan to learn about the behavior and habitats of these intriguing species. Then, return to the classroom for more drawing activities and a hands-on look at a variety of bones and skeletal mounts.

Fun with Fossils: Clues to the Past

Sunday, March 4 MC030407
10:30 a.m.–12:00 noon (ages 5–7)
1:30–3:00 p.m. (ages 8 and up)
Rose Center Classroom
$28

While visiting the Wallace Wing of Mammals and Their Extinct Relatives, do you find that some of these fossils look familiar? Paleontologists study fossils and use these clues to learn how mammals lived and evolved as well as what the world was like in ancient times. Discover a 12-million-year-old relative of the horse and the mummified skin of a 25,000-year-old baby mammoth. Join Museum educator Arthur Horan and help solve these mysteries by creating your own fossil cast.

PREVIOUSLY LISTED

Limited space may still be available for these programs.

Behind the Scenes in the Frozen Tissue and Molecular Labs

Wednesday, January 17 MB011707A, B, C
6:30, 7:00, or 7:30 p.m.
$30

Join Rob DeSalle, Curator of the Molecular Systematics Laboratories, for a tour of the Museum's DNA sequencing facilities. Julie Feinstein, Collection Manager of the Ambrose Monell Cryo Collection, will then lead a tour of the frozen tissue lab. Then, Director of Conservation Genetics George Amato will discuss the latest techniques in conservation biology, molecular ecology, and wildlife forensics.

Behind the Scenes in the Hayden Planetarium

Wednesday, February 7 MB020707
6:30–8:00 p.m.
$30

Carter Emmart, Director of Astrovisualization, leads a virtual tour of the making of *Cosmic Collisions*. Then, Matthew Dougherty, Zeiss IX Programmer, will offer an up-close look at how the Museum's custom-made Star Projector works.

The Upside of Down

Thursday, January 25 ML012507
7:00 p.m.
Kaufmann Theater, first floor
$15 ($12 Members)

Thomas Homer-Dixon suggests that the pressures we are putting on our planet are likely leading to an imminent breakdown in the systems that sustain us. His latest book, *The Upside of Down: Catastrophe, Creativity, and the Renewal of Civilization*, shows what we can learn from these crises and how we can mitigate them.

WHAT IN THE WORLD IS THIS?

AMNH

A. *a slice of a nectarine*
B. *a fossilized dinosaur egg*
C. *a frozen sliver of whale tissue*
D. *a sample of tissue from a penguin*

Readers of Scholastic's *Science World* and *SuperScience* magazines know that the answer is C, of course! That's because a recent article interviewing Julie Feinstein, Collections Manager of the Museum's Frozen Tissue Lab, gave them a peek into the lab's DNA-preserving cryovats. The article is part of the second year of Science Explorations, a partnership between the Museum and Scholastic, the global children's education company. Through vivid photographs, lively writing, and fascinating interviews with AMNH scientists and curators, the series of articles and Web quests brings science to life for readers in grades 3 through 10. Upcoming features explore flora and fauna deep in the Vietnamese jungle and unravel the science behind mythic beasts like dragons and unicorns. Learn more at www.scholastic.com/scienceexplorations.

Make a Difference: Support Public Programs

Take a closer look at the fine print under the listings for the Museum's public programs and chances are you'll see a line of recognition for someone who underwrote a particular program. We like to think of this as our thank-you note to valued supporters for their generosity. Can you imagine yourself being part of this very special group?

Dancers from Yunnan Province, China, share their art with Museum audiences. | R. Mickens/AMNH

The need has never been more urgent. Every day, news reports on everything from global warming to avian flu to the cultural differences at work in world affairs underscore the centrality of science in our lives. Accurate information and understanding are critical.

The American Museum of Natural History is a trusted place where, for generations, people have turned to learn about themselves and the world in which they live.

Informative and enlightening, the Museum's public programs offer timely and educational opportunities to people of all ages, from toddlers to adults, in such thought-provoking programs as a panel discussion on science and faith held in conjunction with our recent groundbreaking exhibition *Darwin*, ongoing science and nature classes for preschoolers, genomics workshops for middle-school students, lectures for adults, and multicultural celebrations for families—in all, some 2,000 hours of programming each year with world-class scientists, visiting lecturers, and naturalists.

Will you help? The Museum invites you, its Members and friends, to consider making a gift to underwrite one of the hundreds of public programs offered this coming year, programs designed to meet the interests and needs of learners of all ages. For example, Gateway storytime sessions in the Discovery Room enthrall children, while astronomers from amateur to advanced keep abreast of the latest findings with Hayden Planetarium lectures.

By underwriting a public program, you will ensure that our visitors can

Chinese performers bring their traditions to the Museum during the ongoing Global Weekends series. | R. Mickens/AMNH

continue to explore and understand the important issues of the day. Opportunities are available at a wide range of gift levels, and we will gladly recognize your support in the Museum Calendar and all program materials. For more information about how you can support the Museum's public programs, please call Anne Shiva in the Development Office at 212-769-5207.

2007 ISAAC ASIMOV MEMORIAL DEBATE

Pioneer Anomaly

Monday, March 26 HL032607
7:30 p.m.
LeFrak Theater
$12 ($14 Non-Members)

The two *Pioneer* spacecrafts launched in the 1970s have left our solar system and are headed towards interstellar space. Mysteriously, their telemetry, which gives us their precise positions in space, does not match where our laws of physics say they should be. Join us as a panel of experts debates possible reasons for this discrepancy, an enigma that has been dubbed the "Pioneer Anomaly."

The late Dr. Isaac Asimov, one of the most prolific and influential authors of our time, was a dear friend and supporter of the American Museum of Natural History. In his memory, the Hayden Planetarium is honored to host the annual Isaac Asimov Memorial Debate—generously endowed by relatives, friends, and admirers of Isaac Asimov and his work—bringing the finest minds in the world to the Museum each year to debate pressing questions on the frontier of scientific discovery. Proceeds from ticket sales of the Isaac Asimov Memorial Debates benefit the scientific and educational programs of the Hayden Planetarium.

Public Programs

These programs are available to the general pu
Call 212-769-5200 for information and tic

LIVING IN AMERICA

The Allure of Gold

Three Sundays, January 14, 21, 28
1:00–5:00 p.m.
Kaufmann and Linder Theaters, first floor
Free with Museum admission

This year's Living in America series traces the historical influence of this glittering symbol of wealth, power, and beauty from ancient times through modern America with performances, discussions, and films for adults and families.

AFRICAN-AMERICAN HERITAGE MONTH

Dedicated to Dunham

Sunday, February 25
1:00–5:00 p.m.
Kaufmann and Linder Theaters, first floor
Free with Museum admission

A day of performances, workshops, and symposia celebrate the life and legacy of anthropologist, dancer, choreographer, and teacher Katherine Dunham. An array of local companies, national dance troupes, and noted educators and historians will participate in this day, dedicated to a woman who founded the first self-sustaining African-American dance troupe.

Dedicated to Dunham is coproduced with Community Works and New Heritage Theatre Group.

Global Weekends are made possible, in part, by The Coca-Cola Company, the City of New York, the New York City Council, and the New York City Department of Cultural Affairs. Additional support has been provided by the May and Samuel Rudin Family Foundation, Inc., the Tolan Family, and the family of Frederick H. Leonhardt.

Newton's Alchemy

Thursday, January 11 EL011107
7:00 p.m.
Linder Theater, first floor
$15 ($13.50 Members)

Join William Newman, Department of History and Philosophy of Science, Indiana University, as he discusses *The Chymistry of Isaac Newton*, a project to produce an online edition of Newton's laboratory notebooks. Four fascinating experiments will be replicated, including the transmutation of silver into gold.

Courtesy of World Sake Imports

Adventures in the Global Kitchen: Golden Sake

Tuesday, January 16 EL011607
7:00 p.m.
Wallach Orientation Center
$50 ($45 Members)

The Japanese adoration of gold is seen in its arts and temples, and even extends to "golden sake." Bon Yagi, Ken Kusakabe, and Michael John Simkin offer tastings of golden sakes and describe Japan's lasting artistic use of this metal.

Aglow in the Dark: Art/Science and Bioluminescence

Thursday, January 25 EL012507
7:00 p.m.
Linder Theater, first floor
$15 ($13.50 Members)

The beautiful natural phenomenon of bioluminescence inspires scientific research as well as art and architecture. A panel of scientists and artists will share their findings and their creations.

This program is made possible, in part, by the Allaire Family and Ruth A. Unterberg.

Lunchtime Winter Bird Walks

Three Tuesdays, January 30–February 6 EK013007
12:00 noon–1:30 p.m.
$75

Catch a peek at owls, songbirds, and woodpeckers in the woods; seed-eating birds in the fields; and many species of ducks and gulls in the lake as Paul Sweet, Collections Manager i the Museum's Department of Ornithology, guides you through these three Central Park habitats.

Dr. Nebula's Laboratory: Life with Lucy

Sunday, February 18 RC021807
2:00 p.m.
Kaufmann Theater, first floor
$8 children, $10 adults

What would it be like to live, work, and play with Lucy, a three-million-year-old human ancestor? Come join Dr. Nebula's apprentice, Scooter, as she explores the mystery, myth, and science of our earliest ancestors.

This program is made possible, in part, by an anonymous donor.

The jellyfish Aequorea victoria | Claudia Mills

AMERICAN MUSEUM OF NATURAL HISTORY

MUSEUM SHOP

Puzzle Over These Models

onfly
g x 19" wide

T. rex
24" long x 15.5" high

osaurus
g x 11" high

Butterfly
14" long x 12" high

Once you've solved these cool 3-D puzzles, you'll have an intricate model to display—or to take apart and put together again since no glue or tools are required. Kits include everything you need: interlocking pieces, instructions, and fact sheets about each creature. Learn while you create! Ages 5 and up.

To place orders, call our Personal Shopper at 1-800-671-7035 or shop at

www.amnh.org

Rotunda.
American Museum of Natural History
Received on: 01-04-07

General Information

HOURS

Museum: Daily, 10:00 a.m.–5:45 p.m.
The Museum is closed Thanksgiving and Christmas.
Space Show: Every half hour, 10:30 a.m.–4:30 p.m.
Research Library: Tuesday–Thursday, 2:00–5:30 p.m.
Hours are subject to change.

ENTRANCES

During Museum hours, visitors may enter through the subway (lower level), Central Park West at 79th Street (second floor), and the Rose Center/81st Street entrances. The Columbus Avenue entrance is open on weekends and holidays. The 77th Street entrance is closed until further notice.

TRANSPORTATION AND PARKING

Subway: B (weekdays) or C to 81st Street;
1 to 79th Street
Bus: M7, M10, M11, or M104 to 79th Street;
M79 to Central Park West
Parking Garage: Open daily, 8:00 a.m.–11:00 p.m.; enter from West 81st Street. Members receive a discounted rate of $10 if entering after 4:00 p.m. To receive this rate, you must have your parking ticket validated at the Security Desk (first floor, Central Park West entrance). For more information, call 212-313-7278.

FOOD SERVICE

Museum Food Court: Daily,
11:00 a.m.–4:45 p.m. (*lower level*)
Starlight Café: Saturday and Sunday,
11:00 a.m.–4:45 p.m (*first floor*)
Gold Nugget Café on 4: Saturday and Sunday,
11:00 a.m.–4:45 p.m (*fourth floor*)
American Soup Café: Seasonal hours, as posted (*lower level*)
Hours are subject to change.

MUSEUM SHOPS

The following Museum Shops are open during regular Museum hours:
Main Shop (*first and second floors*)
Dinostore (*fourth floor*)
Planetarium Shop (*Rose Center, lower level*)
Cosmic Shop (*Rose Center, second floor*)
Butterfly Shop (*second floor*)
Gold Shop (*third floor*)
Online Shop (*www.amnh.org*)

PHONE NUMBERS

Museum Information	212-769-5100
Membership Office	212-769-5606
Central Reservations	212-769-5200
Communications	212-769-5800
Development	212-769-5151
Discovery Tours	212-769-5700
Education	212-769-5304
Event & Conference Services	212-769-5350
Library Services	212-769-5400
Member Birthday Parties	212-769-5606
Museum Shop	800-671-7035
Natural History Magazine	646-356-6500
Patrons Circle	212-769-5153
Planetarium Information	212-769-5900
Planned Giving Office	212-769-5119
Volunteer Office	212-769-5566
Web Site	www.amnh.org

www.amnh.org

AMERICAN MUSEUM OF NATURAL HISTORY

The A

Wa

Exercise your body,

Educate your mind,

Explore the world,

Escape the cold,

Power-walk to the farthest corners of the Earth...

with an intrepid band of early-morning movers and shakers. Join this Wednesday-morning fitness walk through the Museum for Members at the Contributor level ($195) and above.

13 Wednesdays, January 3, through March 28, 2007, 8:00-9:30 a.m.

You are invited to bring a guest to the first session kick-off event. Subsequent sessions are for registered Members only.

Call Joi B. Knight at 212-313-7607 to register. Space is limited.

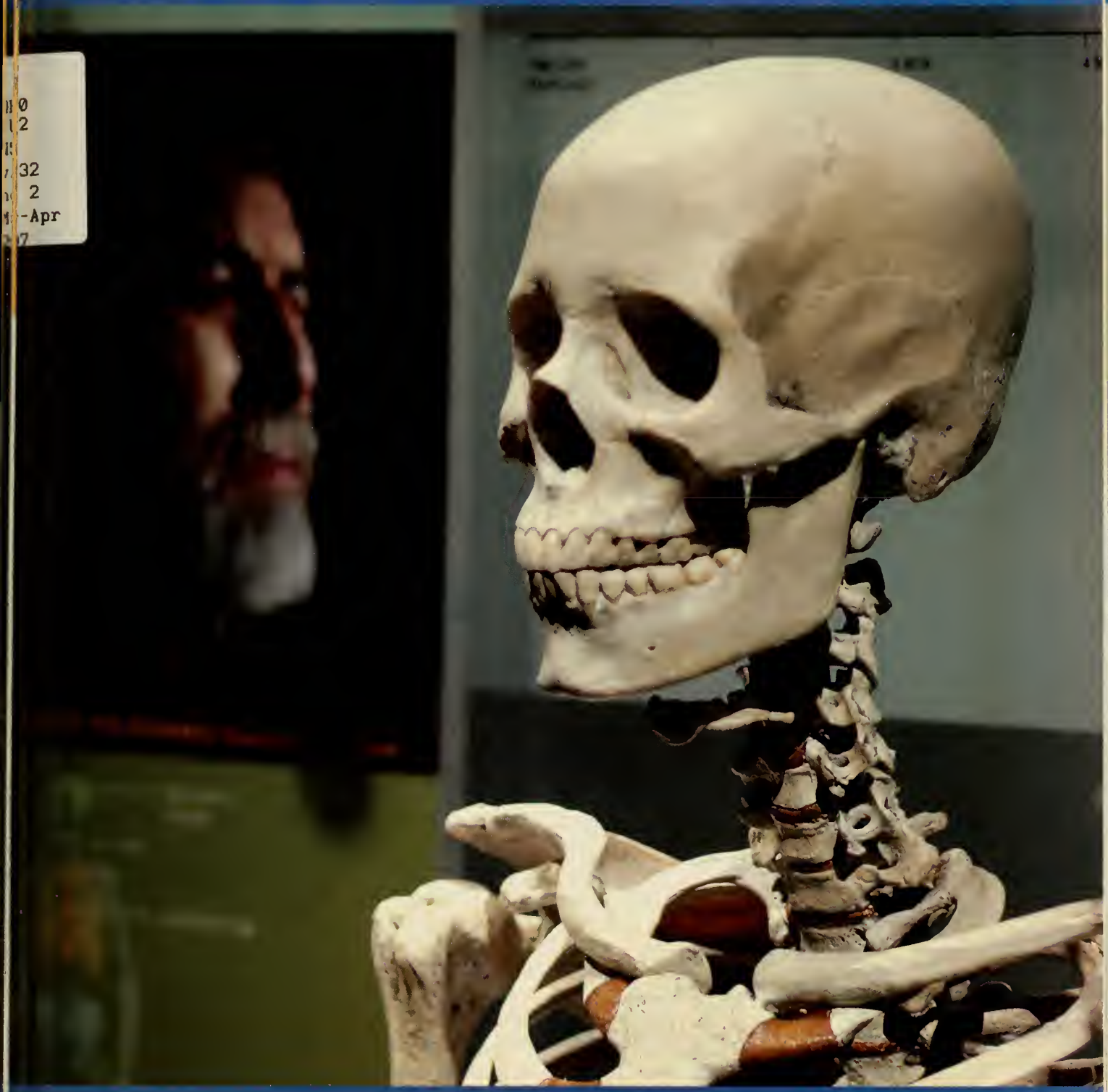
Membership Department
Central Park West at 79th Street
New York, New York 10024-5192
www.amnh.org

rotunda

L. 32 NO. 2 MARCH/APRIL 2007

MEMBERS' NEWSLETTER

0
2
32
2
-Apr
7



AMERICAN MUSEUM OF NATURAL HISTORY

Museum Notes

D. Finnin/AMNH

CURRENTLY ON VIEW

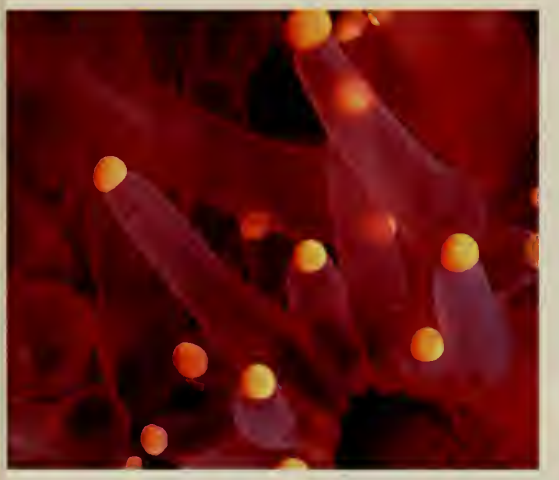
Gold

Through August 19, 2007
Gallery 3

This glittering exhibition explores the enduring fascination with this icon of wealth, beauty, and power, presenting the intriguing scientific and cultural story of one of the world's most prized natural resources.

Gold is organized by the American Museum of Natural History, New York (www.amnh.org), in cooperation with The Houston Museum of Natural Science.

This exhibition is proudly supported by The Tiffany & Co. Foundation, with additonal support from American Express® Gold Card.



Gold-tipped anemone | Idell Conaway

The Butterfly Conservatory: Tropical Butterflies Alive in Winter

Through May 28, 2007
Whitney Memorial Hall of Oceanic Birds
Admission is by timed entry only.

Tickets are $10 for Members and $6 for Members' children.

A return engagement of this popular exhibition includes up to 500 live, free-flying tropical butterflies. Visitors can mingle with the butterflies and view illustrated displays that describe the butterfly life cycle, defense mechanisms, evolution, and conservation.

Undersea Oasis: Coral Reef Communities

Through January 13, 2008
Akeley Gallery

Brilliant color photographs by Idell Conaway capture the dazzling invertebrate life that flourishes on coral reefs. In a diverse and delicate ecosystem, creatures from sea squirts and anemones to the elusive chambered nautilus depend on the reef to survive.

Beyond

Opens April 14, 2007
IMAX Corridor
Free with Museum admission

Writer, filmmaker, and photographer Michael Benson takes visitors on a journey through our solar system with some of the most stunning images ever captured by unmanned space probes. Many of these alien, exquisite images of the varied terrain of our planetary neighbors have never before been rendered in full color.

The presentation of both Undersea Oasis *and* Beyond *at the American Museum of Natural History is made possible by the generosity of the Arthur Ross Foundation.*

Vital Variety

Ongoing
IMAX Gallery

Beautiful close-up photographs highlight the importance of the immense diversity of invertebrates and their critical role in the survival of humankind.

HAYDEN PLANETARIUM SHOWS

Cosmic Collisions

Journey into deep space—well beyond the calm face of the night sky—to explore cosmic collisions, hypersonic impacts that drive the dynamic formation of our universe. Narrated by Robert Redford.

Cosmic Collisions *was developed by the American Museum of Natural History, New York (www.amnh.org), in collaboration with the Denver Museum of Nature & Science; GOTO, Inc., Tokyo, Japan; and the Shanghai Science and Technology Museum.*

Made possible through the generous support of CIT.

Cosmic Collisions *was created by the American Museum of Natural History with the major support and partnership of the National Aeronautics and Space Administration, Science Mission Directorate, Heliophysics Division.*

Cosmic Collisions *shows the formation of our Moon.* | AMNH

COVER: *The spectacular new Anne and Bernard Spitzer Hall of Human Origins opened in February 2007.* *See p. 4.* | R. Mickens/AMNH

;onicVision

Fridays and Saturdays,
:30 and 8:30 p.m.

;onicVision is a trip out of this world and into the minds of the universe's most creative digital animators, set to a soundtrack of today's coolest music.

Presented in association with MTV2 and in collaboration with renowned artist Moby.

MAX MOVIES

Samuel J. and Ethel LeFrak Theater

For films and showtimes, visit www.amnh.org or call 212-769-5100.

MAX films at the Museum are made possible by Con Edison.

AND DON'T MISS...

Evolution and Development of Self Regulation

77th James Arthur Lecture on the Evolution of the Human Brain
Monday, March 19
6:00 p.m.
Kaufmann Theater
Free

Michael Posner, professor emeritus at the University of Oregon, examines the anatomy, neurology, and genetics behind humans' voluntary control of their thoughts, emotions, and actions. His research focuses on the neural networks, such as attention, underlying the development of this type of self-regulation.

Thinking Small: Microbial Diversity and Its Role in Conservation

Center for Biodiversity and Conservation
12th Annual Spring Symposium
Thursday and Friday, April 26 and 27
9:00 a.m.–5:00 p.m.
Kaufmann Theater
$100 (Members); $125 after March 30

Microscopic organisms comprise the majority of life on Earth, and we are discovering more all the time. They play a multitude of roles in every ecosystem. While recent attention has focused on microbial involvement in spreading disease, many microorganisms are beneficial or even crucial to the sustainability of life yet may be threatened by human activities. This year's CBC symposium brings together scientists, resource managers, policy-makers, and others to raise the profile of these unseen organisms and stress the critical need to include them in conservation research and planning.

An elegant trogon | Jo Ellen Ryan

Birding in the Southwest

Sunday–Friday, April 22–27
Sunday–Friday, May 6–11

Cave Creek Canyon in southeastern Arizona is a true biodiversity "hotspot," home to a wide range of wildlife, including hundreds of species of birds. The Museum's Southwestern Research Station there offers the perfect birding getaway.

Local guides take birders on daily field trips, describing the natural history of the region along the way. Optional owl walks are offered at night.

The six-day, five-night program provides cabin housing, three meals a day including delicious sack lunches and bottled water when needed, a gift bag with coupons to the Station's gift shop, and more.

Museum Members receive a 10% discount. For more information on the bird and nature tours, including additional dates, visit http://research.amnh.org/swrs/birding%20paradise.htm.

AMNH Birthday Parties

Our Safari Adventure Birthday is chock full of fun facts: Did you know that elephants spend 19 hours a day eating—up to 500 pounds of vegetation? Linda Kaye's Partymakers also presents Underwater Treasures, Dinosaur Discoveries, and Cosmic Blastoff party themes, each with a winning combination of education and entertainment.

Parties are tailored for children ages 4 and up and are available seven days a week as a benefit to Contributor and higher-level Members only. For more information and to request a date, visit www.partymakers.com or call Linda Kaye's Partymakers at 212-288-7112.

SAVE A TREE

The current issue of *Rotunda* is now available online! Download it at www.amnh.org. If you'd like to stop receiving paper copies, please email members@amnh.org.

rotunda

ISSN 0194-6110
USPS Permit #472-650
Vol. 32, No. 2, March/April 2007

Lewis W. Bernard, *Chairman*
Ellen V. Futter, *President*
Lynn DeBow, *Senior Vice President for Development and Membership*
Rosemary Caulk, *Director of Membership*

Rotunda is published bimonthly, except for a combined issue in July/August/September and a single issue in December, by the Membership Office of the American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192. Phone: 212-769-5606. Web address: www.amnh.org. Museum Membership of $70 per year and higher includes a subscription to *Rotunda*.

© 2006 American Museum of Natural History.

Periodical postage paid at New York, NY, and at additional mailing offices. Postmaster: please send address changes to *Rotunda*, Membership Office, AMNH, at the above address. Printed in the USA.

Spitzer Hall of Human Origins

What makes us human? The exciting new Anne and Bernard Spitzer Hall of Human Origins at the American Museum of Natural History explores that very question and suggests that the answer lies, in large part, in our ability to think symbolically. Here, in the vivid imagery of sculpture, painting, video, and the ultimate set of symbols—language—the fascinating and still-unfolding story is told of how human beings came to be the distinct creatures we are—and how such creativity lies at the heart of what sets us apart from the other animals.

Generously supported by lead benefactors and Museum friends Anne and Bernard Spitzer, and co-curated by Ian Tattersall, AMNH Curator in the Division of Anthropology, and Rob DeSalle, Curator of the Museum's Sackler Institute of Comparative Genomics, the new Spitzer Hall is the successor to the Museum's original Hall of Human Biology and Evolution. It draws on the latest hominid finds by Museum scientists and their colleagues, combining, for the first time anywhere, cutting-edge genomic research with millennia-old fossils to present the most up-to-date evidence of human evolution.

At the entrance to the Spitzer Hall of Human Origins are skeletons of a modern human and our chimpanzee and Neanderthal relatives—inviting visitors to consider what we have in common with these and other hominids as they explore the exhibition. The backdrop for this trio is a set of panels with huge, eye-catching, high-definition video projections depicting, among other things, colorful chromosomes that not only signal the exhibition's embrace of DNA as a vital tool but also establish a decidedly modern, even futuristic, mood.

The introductory section of the Hall presents the traditional and contemporary lines of evidence scientists today use to piece together the story of human evolution and shows how they complement each other. For example, in addition to a cast of a Neanderthal skullcap—discovered in 1856—the Spitzer Hall houses a vial of Neanderthal DNA from the first laboratory in the world to have successfully extracted and amplified this elusive genetic material that reveals much about what we share with the extinct hominid species most closely related to *Homo sapiens*.

In the History of Human Evolution section, lifelike reconstructions of Lucy, perhaps the best-known example of *Australopithecus afarensis*, and a male companion have been liberated from a wall display to a free-standing case in the center of the Spitzer Hall, a change of perspective that allows visitors a 360° view of the early hominid couple and an accurate—and surprising—sense of how small they were. The display also invites visitors to literally follow in their footsteps: fossilized tracks found in Laetoli, Tanzania, cast here, suggest that a pair of these early hominids walked side by side across an open plain 3.5 million years ago.

The Spitzer Hall is also home to a cast of the lesser-known but more complete "Little Foot" fossil of *Australopithecus*, found in South Africa in 1997. Only one other museum in the world displays a cast of "Little Foot."

Three life-size tableaux, adapted from dioramas featured in the original Hall, depict scenes in the lives of the human predecessors *Homo ergaster*, Neanderthal, and Cro-Magnon. A brand-new tableau presents a chilling scene in which a hyena on an outcropping has just caught the scent of an East Asian *Homo erectus*, or "Peking Man," cowering below, representing "hominids as hunted not hunters," said Dr. Tattersall. "Humans have been a prey species for most of their history." Ancient hyena dens, the exhibition text reminds us, are often a fertile source of hominid bone fragments for archaeologists.

DNA evidence informs the One Human Species section: a video kaleidoscope of faces seems to speak to the differences among us, the variety of skin colors, body types, and facial features, but instead, we learn that genetically we are all 99.9% the same. In another display, scientists map modern humans' evolution and subsequent migration out of Africa by factoring the DNA of living people all over the world against fossilized bones and artifacts.

An Australopithecus *couple is the centerpiece of the Spitzer Hall.* | R. Mickens/AMNH

A reconstruction of Homo rudolfensis | Image © Viktor Deak

Human creativity is addressed in the section What Makes Us Human? Raising intriguing questions about this key theme of the Hall is a robot—named RAP, for Robotic Action Painter—that creates "original" paintings using a combination of random decisions and responses to its environment, even signing each work when the robot "decides" it's done. Similarly, videos throughout this section explore behaviors of other species that resemble a human capacity for making tools, music, and art. All hint at some type of intelligence but fall short of what we think of as human.

Hanging above the western end of the Hall is a canopy replicating the paintings of deer in the limestone caves of Lascaux in southern France, made nearly 26,000 years ago and believed to be among the earliest human art. The canopy is lit with flickering light so visitors will see them just as the original artists would have with Ice Age torches.

The Spitzer Hall features a new Science Bulletin that draws on multiple disciplines to explore what it means to be human. This will complement the Museum's existing repertoire of Bio, Earth, and Astro Bulletins.

Other educational complements to the Hall include an Educator's Guide, available online at Resources for Learning, and a new section of Ology, the Museum's award-winning Web site for kids curious about science. In addition, a state-of-the-art classroom within the Hall, the Sackler Educational Laboratory for Comparative Genomics and Human Origins—the first such resource built into a permanent exhibition—ensures it will serve as a living, learning laboratory for students.

Online visitors can learn more about the Hall at www.amnh.org/humanorigins. The site can be used as a preview or to explore further after a visit. The site contains images of many of the tableaux and hominid fossil displays and includes information on the history of the Hall, behind-the-scenes photographs, and video highlights explaining fossil formation and how genetic information and mutations are passed on to succeeding generations. There are interviews with co-curators Drs. Tattersall and DeSalle and a schedule of related public programs including lectures, workshops for kids and adults, and more.

Available in the Museum Shop is an engaging illustrated book by Drs. Tattersall and DeSalle, written for children 8 and up. *Bones, Brains, and DNA* examines the tools we use today to study human origins, milestones in hominid development, human movement across the Earth, and the human use of language, music, art, and tools.

The Anne and Bernard Spitzer Hall of Human Origins was designed, developed, and produced by the Museum's Department of Exhibition, under the direction of David Harvey, Vice President for Exhibition.

The Museum is deeply grateful to lead benefactors Anne and Bernard Spitzer, whose marvelous generosity inspired and made possible the new Spitzer Hall of Human Origins.

The Museum also extends its gratitude to The Mortimer D. Sackler Foundation, Inc., and Arlene and Arnold Goldstein for their generous support.

This panel describes the genetic similarities and differences between humans and chimpanzees. | R. Mickens/AMNH

Partial skulls of Homo ergaster *found in Kenya.* | R. Mickens/AMNH

Members' Programs

Programs are available to Members only, unless a non-Member's price is given.

LECTURES

Moa's Ark: Conservation Lessons from New Zealand

Thursday, March 29 ML032907
7:00 p.m.
Kaufmann Theater
$12 ($15 Non-Members)

Since the 1990s, kiwi conservation projects have emerged all over New Zealand, and scientific research has led to greater knowledge of the bird's ecology. Author, photographer, and adventurer Neville Peat discusses New Zealand's natural history and his latest book, *Kiwi: The People's Bird*, which chronicles efforts to protect this biological oddity and endangered national emblem.

The Wild Trees: A Story of Passion and Daring

Thursday, April 12 ML041207
7:00 p.m.
Kaufmann Theater
$12 ($15 Non-Members)

Occurring only in coastal California, the coast redwood, at up to 350 feet in height, is the tallest living organism. Best-selling author and science writer Richard Preston evokes the majesty of one of nature's greatest works, describes its startling biosystem, and lauds those who are committed to the preservation of this largely unknown world.

Marine Mythology

Tuesday, April 17 ML041707
7:00 p.m.
Kaufmann Theater
$12 ($15 Non-Members)

Join Richard Ellis, Research Associate at the Museum, for his second in a series of lectures about marine life, this one about "monsters" of the deep sea. Ellis analyzes marine mythology through early natural history texts and other literature, and discusses the biological facts about these animals known today, such as the mysterious giant squid.

Sperm Whale and Giant Squid diorama | D. Finnin/AMNH

Treasures of the Past Inspiring Contemporary Design: The Arts and Crafts of Arizona's Indigenous People

Tuesday, April 24 ML042407
7:00 p.m.
Kaufmann Theater
$12

Peter Whiteley, Curator in the Division of Anthropology, discusses the history and traditions of southwestern Native American crafts, and showcases some of the Museum's collection in this area. Margaret A. Wood, fabric designer, quilter, and weaver, will present contemporary works from the region. A wine reception will follow the program in the Hall of Northwest Coast Indians.

The Shell Game

Saturday, April 28 ML042807
2:00 p.m.
Linder Theater
Free for Members (reservations required)

Throughout time, shells, exoskeletons of many sea creatures, have provided humans with valuable products. However, these attractive exteriors often conceal a voracious predator within, even one capable of killing a human with its venom! Trace the relationships and biological significance of mollusks with Museum Tour Guide Norman Rothwell.

Sea Dragons

Tuesday, May 8 ML050807
7:00 p.m.
Kaufmann Theater
$12 ($15 Non-Members)

Are the great prehistoric marine reptiles such as *Ichthyosaurus*, *Mosasaurus*, and *Plesiosaurus* all extinct? Join Richard Ellis, Research Associate at the Museum, for his third lecture in the marine series. Ellis discusses the lives, deaths, reproductive habits, and hunting strategies of these and other giant marine reptiles.

Slow Food Nation

Tuesday, May 15 ML051507
7:00 p.m.
Kaufmann Theater
$12 ($15 Non-Members)

Carlo Petrini, founder of the Slow Food organization, discusses his latest book, *Slow Food Nation: A Blueprint for Changing the Way We Eat*. Having traveled the world, this charismatic leader explains how we can improve our health and the health of the planet, and offers models for reforming the way food is grown, prepared, and eaten.

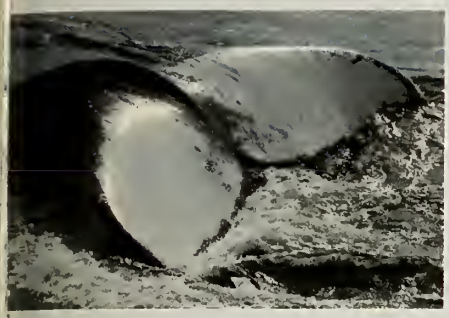
Carlo Petrini, founder of the Slow Food movement | Slow Food/Alberto Peroli

HALL TOUR

Dragons: Fact and Fancy

Sunday, May 6 MH050607
3:00–4:30 p.m.
Portrait Room
Free (reservations required)

Through the ages and around the world, dragons have appeared in



Scott Sobel, 2006

EXPEDITION

Whale Watch Weekend

Friday, May 18, 9:00 a.m.–
Sunday, May 20, 9:00 p.m.
MO051807
$635 double occupancy
$135 additional for single occupancy

Discover the ecological riches of Cape Cod Bay, with its diverse array of seabirds and marine animals. Museum educator Jay Holmes leads a three-day excursion to historic Provincetown, Massachusetts, that will feature whale watching, bird walks, and a New England lobster bake, among other activities. Three chartered whale watch cruises in the Bay will be led by naturalists from the area. Visit the Mystic Aquarium, take a guided bird walk through the Massachusetts Audobon Society's Wellfleet Bay Wildlife Sanctuary, and enjoy free time on Saturday afternoon to explore charming Provincetown. Cost includes transportation by private coach, meals at the hotel, boat excursions, admissions, and two nights lodging (double or single occupancy) at the Provincetown Inn Seaside Resort overlooking scenic Provincetown Harbor.

legends and fables, ancient art, and even in the accounts of early naturalists. Join Museum Tour Guide Wanda Finch and journey through the Museum's halls as she discusses creatures such as the Komodo dragon and pterodactyl that may have inspired the legends of the dragon.

EXPEDITIONS

Inside the Explorer's Club

Thursday, April 26 MO042607
6:00–8:30 p.m.
$65

Since its inception in 1904, the Explorers Club has served as a unifying force for explorers and scientists around the world, counting many Museum curators and researchers among its membership. Join Clare Flemming, the Club's Curator of Research Collections, for a tour of the landmark building that houses the Explorers Club. The tour is followed by a wine reception.

"Green II" The Bronx and Queens

Saturday, April 21 MO042107
9:00 a.m.–5:00 p.m.
$65

Join landscape architect and Museum Tour Guide Donna Walcavage for a tour of green architecture in the Bronx and Queens. After a private tour of the Queens Botanical Gardens with architect Joan Krevlin and landscape architect Jennifer Ward Sauder, visit green rooftops and Build It Green, a warehouse that sells recycled and environmentally friendly building materials. Learn how these creative organizations promote energy conservation in urban environments.

Rendering of the finished building | Courtesy of the Queens Botanical Gardens

Pennsylvania's Trail of Geology

Saturday, May 5 MO050507
9:00 a.m.–6:00 p.m.
$90

Join geologist Joe Boesenberg of the Department of Earth and Planetary Sciences for a trip to southeastern Pennsylvania. Visit the Hopewell Furnace National Historic site and learn how iron ore for the furnace was obtained from mines nearby. Then, hike and explore nearby French Creek State Park, rich with mineral resources and fascinating topography. Both sites provide excellent opportunities for studying the local geology and its relationship to past and present human activities.

Spring Fever in the Catskills

Saturday, May 12 MO051207
8:00 a.m.–5:00 p.m.
$90

Paul Sweet, Collections Manager in the Department of Ornithology, leads this expedition to two bird-watching sites in Orange and Ulster Counties. Basha Kill Wildlife Management Area is home to almost 200 species of birds, including the bald eagle and wild turkey, and Shawangunk Grasslands National Wildlife Refuge is an exceptional habitat for grassland-dependent migratory birds. Fee includes transportation by private coach.

FAMILY & CHILDREN'S PROGRAMS

Avian Adaptations

Sunday, April 15 MC041507A, B
10:30 a.m.–12:00 noon (Ages 5–7)
1:30–3:00 p.m. (Ages 8 and up)
Rose Center Classroom
$28

In this workshop, aspiring ornithologists will discover how differences in birds' anatomy aid in their survival. Activities include exploring the Sanford Hall of North American Birds and making sketches of mounted bird specimens. Back in the classroom, children

will create collages representing their favorite bird species. Museum educator Arthur Horan leads this program.

Save Our Seas!

Sunday, April 29 MC042907A, B
10:30 a.m.–12:00 noon (Ages 5–7)
1:30–3:00 p.m. (Ages 8 and up)
Rose Center Classroom
$28

What do marine biologists and conservationists study, and what are they doing to protect our seas? Join Museum educator Suzanne Morris and in the Milstein Hall of Ocean Life, to examine the relationships of marine animals to their habitats. Then, participate in hands-on activities back in the classroom. Discover how knowledge about life beneath the sea can make a difference.

Signs of Spring in the Pond and the Woods

Sunday, May 6, 2007 MC050607A, B
10:30 a.m.–12:00 noon
(Ages 5–7, each child with one adult)
1:30–3:00 p.m.
(Ages 8 and up, each child with one adult)
Rose Center Classroom
$50/pair

Museum educator Amy O'Donnell leads a scavenger hunt to the Hall of North American Forests to search for signs of spring such as nests, eggs, caterpillars, and flower buds hidden within the Museum's dioramas. Discover how and why plants and animals sleep through the winter. Back in the classroom, parents and kids will use these signs of spring to complete a small journal, and have an opportunity to dissect and plant bulbs.

Specimen from Morone Collection (M3351); image published in Evolution of the Insects, *2005 p. 167; D. Grimaldi & M. Engel.* | Photo by R. Larimer

PREVIOUSLY LISTED

Limited space may still be available for these programs.

Winter Walk in Northern Central Park

Saturday, March 3 MW030307A
10:00–11:30 a.m.

Winter Walk in Southern Central Park

Saturday, March 3 MW030307B
12:00 noon–1:30 p.m.
$22 each; $40 for both

Join geologist Sidney Horenstein to explore the wild, rocky, and wooded terrain of northern Central Park. Venture south and enjoy a peaceful walk while discovering how history, architecture, and urban growth correspond to the area's geology.

Big Fish

Tuesday, March 6 ML030607
7:00 p.m.
Kaufmann Theater
$12 ($15 Non-Members)

Learn about massive sharks, the largest bluefin tuna ever caught, and extinct giant fishes. Richard Ellis, author and Research Associate at the Museum, will discuss what scientists have learned from these leviathans and what might remain to be discovered.

Insect Investigators

Wednesday, March 21 MB032107A, B, C
6:30, 7:00, or 7:30 p.m.
$30

Enjoy this behind-the-scenes tour in the Department of Entomology with forensic entomologist Louis Sorkin and paleoentomologist Paul Nascimbene. (Note that live animals may be displayed during this program).

GOT A BONE TO PICK?

AMNH

Can you guess what kind of bones are modeled in this photo?

A. giraffe bones
B. mammoth bones
C. dinosaur bones

Hint: The bones appear in a diorama in the newly renovated Spitzer Hall of Human Origins that depicts how people might have lived during Earth's last Ice Age, about 15,000 years ago. This month, Scholastic's *Science World* and *Super Science* magazines delve into the fascinating work of the Museum's diorama expert, Stephen Quinn. The story is part of Science Explorations, a partnership between AMNH and Scholastic, the global children's education company, that brings science to life for readers in grades 3 through 10. Learn more at www.scholastic.com/scienceexplorations.

Still wondering about the photo? Visit OLogy, the Museum's online portal for kids, at http://ology.amnh.org.

Continuing the Legacy

By Dr. Bill Thierfelder,
School of Arts and Sciences,
Dowling College, Oakdale, New York,
and Jesup Society Member

When I was about 4 years old, my Dad drove me into Manhattan for a very special trip. After a stop in Central Park, he walked me over to Central Park West where Teddy Roosevelt (atop a horse, no less!) greeted me as I walked up the steps into the Rotunda of the American Museum of Natural History. That was the first of countless times in the last half century I've walked those steps.

My love affair with the Museum has never ceased. I've probably seen every Space Show and special exhibition offered since that first time in 1955, and I've had the privilege on a few occasions to visit scientists and curators working behind the scenes. Many special occasions in my life corresponded with openings of permanent halls, including North American Forests in 1958 (2nd-grade birthday party), Primates in 1965 (8th-grade graduation), and Pacific Peoples in 1971 (20th-birthday bash). The Museum inspired a young man to became a writer and a teacher and remains my home away from home.

That inspiration never ceases. I have written poems, crafted stories, and created lesson plans in just about every nook and cranny of the Museum. And in recent years, I've been able to bring my students at Dowling College to experience the Museum's wonders.

So it was only "natural" to name the Museum as the sole beneficiary of my retirement fund. When I pass on to the beyond—and get to spend quality time with Stephen Jay Gould and other icons of the Museum—my legacy gift will help the Museum continue its mission. I can't think of a better way to say thank you to a place that has been the epicenter of my continuing education and the source of my never-ending zest for life and the remarkable planet on which we live.

Dr. Bill Thierfelder | C. Chesek/AMNH

If you are interested in leaving a legacy for the American Museum of Natural History, please contact the Jesup Society, our planned giving group, at 212-769-5119 or plannedgiving@amnh.org.

2007 ISAAC ASIMOV MEMORIAL DEBATE

Pioneer Anomaly

Monday, March 26 HL032607
7:30 p.m.
LeFrak Theater, first floor
$12 ($14 Non-Members)

The *Pioneer* spacecrafts, two identical unmanned planetary probes, were launched in the 1970s on trajectories that would send them past the outer planets and onward with enough speed to leave the solar system entirely—a first in space exploration. Accounting for all known forces of propulsion and gravity on these crafts, their telemetry, which gives us their precise positions in space, does not match where our laws of physics say these crafts should be. And the discrepancy is growing. Is this some unforeseen glitch of spacecraft design, or does this dilemma herald the need for a new law of physics, perhaps even a new understanding of gravity? Join us as a panel of expert engineers and physicists debate this remarkable enigma that has been dubbed the "Pioneer Anomaly."

Panelists:

John D. Anderson, (retired), Jet Propulsion Laboratory

Ed Belbruno, Princeton University

Gary M. Kinsella, Jet Propulsion Laboratory

Irwin Shapiro, Harvard University

Slava G. Turyshev, Jet Propulsion Laboratory

Isaac Asimov, one of the most prolific and influential authors of our time, was a dear friend and supporter of the American Museum of Natural History. In his memory, the Hayden Planetarium is honored to host the annual Isaac Asimov Memorial Debate—generously endowed by relatives, friends, and admirers of Isaac Asimov and his work—bringing the finest minds in the world to the Museum each year to debate pressing questions on the frontier of scientific discovery. Proceeds from ticket sales of the Isaac Asimov Memorial Debates benefit the scientific and educational programs of the Hayden Planetarium.

Public Programs

These programs are available to the general public. Call 212-769-5200 for information and tickets.

GLOBAL WEEKENDS

The Global Weekends series explores cultural diversity and humans' interdependence on Earth through lectures, performances, films, and family programs.

International Polar Weekend: Saturday and Sunday, March 10 and 11

International Earth Day: Sunday, April 22

Global Weekends are made possible, in part, by The Coca-Cola Company, the City of New York, the New York City Council, and the New York City Department of Cultural Affairs. Additional support has been provided by the May and Samuel Rudin Family Foundation, Inc., the Tolan Family, and the family of Frederick H. Leonhardt.

LECTURES

Cats of Africa

Thursday, April 19
7:00 p.m.
Wallach Orientation Center
$15 ($13.50 Members)

Luke Hunter, Wildlife Conservation Society, and George Amato, AMNH Center for Conservation Genetics, explore behaviors of wild cats and reveal how new techniques in molecular genetics are helping conserve endangered cats across the globe. Illustrated with stunning images by award-winning wildlife photographer Gerald Hinde.

The Incredible, Edible Dandelion

Tuesday, April 24 EL042407
7:00 p.m.
Wallach Orientation Center
$20 ($18 Members)

Explore the natural and cultural history of the dandelion with Anita Sanchez, environmental educator and author of *The Teeth of the Lion: The Story of the Beloved and Despised Dandelion*. The dandelion has been used for medicine, magic, and food, possibly dating back to prehistoric times. Program includes recipes and dishes to taste.

HUMAN ORIGINS

Alan Walker on the Search for the "Missing Link"

Wednesday, March 14 EL031407
7:00 p.m.
Linder Theater
$15 ($13.50 Members)

Renowned paleontologist Alan Walker takes us back millions of years in search of our earliest human ancestor. From fossil evidence he started collecting with Louis and Mary Leakey, Dr. Walker has been able to create a detailed picture of the evolution and probable behavior of *Proconsul*, an important "stem ape."

Proconsul *skull found by Mary Leakey* | Alan Walker

Anthropology: Body Adornment

Wednesday, March 28 EL032807
7:00 p.m.
Linder Theater
$15 ($13.50 Members)

Randall White is Professor of Anthropology at New York University and one of the world's leading specialists in the study of Paleolithic art and personal adornment. He will discuss the ways body ornamentation points to the origin of symbolic thought.

Art/Sci Collision: Of Human-Robot Bondage

Wednesday, April 18 EL041807
7:00 p.m.
Kaufmann Theater
$15 ($13.50 Members)

How do human-machine relationships affect our understanding of ourselves? This panel of MIT researchers and artists will consider this question and the role of art in articulating issues around it.

This program is made possible, in part, by the Allaire Family and Ruth A. Unterberg.

FAMILY AND CHILDREN'S PROGRAMS

Dr. Nebula's Laboratory: Life with Lucy

Saturday, March 17
2:00–3:00 p.m.
Kaufmann Theater
$8 children, $10 adults

Come join Dr. Nebula's apprentice, Scooter, as she explores the mystery, myth, and science of our earliest ancestors.

This program is made possible, in part, by an anonymous donor.

AMNH Spring Adventure Camps

Monday–Friday, April 2–6
9:00 a.m.–4:00 p.m.
$400

Each session includes hands-on investigations, behind-the-scenes tours, and visits with Museum scientists.

Fossils and DNA Camp

(For 2nd and 3rd graders)

Embark on an exciting journey through human evolution and learn about our ancestors.

Destination Space: Astrophysics

(For 4th and 5th graders)

Learn about the universe through hands-on activities and Museum explorations in this popular camp.

Identification Day

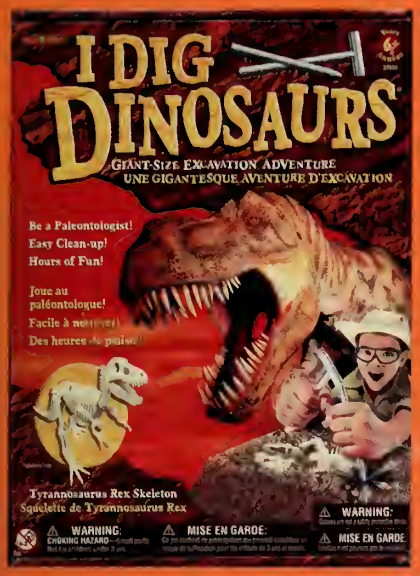
Saturday, April 14
1:00–4:00 p.m.
Hall of the Birds of the World

On Identification Day, an annual favorite, Museum scientists and experts attempt to identify your natural history mysteries. Bring in your favorite backyard finds, basement curios, and flea market discoveries.

AMERICAN MUSEUM OF NATURAL HISTORY

MUSEUM SHOP

DINOSAURS GALORE



I DIG T. REX KIT

DINOPOLY

EXPLORER HELMET

T. REX JUMBO FLOOR PUZZLE

PAINT-AND-PLAY DINOSAURS

Where better to find the best array of dinosaur-inspired toys, games, puzzles, and more than the American Museum of Natural History, home to the greatest collection of dinosaur fossils in the world!

To place orders, call our Personal Shopper at 1-800-671-7035 or shop at

www.amnhshop.com

General Information

HOURS

Museum: Daily, 10:00 a.m.–5:45 p.m.
The Museum is closed Thanksgiving and Christmas.
Space Show: Every half hour, 10:30 a.m.–4:30 p.m.
Research Library: Tuesday–Thursday, 2:00–5:30 p.m.
Hours are subject to change.

ENTRANCES

During Museum hours, visitors may enter through the subway (lower level), Central Park West at 79th Street (second floor), and the Rose Center/81st Street entrances. The Columbus Avenue entrance is open on weekends and holidays. The 77th Street entrance is closed until further notice.

TRANSPORTATION AND PARKING

Subway: B (weekdays) or C to 81st Street; 1 to 79th Street
Bus: M7, M10, M11, or M104 to 79th Street; M79 to Central Park West
Parking Garage: Open daily, 8:00 a.m.–11:00 p.m.; enter from West 81st Street. Members receive a discounted rate of $10 if entering after 4:00 p.m. To receive this rate, you must have your parking ticket validated at the Security Desk (first floor, Central Park West entrance). For more information, call 212-313-7278.

FOOD SERVICE

Museum Food Court: Daily, 11:00 a.m.–4:45 p.m. (*lower level*)
Starlight Café: Saturday and Sunday, 11:00 a.m.–4:45 p.m (*first floor*)
Café on 4: Saturday and Sunday, 11:00 a.m.–4:45 p.m (*fourth floor*)
Hours are subject to change.

MUSEUM SHOPS

The following Museum Shops are open during regular Museum hours:
Main Shop (*first and second floors*)
Dinostore (*fourth floor*)
Planetarium Shop (*Rose Center, lower level*)
Cosmic Shop (*Rose Center, second floor*)
Butterfly Shop (*second floor*)
Gold Shop (*third floor*)
Online Shop (*www.amnh.org*)

PHONE NUMBERS

Museum Information	212-769-5100
Membership Office	212-769-5606
Central Reservations	212-769-5200
Communications	212-769-5800
Development	212-769-5151
Discovery Tours	212-769-5700
Education	212-769-5304
Event & Conference Services	212-769-5350
Library Services	212-769-5400
Member Birthday Parties	212-769-5606
Museum Shop	800-671-7035
Natural History Magazine	646-356-6500
Patrons Circle	212-769-5153
Planetarium Information	212-769-5900
Planned Giving Office	212-769-5119
Volunteer Office	212-769-5566
Web Site	www.amnh.org

www.amnh.org

AMERICAN MUSEUM OF NATURAL HISTORY

Rotunda.
American Museum of Natural History
Received on: 02-27-07

Opening May 2

Creatures: Dragons, Unicorns & Mermaids

The first exhibition to trace the natural history roots of some of the world's most enduring mythological creatures, *Mythic Creatures* will highlight legendary beasts of land, sea, and air. Cultural artifacts will bring to light surprising similarities—and differences—in the ways peoples around the world have depicted these strange and wonderful beings, and fossil specimens will suggest a physical basis for the many forms they have taken.

Membership Department
Central Park West at 79th Street
New York, New York 10024-5192
www.amnh.org

rotunda

VOL. 32 NO. 3 MAY/JUNE 2007

MEMBERS' NEWSLETTER

HO
U2
5
.32
no. 3
May-Jun
07

AMERICAN MUSEUM OF NATURAL HISTORY

Museum Notes

CURRENTLY ON VIEW

Gold

Through August 19, 2007
Gallery 3
Free for Members

This glittering exhibition explores the enduring fascination with this icon of wealth, beauty, and power, presenting the intriguing scientific and cultural story of one of the world's most prized natural resources.

Gold is organized by the American Museum of Natural History, New York (www.amnh.org), in cooperation with The Houston Museum of Natural Science.

This exhibition is proudly supported by The Tiffany & Co. Foundation, with additional support from American Express® Gold Card.

The Butterfly Conservatory: Tropical Butterflies Alive in Winter

Through May 28, 2007
Whitney Memorial Hall of Oceanic Birds
Admission is by timed entry only.
Tickets are $10 for Members and $6 for Members' children.

A return engagement of this popular exhibition includes up to 500 live, free-flying tropical butterflies. Visitors can mingle with the butterflies and view illustrated displays that describe the butterfly life cycle, defense mechanisms, evolution, and conservation.

The lush interior of the tropical vivarium housing The Butterfly Conservatory | D. Finnin/AMNH

Inka keros *cups, Peru* | D. Finnin/AMNH

Frogs: A Chorus of Colors

Opens May 26, 2007
Gallery 77
Admission is by timed entry only.
Tickets are $10 for Members and $6 for Members' children.

This delightful exhibition is back, reintroducing visitors to the colorful and richly diverse world of frogs. Numerous species from around the world spend this summer in their re-created habitats. Visitors explore the biology of these popular amphibians, their importance to ecosystems, and the threats they face in the world's changing environments.

Frogs: A Chorus of Colors *at the American Museum of Natural History is made possible, in part, by the Eileen P. Bernard Exhibition Fund.*

This exhibition is presented with appreciation to Clyde Peeling's Reptiland.

Undersea Oasis: Coral Reef Communities

Through January 13, 2008
Akeley Gallery

Brilliant color photographs by Idell Conaway capture the dazzling invertebrate life that flourishes on coral reefs. In a diverse and delicate ecosystem, creatures from sea squirts and anemones to the elusive chambered nautilus depend on the reef to survive.

Beyond

Through April 6, 2008
IMAX Corridor

Photographer and author Michael Benson portrays our solar system with some of the most stunning images ever captured by unmanned space probes. Many of these alien, exquisite images of the varied terrain of our planetary neighbors have never before been rendered in full color.

The presentation of both Undersea Oasis *and* Beyond *at the American Museum of Natural History is made possible by the generosity of the Arthur Ross Foundation.*

Vital Variety

Ongoing
IMAX Gallery

Beautiful close-up photographs highlight the importance of the immense diversity of invertebrates and their critical role in the survival of humankind.

HAYDEN PLANETARIUM SHOWS

Cosmic Collisions

Journey into deep space—well beyond the calm face of the night sky—to explore cosmic collisions, hypersonic impacts that drive the dynamic

Mushroom coral | Idell Conaway

formation of our universe. Narrated by Robert Redford.

Cosmic Collisions was developed by the American Museum of Natural History, New York (www.amnh.org), in collaboration with the Denver Museum of Nature & Science; GOTO, Inc., Tokyo, Japan; and the Shanghai Science and Technology Museum.

Made possible through the generous support of CIT.

Cosmic Collisions was created by the American Museum of Natural History with the major support and partnership of the National Aeronautics and Space Administration, Science Mission Directorate, Heliophysics Division.

SonicVision

Fridays and Saturdays, 7:30 and 8:30 p.m.

SonicVision is a trip out of this world and into the minds of the universe's most creative digital animators, set to a soundtrack of today's coolest music.

Presented in association with MTV2 and in collaboration with renowned artist Moby.

IMAX MOVIES

Samuel J. and Ethel LeFrak Theater
For showtimes, visit www.amnh.org or call 212-769-5100.

Dinosaurs Alive!

This thrilling adventure uses scientifically accurate, computer-generated images to bring to life the prehistoric beasts humans have wondered about since their fossils were first unearthed. Viewers will follow AMNH paleontologists past and present from the exotic expanses of Mongolia's Gobi Desert to the sandstone buttes of New Mexico, and see rare 1920s footage of Roy Chapman Andrews, the "real" Indiana Jones.

IMAX films at the Museum are made possible by Con Edison.

The birthday astronaut will lead his or her friends around the Rose Center. | D. Finnin/AMNH

AND DON'T MISS...

A Night at the Museum

Advance Registration for Members
Saturday, July 14 VN071407
Saturday, August 11 VN081107
Limited space is available; please register ***before May 18****.*
Call 212-769-5200, Monday–Friday, 9:00 a.m.–5:00 p.m.
$70 per person

As the doors close and the lights dim, adventurers head out on flashlight tours to see amazing animals past and present, explore Earth, and journey to the edges of the universe before bedding down under the watchful eye of the blue whale in the Milstein Hall of Ocean Life or among the North American Mammals.

This wildly successful new sleepover program for children 8 to 12 and their caregivers sold out during its inaugural year. Now, we are pleased to offer Members this opportunity to reserve places for two new dates before they are announced to the public.

AMNH Birthday Parties

Get ready for a space adventure! At the Cosmic Blastoff birthday party, the birthday child will be Astronaut-in-Command in the Rose Center for Earth and Space. This party theme is for ages 7 and up.

Linda Kaye's Partymakers also presents Dinosaur Discoveries, Safari Treasure Hunt, and Underwater Treasure Hunt, each with a winning combination of education and entertainment. Parties are tailored for children ages 4 and up, and are available seven days a week as a benefit to Contributor and higher-level Museum Members only. For more information and to request a date, visit www.partymakers.com or call 212-288-7112.

COVER: *This griffin carousel figure can be seen in* Mythic Creatures, *opening May 26. See p. 4.* | Joe Leonard/Custom Carving

rotunda

ISSN 0194-6110
USPS Permit #472-650
Vol. 32, No. 3, May/June 2007

Lewis W. Bernard, *Chairman*
Ellen V. Futter, *President*
Lynn DeBow, *Senior Vice President for Development and Membership*
Rosemary Caulk, *Director of Membership*

Rotunda is published bimonthly, except for a combined issue in July/August/September and a single issue in December, by the Membership Office of the American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192. Phone: 212-769-5606. Web address: www.amnh.org. Museum Membership of $70 per year and higher includes a subscription to *Rotunda*.

© 2007 American Museum of Natural History.
Periodical postage paid at New York, NY, and at additional mailing offices. Postmaster: please send address changes to *Rotunda*, Membership Office, AMNH, at the above address. Printed in the USA.

An Exhibition of Mythic Proportions

Magical and mysterious, mythic creatures have dwelt beside us for millennia. Early sailors told of sirens and sea serpents in the depths below, monsters that made their way onto ancient maps at a time when "terra incognita" still denoted uncharted lands. Medieval tapestries recorded strange images of unicorns, and the literature of the Middle Ages is replete with knights in search of dragons. Today we have Harry Potter's hippogriffs and Disney's little mermaid, Ariel. Fact or phantasm, sometimes even a little of both, such beings are as old and enduring as imagination itself.

Here to explore the anthropological origins and cultural significance of some of the world's most enchanting mythic beings is the American Museum of Natural History's new exhibition *Mythic Creatures: Dragons, Unicorns, and Mermaids*, on view from May 26 through January 6, 2008. The exhibition highlights such supposed denizens of land, sea, and air as dragons, griffins, mermaids, sea serpents, and unicorns, with models that have to be seen to be believed. Among them will be a 17-foot-long dragon; the mythical bird of prey, the roc, with a 19-foot wing span; and a kraken, the multi-armed, ship-foundering sea monster, its massive two-foot-diameter tentacles surfacing all through the hall.

This mid-18th-century Japanese toggle portrays the mythological bird, the tengu, *emerging from an egg.* | D. Finnin/AMNH

Fantastic creatures have been part of human experience for thousands of years, passed down through legends and fables, ancient and contemporary art, performances, and even in the accounts of early naturalists. *Mythic Creatures* will showcase sculptures, paintings, textiles, and other cultural objects from around the world ranging from representational shadow puppets to ceremonial masks to a spectacular Japanese samurai suit of armor bearing the image of a dragon as a symbol of the wearer's power.

There will be dragon lore galore, and evocations of mermaids though the ages as depicted by various cultures, from the African water spirit Mami Wata to the Haitian Lasirén to the Inuit people's Sedna. From Europe come illustrations, such as those in a 1575 book by Swiss naturalist Conrad Gesner, of "sea monks" and "sea bishops," fish with body parts that uncannily match Roman Catholic monks' robes and bishops' hats, as well as an amusing 1855 juxtaposition of two fully dressed "sea bishops" with a giant squid. Pottery by the Nasca people who populated the coast of South America in what is now Peru from 1 to 700 C.E. shows yet another mythical sea creature, a killer whale holding a human head, a motif repeated in the mysterious "Nasca lines," enormous images carved in the ground and visible only from the air.

Mythic Creatures will also explore how some fossils of prehistoric animals, through misidentification, speculation, and imagination, could have been taken as proof of the existence of legendary beasts. Visitors will learn, for example, how Scythian nomads, on their quest for gold in the Gobi Desert, were likely to have come across dinosaur bones that would have bolstered their belief in the existence of the gold-guarding griffin, a legendary creature with the body of a lion and head and wings of an eagle, later portrayed on heraldic shields and coats of arms.

Pegasus carousel sculpture carved by Joe Leonard | Andrew Ressetti

Similarly, visitors will discover how narwhal tusks from the North Sea, introduced by Scandinavian traders, lent credence to the centuries-old idea of the unicorn, the beautiful horse with a single horn. (Such was the strength of this legend that when Marco Polo first encountered a rhinoceros he assumed it was a unicorn.)

In a reverse twist, some tales of undersea monsters may have resulted from glimpses of living sea creatures that are just as fantastic as any imaginary beast, including the giant squid and the oarfish. Consider the kraken, described in 1751 by Danish bishop and naturalist Eric Pontoppidan in *Natural History of Norway*: "Amongst the many things which are in the ocean, and concealed from our eyes, or only presented to

our view for a few minutes, is the Kraken. The creature is the largest and most surprising of all the animal creation.... Our fishermen unanimously affirm, and without the least variation in their accounts, that [the creature's arms] stand up as high and as large as the masts of middle-sized vessels.... If they were to lay hold of the largest [ship] they would pull it down to the bottom."

The kraken surfaced in Scandinavian stories dating back to about 1180 C.E., and was said to dwell in the deep ocean waters near Norway and Iceland, a creature so gigantic that when it surfaced it resembled a ring of islands, and when it submerged, would suck down boats too close to the whirlpool it created. By the mid-19th century, however, scientists had identified a living creature, the giant squid, whose long tentacles may have been interpreted as those of the

The Haitian mermaid Lasirén has became a part af the Vadau traditian. | D. Finnin/AMNH

kraken. Visitors will be able to judge for themselves with evidence from the Museum's own collection, a tank containing one of the world's best-preserved specimens of a giant squid, a 25-foot-long male, caught by fishermen near New Zealand in 1997. The giant squid is such an elusive

A 19th-century Chinese dragon shadaw puppet | D. Finnin/AMNH

creature that it had never been photographed alive in the depths until September 2005, when, in the Pacific Ocean off the coast of Japan, a 25-foot-long specimen seized a baited line, triggering an automatic camera.

Like the kraken and the giant squid, sea serpents on old maps may be based on actual sightings of the oarfish or ribbon-fish. A long, eel-shaped fish that grows to 36 feet, the oarfish has a decidedly "monstrous" crest of bright red spines on its head and a spiny dorsal fin running down the length of its back. And it was most likely the sighting of a manatee that led Christopher Columbus to report in Haiti in 1493 that mermaids were "not as pretty as they are depicted, for somehow in the face they look like men."

Mythic creatures are the product of human imagination, and this exhibition will bring to light surprising similarities—and differences—in the ways peoples throughout time and across cultures have envisioned and represented these strange and wonderful beings, telling us as much about the people who imagined them as about the creatures themselves.

The exhibition is co-curated by Mark Norell, Curator in the Division of Paleontology; Laurel Kendall, Curator in the Division of Anthropology; and Richard Ellis, Research Associate, and is designed and produced by the American Museum of Natural History's Department of Exhibition.

Mythic Creatures: Dragans, Unicarns, and Mermaids *is arganized by the American Museum af Natural Histary, New York (www.amnh.arg), in callabaratian with The Field Museum, Chicaga; Canadian Museum af Civilization, Gatineau; Australian National Maritime Museum, Sydney; and Fernbank Museum of Natural Histary, Atlanta.*

Mythic Creatures *is proudly supparted by* ***MetLife Foundatian.***

Ancient Greeks who uncavered the skulls of dwarf prehistaric elephants may have mistaken the central nasal cavity, where the trunk was attached, far a single eye socket that suggested ane-eyed giants—Cyclopes—had ance raamed the land. | D. Finnin/AMNH

Pardon Our Appearance: Façade Facelift

Whose heart doesn't leap a little at the sight of the corner turrets of the American Museum of Natural History and the promise of discovery that lies within? Now these twin sentinels and the rest of the familiar "castle" buildings that comprise the 77th Street façade between Central Park West and Columbus Avenue are being returned to their original glory in one of the largest and most ambitious restoration projects the institution has ever undertaken.

Designed by Cady, Berg & See, the Museum's five interconnected West 77th Street buildings, built between 1891 and 1897, have been hailed as the best examples of Romanesque Revival architecture in New York City. However, the graceful arches, thick masonry walls, and elegant towers have all suffered significant deterioration over the last century. The $37 million project, planned for completion sometime in 2009, will restore and repair the entire 700-foot-long south-facing façade of the Museum. The greatest challenge is the reconstruction of the sweeping staircase and monumental arch of the porte-cochere where 19th-century visitors, many arriving by horse-drawn carriage, ascended the granite steps to what was the main entrance to the Museum from the late 1890s to the early 1930s. The structure will be partially dismantled and outfitted with a new waterproof membrane. New asphalt pavers will be set into the main landing, and the original granite treads repaired and replaced. Another significant component will be the restoration of 637 windows along the façade.

Restoration has begun on the Museum's 77th Street façade. | C. Chesek/AMNH

The first phase of the project, the restoration of the 77th Street lobby to the grandeur of its original 1904 design, was completed last December. The old terrazzo flooring was peeled away to reveal the original mosaics of Carrara marble including an elegant rose compass design. The tiles were cleaned and restored, and 24 inverted glass bowl chandeliers, replicas of 1890s lighting fixtures similar to those found in the renovated fossil halls on the fourth floor, were installed. In addition to the period lamps, modern state-of-the-art recessed track lighting brings new drama to the reconfigured lobby. Renamed the Grand Gallery, it is a grand gateway to the Museum's newest and oldest halls—the Anne and Bernard Spitzer Hall of Human Origins, which opened just this past February, and the Hall of Northwest Coast Indians, originally known as the Hall of North Pacific Peoples when it opened in 1899.

A dynamic focal point of the Grand Gallery and a Museum icon, the 63-foot-long Great Canoe has been given elevated prominence, literally, by being raised more than 7 feet off the ground. Acquired in 1883, this massive dugout canoe—the longest of its type still surviving—was carved from the trunk of a single large cedar tree, and displays the work of craftsmen from more than one of the First Nations of British Columbia. It has been carefully and thoroughly restored by Museum conservators, and the 17 life-size Northwest Coast Indian figures that peopled the canoe since 1910 have been removed and placed in storage. From the spectacular new vantage point, "floating" above the heads of visitors, the artistry and beauty of the exterior of the Great Canoe is evident from all angles.

The Great Canoe in the Grand Gallery | R. Mickens/AMNH

Members' Programs

Programs are available to Members only, unless a non-Member's price is given.

EXPEDITIONS

Collect Call from the Cretaceous

Saturday, June 9 MO060907
9:00 a.m.–5:00 p.m.
$85

Pack your collecting bag, old sneakers, and lunch, and join Carl Mehling, Fossil Collections Manager in the Division of Paleontology, for an expedition to Big Brook in Monmouth County, New Jersey. The area offers a variety of invertebrate and vertebrate fossils from the Late Cretaceous. Plentiful fossils and a diverse fauna make it an ideal spot for an introduction to fossil collecting. Fee includes transportation by private coach.

Black Rock Summit and the Hudson River | Courtesy of Black Rock Forest Consortium

Black Rock Forest Expedition

Saturday, June 23 MO062307
9:00 a.m.–5:00 p.m.
$90

Beautiful Black Rock Forest is a natural treasure of the Hudson Valley, rich with ponds, wetlands, and biological diversity. Its dramatic topography makes it an ideal living laboratory for scientists as well as nature enthusiasts wishing to escape the city. Enjoy nature walks and tour the facilities and grounds with Black Rock scientists who study wildlife biology, forest conservation, tree ecology, and environmentally friendly architecture. Fee includes transportation by private coach.

Exploring Gardens of Science

Saturday, June 30 MO063007
9:00 a.m.–5:00 p.m.
$95

Explore the Institute of Ecosystem Studies in Millbrook, New York, in the mid-Hudson Valley. Enjoy a private tour of the gardens with IES scientists at Fern Glen, an outdoor "classroom" with a range of native plant communities, and tour Gifford Garden, where plants are grouped to convey themes and design concepts. Learn about the IES's holistic approach to the study of environmental change.

Ancient Amber Fields of New York and New Jersey

Saturday, July 14 MO071407
9:00 a.m.–5:00 p.m.
$95

Museum paleoentomologist Paul Nascimbene leads this tour through geological history and ancient fossils in amber. First, visit the Staten Island Institute of Arts and Sciences and view the historic clay pit and amber exhibitions. Then, stop at Staten Island's Clay Pit Ponds State Park Preserve to see the remnants of pits once used for brick making and

Early flower in New Jersey amber, from the Tony Grygorcewicz Collection | D. Grimaldi

Inside the greenhouse | Courtesy of the Institute of Ecosystem Studies

ceramics. Finally, search for amber at central New Jersey's Raritan formation. Bring lunch, a trowel, and a collecting bag. Fee includes transportation by private coach and admission.

Sail on the *A. J. Meerwald*

Sunday, July 15 MO071507
12:00 noon–5:00 p.m.
$95

Join geologist Alan Rice of the Department of Earth and Planetary Sciences for a private sail aboard New Jersey's official tall ship, the *A. J. Meerwald*, a two-masted 1928 oyster schooner. Set sail from Liberty State Park and learn about New York's fascinating oyster industry. While on board, help raise the sails, dissect an oyster, and learn about water chemistry, marine ecology, and Hudson River history. Fee includes transportation by private coach to and from Liberty State Park.

Pioneer Sail

Saturday, July 21 MO072107
4:00–6:00 p.m.
$75

Enjoy a private sail aboard the historic *Pioneer*, a 102-foot schooner. Sail under the Brooklyn Bridge, and explore the area's history and its surrounding waters while getting a new perspective of New York City's skyline. Onboard educators from the South Street Seaport Museum will discuss the history of the boat, the

cultural heritage of the area, and harbor ecology and conservation.

Crystal Cave and Lost River Parks

Saturday, July 28 MO072807
9:00 a.m.–6:00 p.m.
$95

Go underground in eastern Pennsylvania with Museum geologist Joe Boesenberg. At Crystal Cave, discovered in 1871, you'll see an impressive display of calcite and aragonite crystals slowly carved by nature through the ages. Then, travel to nearby Lost River Caverns to see fluorescent minerals and the mysterious Lost River that runs through the cavern.

Blinds for observing and reading bands of roseate terns on Great Gull Island | © Gary Lehman, 2006

Great Gull Island Research Project

Thursday, August 2 MO080207
8:00 a.m.–6:00 p.m.
$165

Great Gull Island, a Museum research station in Long Island Sound, is the site of ongoing research on the endangered roseate tern and the threatened common tern. Take advantage of this rare opportunity to journey by boat to the 17-acre island, which is usually open only to researchers and scientists. Led by Helen Hays, a Museum ornithologist who has been studying birds for over 30 years, participants will watch hatching chicks, track nests, analyze colonies, and explore the army buildings and battlements of an old fort built on the island in 1898. Cost includes transportation by private coach and chartered boat. This trip is limited to 25 participants.

WALKING TOUR

Highbridge Park

Thursday, July 19 MW071907
10:00 a.m.–1:00 p.m.
$28

Explore Highbridge Park and see New York City's oldest standing bridge, the High Bridge, which was built to carry the old Croton Aqueduct over the Harlem River. Learn about the Highbridge Water Tower, a landmark symbol of the City's water system. Visit the site of the Battle of Fort Washington and enjoy magnificent cliffs and large rock outcroppings that dominate the park. Geologist Sidney Horenstein leads this historical walk in upper Manhattan.

HALL TOURS

Fabulous Frogs and Toads

Sunday, June 10 MH061007
3:00–4:30 p.m.
Free (reservations required)

Join Museum Tour Guide Eileen Flood as she leads this hall tour focusing on the many fascinating features of frogs and toads. Hear about their extensive fossil record, biology, and diverse habitats and how ancient cultures depicted frogs and toads in myths, legends, and folklore. (This tour does not include the exhibition *Frogs*.)

Shells and Eggshells

Sunday, July 22 MH072207
3:00–4:30 p.m.
Free (reservations required)

Have you ever considered the diversity and beauty of shells and eggshells in the natural world and in human culture? How do mollusks form pearls? What makes an egg watertight and how does this relate to modern humans? Why are some shells so valuable to us? Join Museum Tour Guide Judith Cubbon for a unique hall tour to seek out the connection between birds, eggshells, and extinction.

FAMILY & CHILDREN'S PROGRAM

Fun with Frogs on Father's Day

Sunday, June 17 MC061707
10:30 a.m.–2:00 p.m.
Rose Center Classroom
Ages 4–9, each child with one adult
$100/pair; $45 each additional child

Celebrate Father's Day while learning about frogs. From lush rain forests to parched deserts, frogs are found in nearly every environment on Earth. Launched by their amazingly long and well-adapted legs, some frogs can jump 25 times the length of their own bodies! With educator Arthur Horan, dads and kids can visit the exhibition *Frogs*, enjoy lunch, and participate in a craft workshop examining the biology, survival strategies, and social behavior of frogs. Cost includes all materials, entrance to *Frogs*, and lunch.

Chinese gliding frog | Joe McDonald, Clyde Peeling's Reptiland

For tickets, call 212-769-5200, Monday–Friday, 9:00 a.m.–5:00 p.m., or visit www.amnh.org. Please have ready your credit card, your Membership number, and the program code. All Members' programs require advance registration.

Paranthropus boisei, *artists' reconstruction* | Gary J. Sawyer and Viktor Deak, photo by Viktor Deak

Treasure Hunt: A Family Portrait

Sunday, June 3
10:30 a.m.–12:30 p.m.
Free and open to Contributor and higher-level Members
Recommended for ages 9 and up
Portrait Room
Reservations required; call 212-769-5606.

It's a race to the finish! Bring your family, friends, and other *Homo sapiens* for an educational treasure hunt in the new Anne and Bernard Spitzer Hall of Human Origins. Trace the evolutionary path of your early ancestors and other primates by uncovering clever clues throughout the hall. Find out if bipedal legs and a highly developed brain will put you at the top of the hominid family tree.

PREVIOUSLY LISTED

Limited space may still be available for these programs.

Sea Dragons

Tuesday, May 8 ML050807
7:00 p.m.
Kaufmann Theater
$12 ($15 Non-Members)

Join Richard Ellis, Research Associate at the Museum, to learn about reptiles with jaws and teeth strong enough to crush even the hardest-shelled giant sea turtle, and a four-flippered behemoth with the body of a dolphin and the tail of a shark.

Spring Fever in the Catskills

Saturday, May 12 MO051207
8:00 a.m.–5:00 p.m.
$90

Paul Sweet, Collections Manager in the Department of Ornithology, leads this expedition to two bird-watching sites in Orange and Ulster Counties. Fee includes transportation by private coach.

Slow Food Nation

Tuesday, May 15 ML051507
7:00 p.m.
Kaufmann Theater
$12 ($15 Non-Members)

Carlo Petrini, founder of the Slow Food organization, discusses how we can improve our health and the health of the planet, and offers models for reforming the way food is grown, prepared, and eaten.

Whale Watch Weekend

Friday, May 18, 9:00 a.m.–
Sunday, May 20, 9:00 p.m. MO051807
$635 double occupancy
$135 additional for single occupancy

Discover the ecological riches of Cape Cod Bay, with its diverse array of seabirds and marine animals. Museum educator Jay Holmes leads a three-day excursion to historic Provincetown, Massachusetts. Take a whale watch cruise, visit the Mystic Aquarium, attend a guided bird walk through the Massachusetts Audubon Society's Wellfleet Bay Wildlife Sanctuary, and enjoy free time on Saturday afternoon to explore charming Provincetown. Cost includes transportation by private coach, meals at the hotel, boat excursions, admissions, and two nights lodging (double or single occupancy) at the Provincetown Inn Seaside Resort overlooking scenic Provincetown Harbor.

BEASTLY SCIENCE

Question:
What do a dinosaur fossil, a fire-breathing dragon, and AMNH anthropologist Laurel Kendall have in common?

Answer:
Science Explorations!

In the latest installment of Science Explorations, the partnership between AMNH and Scholastic, readers of *Science World* and *SuperScience* magazines are introduced to the work of Laurel Kendall, curator of the Museum's upcoming exhibition *Mythic Creatures*. In an article appearing in May issues of the magazines, Kendall turns her attention to some of the fantastic creatures kids encounter in movies and books today, drawing connections between these richly imagined beasts and the real creatures that may have ultimately inspired ancient legends of griffins, unicorns, and mermaids.

The story concludes the second year of the ongoing series of articles and Web quests, bringing science to life for readers in grades 3 through 10 with vivid photographs, lively writing, behind-the-scenes tours of the Museum, and engaging interviews with AMNH scientists and curators. Visit www.scholastic.com/scienceexplorations to learn more.

To check out the latest "Mystery Photo" accompanying Science Explorations, log on to Ology, the Museum's online portal for kids, at http://ology.amnh.org.

Public Programs

These programs are available to the general public. Call 212-769-5200 for information and tickets.

Rachel Carson: A Centenary Celebration—DDT: Where We Stand Today

Thursday, May 3 EL050307
7:00 p.m.
Kaufmann Theater
$15 ($13.50 Members)

Rachel Carson's 1962 book, *Silent Spring*, is considered to have launched the modern environmental movement. The centenary of her birth is an opportune time to re-examine her findings on DDT use in light of current research. A panel of experts will discuss the effects of DDT on the environment, malaria prevention, and health policy.

Up the Hudson River

Tuesday, June 19 EK061907
6:00–9:00 p.m.
$45 ($42.50 Members)

Sidney Horenstein will be your tour guide on this three-hour Hudson cruise. Learn about the geology and the history of the Hudson Valley.

Manhattan skyline from the Hudson River | K. Brew/AMNH

Mythic Weekend

Saturday and Sunday, June 23 and 24
1:00–5:00 p.m.
Various Museum locations
Free with Museum admission

This festival ties together cultural, historical, and scientific perspectives on mythic creatures, and will feature performances, workshops, films, conversations with some of the most popular authors of our time, and a "mythic fair."
Visit www.amnh.org/mythic.

Dr. Nebula's Laboratory: Mythic Stories and Tales

Saturday, June 23 RC062307
2:00–3:00 p.m.
Kaufmann Theater
$8 children, $10 adults

Join Dr. Nebula's apprentice, Scooter, to explore mythic stories and tall tales. In this whimsical theatrical experience, the audience will become the storyteller and the inspiration for our enchanting folklore.

This program is made possible, in part, by an anonymous donor.

Yoko Fujimoto, Nobuko Miyomoto, and PJ Hiroboyoshi are the Triangle Project. | Shane Sato

GLOBAL WEEKENDS

Asian American Heritage

Saturday, May 12
Free with Museum admission

2:00 p.m.: The Triangle Project's *Journey of the Dandelion* explores peace and unity through drumming, singing, and movement.

4:00 p.m.: KaWaDa Ensemble, a trio of Japanese and Mongolian musicians, performs *As the Wind Blows*, created specifically for this event.

This program is cosponsored with the Asian American Arts Alliance.

In Celebration of Indigenous Peoples

Saturday, May 19
1:00–4:30 p.m.
Free with Museum admission

Live Native American musical performances and discussions with representatives from the United Nations and indigenous peoples.

This program is cosponsored by the Secretariat of the United Nations Permanent Forum on Indigenous Issues, the NGO Committee on the International Decade of the World's Indigenous Peoples, and the Tribal Link Foundation.

Global Weekends are made possible, in part, by The Coca-Cola Company, the City of New York, the New York City Council, and the New York City Department of Cultural Affairs. Additional support has been provided by the May and Samuel Rudin Family Foundation, Inc., the Tolan Family, and the family of Frederick H. Leonhardt.

GLOBAL KITCHEN: SPRING FOODS

Each lecture includes tastings.

Bees and Their Honey

Tuesday, May 8 EL050807
7:00 p.m.
Linder Theater
$20 ($18 Members)

Entomologist Diana Sammataro will discuss the history of the cultivation and uses of honey.

Exquisite Mushrooms

Tuesday, May 15 EL051507
7:00 p.m.
Linder Theater
$20 ($18 Members)

Author Gary Lincoff and chef Amy Farges will transform the way you view the not-so-lowly fungi.

All about Wine

Tuesday, May 29 EL052907
7:00 p.m.
Linder Theater
$20 ($18 Members)

Learn about the cultural significance and the technical aspects of wine with vintner and wine judge Louisa Thomas Hargrave.

AMERICAN MUSEUM of NATURAL HISTORY

MUSEUM SHOP

Tie Fashion and Science Together

hoose from these exquisite
00% silk ties, inspired by
ur special exhibitions and
ermanent collections:

- NYC *T. rex* tie made expressly for the AMNH*
- NYC subway tie
- *T. rex* scatter tie made expressly for the AMNH*
- Constellation tie
- Darwin tie made expressly for the AMNH*
- DNA Strand Tie
- *T. rex* tie made expressly for the AMNH*

Available in other colors

To place orders, call our Personal Shopper at 1-800-671-7035 or shop at

www.amnhshop.com

General Information

HOURS
Museum: Daily, 10:00 a.m.–5:45 p.m.
The Museum is closed Thanksgiving and Christmas.
Space Show: Every half hour, 10:30 a.m.–4:30 p.m.
Research Library: Tuesday–Thursday, 2:00–5:30 p.m.
Hours are subject to change.

ENTRANCES
During Museum hours, visitors may enter through the subway (lower level), Central Park West at 79th Street (second floor), and the Rose Center/81st Street entrances. The Columbus Avenue entrance is open on weekends and holidays. The 77th Street entrance is closed until further notice.

TRANSPORTATION AND PARKING
Subway: B (weekdays) or C to 81st Street; 1 to 79th Street
Bus: M7, M10, M11, or M104 to 79th Street; M79 to Central Park West
Parking Garage: Open daily, 8:00 a.m.–11:00 p.m.; enter from West 81st Street. Members receive a discounted rate of $10 if entering after 4:00 p.m. To receive this rate, you must have your parking ticket validated at the Security Desk (first floor, Central Park West entrance). For more information, call 212-313-7278.

FOOD SERVICE
Museum Food Court: Daily, 11:00 a.m.–4:45 p.m. (*lower level*)
New! Café on 1: Seasonal hours, as posted (*first floor*)
Starlight Café: Saturday and Sunday, 11:00 a.m.–4:45 p.m (*first floor*)
Café on 4: Saturday and Sunday, 11:00 a.m.–4:45 p.m (*fourth floor*)
Hours are subject to change.

MUSEUM SHOPS
The following Museum Shops are open during regular Museum hours:
Main Shop (*first and second floors*)
Dinostore (*fourth floor*)
Planetarium Shop (*Rose Center, lower level*)
Cosmic Shop (*Rose Center, second floor*)
Butterfly Shop Closes May 28 (*second floor*)
Gold Shop (*third floor*)
Mythic Creatures Shop Opens May 26 (*fourth floor*)
Frogs Shop Opens May 26 (*first floor*)
Online Shop (*www.amnh.org*)

PHONE NUMBERS

Museum Information	212-769-5100
Membership Office	212-769-5606
Central Reservations	212-769-5200
AMNH Expeditions	212-769-5700
Communications	212-769-5800
Development	212-769-5151
Education	212-769-5304
Event & Conference Services	212-769-5350
Library Services	212-769-5400
Member Birthday Parties	212-769-5606
Museum Shop	800-671-7035
Natural History Magazine	646-356-6500
Patrons Circle	212-769-5153
Planetarium Information	212-769-5900
Planned Giving Office	212-769-5119
Volunteer Office	212-769-5566
Web Site	www.amnh.org

www.amnh.org

AMERICAN MUSEUM of NATURAL HISTORY

CAFÉ ON 1

The latest addition to the Museum's dining options is the spacious Café on 1, located just between the newly renovated Grand Gallery and the spectacular Spitzer Hall of Human Origins. With seating for up to 70, Café on 1 will offer casual fare as well as gourmet selections, along with a variety of beverages.
Be sure to stop by!

SAVE A TREE

The current issue of *Rotunda* is now available online! Download it at www.amnh.org. If you'd like to stop receiving paper copies, please email members@amnh.org.

Membership Department
Central Park West at 79th Street
New York, New York 10024-5192
www.amnh.org

Rotunda.
American Museum of Natural History
Received on: 05-08-07

rotunda

VOL. 32 NO. 4 JULY/AUGUST/SEPTEMBER 2007

MEMBERS' NEWSLETTER

Q 70
.S2
N
v 32
n 4
Jul-Sep
2007

AMERICAN MUSEUM OF NATURAL HISTORY

Museum Notes

This 17-foot-long dragon model guards the entrance to Mythic Creatures. | D. Finnin/AMNH

CURRENTLY ON VIEW

Mythic Creatures: Dragons, Unicorns, and Mermaids

Through January 6, 2008
Gallery 4
Free for Members

Mythic Creatures traces the cultural and natural history roots of some of the world's most enduring legendary beings of land, sea, and air. Cultural artifacts bring to light surprising similarities—and differences—in the ways peoples around the world have depicted these strange and wonderful beings, and fossil specimens suggest a physical basis for the many forms they have taken.

Mythic Creatures: Dragons, Unicorns, and Mermaids *is organized by the American Museum of Natural History, New York (www.amnh.org), in collaboration with The Field Museum, Chicago; Canadian Museum of Civilization, Gatineau; Australian National Maritime Museum, Sydney; and Fernbank Museum of Natural History, Atlanta.*

Mythic Creatures *is proudly supported by* ***MetLife Foundation.***

Gold

Through August 19, 2007
Gallery 3
Free for Members

This glittering exhibition explores the enduring fascination with this icon of wealth, beauty, and power, presenting the intriguing scientific and cultural story of one of the world's most prized natural resources.

Gold *is organized by the American Museum of Natural History, New York (www.amnh.org), in cooperation with The Houston Museum of Natural Science.*

This exhibition is proudly supported by The Tiffany & Co. Foundation, with additional support from American Express® Gold Card.

Frogs: A Chorus of Colors

Through September 9, 2007
Gallery 77
Admission is by timed entry only. Tickets are $10 for Members and $6 for Members' children.

This delightful exhibition is back, reintroducing visitors to the colorful and richly diverse world of frogs. Numerous species from around the world spend this summer in their re-created habitats, complete with rock ledges, live plants, and waterfalls. Visitors explore the biology of these popular amphibians, their importance to ecosystems, and the threats they face in the world's changing environments.

Frogs: A Chorus of Colors *is made possible, in part, by the* ***Eileen P. Bernard Exhibition Fund.***

This exhibition is presented with appreciation to Clyde Peeling's Reptiland.

Undersea Oasis: Coral Reef Communities

Through January 13, 2008
Akeley Gallery

Brilliant color photographs by Idell Conaway capture the dazzling invertebrate life that flourishes on coral reefs. In a diverse and delicate ecosystem, creatures from sea squirts to the elusive chambered nautilus depend on the reef to survive.

Beyond

Through April 6, 2008
IMAX Corridor

Michael Benson takes visitors on a journey through our solar system with some of the most stunning images ever captured by unmanned space probes.

The presentation of both Undersea Oasis *and* Beyond *at the American Museum of Natural History is made possible by the generosity of the Arthur Ross Foundation.*

The Unknown Audubons: Mammals of North America

Through January 6, 2008
Audubon Gallery

The stately Audubon Gallery showcases the last great work by John James Audubon, best-known for his bird paintings. His gorgeously detailed depictions of North American mammals, the "unknown" Audubons, resonate within today's context of environmental awareness. Mammals from the Museum's collection and memorabilia complement the paintings.

Major funding for this exhibition has been provided by the Lila Wallace-Reader's Digest Endowment Fund.

The Audubon Gallery | C. Chesek/AMNH

Vital Variety

Ongoing
IMAX Gallery

Beautiful close-up photographs highlight the importance of the immense diversity of invertebrates and their critical role in the survival of humankind.

HAYDEN PLANETARIUM SHOWS

Cosmic Collisions

Journey into deep space—well beyond the calm face of the night sky—to explore cosmic collisions, hypersonic impacts that drive the dynamic

COVER: *A stibnite specimen on display in the Grand Gallery; see back cover.* | D. Finnin/AMNH

Artist's concept of NASA's Ares rockets, which will carry humans and cargo to the Moon and beyond. | NASA/MSFC

formation of our universe. Narrated by Robert Redford.

Cosmic Collisions *was developed by the American Museum of Natural History, New York (www.amnh.org), in collaboration with the Denver Museum of Nature & Science; GOTO, Inc., Tokyo, Japan; and the Shanghai Science and Technology Museum.*

Made possible through the generous support of CIT.

Cosmic Collisions *was created by the American Museum of Natural History with the major support and partnership of the National Aeronautics and Space Administration, Science Mission Directorate, Heliophysics Division.*

SonicVision

Fridays and Saturdays, 7:30 and 8:30 p.m.

SonicVision is a trip out of this world and into the minds of the universe's most creative digital animators, set to a soundtrack of today's coolest music.

Presented in association with MTV2 and in collaboration with renowned artist Moby.

New! Field Trip to the Moon

Wednesdays, 10:30 a.m.

Launched on a rocket and guided by a live presenter, children and adults can see a sunrise in space and orbit and land on the Moon, followed by discussion of what the future might hold for Moon exploration.

IMAX MOVIES

Samuel J. and Ethel LeFrak Theater
For showtimes, visit www.amnh.org or call 212-769-5100.

Dinosaurs Alive!

Scientifically accurate, computer-generated images, along with with film footage of past and present AMNH paleontologists, bring to life the magnificent, mystifying creatures whose existence and extinction have captivated the human imagination since their fossils were first unearthed.

IMAX films at the Museum are made possible by Con Edison.

AND DON'T MISS...

A Night at the Museum

Advance Registration for Members
Friday, September 21 VN092107
Friday, October 26 VN0102607
Saturday, November 10 VN111007
Limited space is available; please register before July 31.
Call 212-769-5200, Monday–Friday, 9:00 a.m.–5:00 p.m.
$99 per person for Members

As the doors close and the lights dim, adventurers head out on flashlight tours to see amazing animals past and present, explore Earth, and journey to the edges of the universe before bedding down under the watchful eye of the blue whale in the Milstein Hall of Ocean Life or among the North American Mammals. Members now have the opportunity to register for the above sleepover dates before they are announced to the public.

AMNH Birthday Parties

At the Dinosaur Discoveries party, the birthday paleontologist and guests study fossils and learn how paleontologists use evidence like tracks and bones to unravel the mysteries of these tremendous reptiles.

A camera crane reaches out over the Ghost Ranch dig site while filming Dinosaurs Alive! | © Duncan Clark

Slumbering beneath the blue whale during A Night at the Museum | D. Finnin/AMNH

Linda Kaye's Partymakers also presents Cosmic Blast-Off, Safari Treasure Hunt, and Underwater Treasure Hunt, each with a winning combination of education and entertainment. Parties are tailored for children ages 4 and up, and are available seven days a week as a benefit to Contributor and higher-level Museum Members only.
For more information and to request a date, visit www.partymakers.com or call 212-288-7112.

SAVE A TREE

The current issue of *Rotunda* is now available online! Download it at www.amnh.org. If you'd like to stop receiving paper copies, please email members@amnh.org.

rotunda

ISSN 0194-6110
USPS Permit #472-650
Vol. 32, No. 4, July/August/September 2007

Lewis W. Bernard, *Chairman*
Ellen V. Futter, *President*
Lynn DeBow, *Senior Vice President for Development and Membership*
Rosemary Caulk, *Director of Membership*

Rotunda is published bimonthly, except for a combined issue in July/August/September and a single issue in December, by the Membership Office of the American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192. Phone: 212-769-5606. Web address: www.amnh.org. Museum Membership of $70 per year and higher includes a subscription to *Rotunda*.

© 2007 American Museum of Natural History.
Periodical postage paid at New York, NY, and at additional mailing offices. Postmaster: please send address changes to *Rotunda*, Membership Office, AMNH, at the above address. Printed in the USA.

Seminars on Science: Online Science Educati

Almost ten years ago, the American Museum of Natural History launched Seminars on Science, a groundbreaking online professional development program for science teachers. Leveraging the Museum's unparalleled scientific expertise and abundant resources, Seminars on Science quickly garnered acclaim for its unique ability to give science educators access to working scientists and their active research projects. Seminars on Science reaches "beyond the walls" to support close to 600 K–12 teachers across the United States each year through courses that improve scientific understanding.

There are currently ten online courses in the life, Earth, and physical sciences. Each six-week course includes original writings by Museum scientists, compelling imagery, engaging videos, interactive simulations, and lively online discussions that engage educators in both scientific content and classroom application.

Museum scientists collaborate on each course with a team of professional developers and educational technology experts in the Museum's National Center for Science Literacy, Education, and Technology. The courses provide teachers with a unique opportunity to deepen their content knowledge, work with actual scientific data, interact with working scientists and experienced science educators, and gain valuable resources for use in the classroom. Graduate credit is available through a set of higher-education partnerships.

Independent evaluation indicates that teachers who participate in a Seminars on Science course learn significant new science content, gain insight into the process of scientific research, obtain valuable teaching resources, and prefer Seminars on Science to other professional development programs. The program has garnered several awards from professional organizations—including major awards from the United States Distance Learning Association and the Software and Information Industries Association—and has been disseminated at national and regional conferences such as those of the National Science Teachers Association and the American Physical Society and at Harvard University.

With new and expanded partnerships in place with the International Baccalaureate Organization and Western Governors University (in addition to existing partnerships with the City University of New York, Bank Street College, and several other colleges and universities across the United States), the program expects steady enrollment growth over the next several years. Two brand-new courses should generate further interest: "Evolution," coauthored by Joel Cracraft, Curator, Department of Ornithology, and Niles Eldredge, Curator, Division of Paleontology, and "The Solar System," coauthored by Denton Ebel, Associate Curator, Department of Earth and Planetary Sciences, and Neil deGrasse Tyson, Frederick P. Rose Director of the Hayden Planetarium.

During the next year, Seminars on Science will explore the opportunities for blending face-to-face and online experiences where feasible, and will investigate new and emerging technologies to ensure continued leadership in online science education. As it does so, it will continue to grow and maximize its impact in preparing both the current and future generations of teachers.

Further information on Seminars on Science, including scientist bios and sample essays, videos, and interactives, is available at learn.amnh.org.

Seminars on Science was launched with leadership support from The Atlantic Philanthropies and is funded, in part, by the Sherman Fairchild Foundation.

SEMINARS ON SCIENCE COURSES

Powderblue surgeonfish | R. Mickens/AMNH

The Diversity of Fishes

Fishes make up half of all vertebrate species alive today, and live everywhere from mountain streams to ocean depths. This course explores the incredible diversity of fish species by demonstrating how ichthyologists pursue evidence through the study of evolution, ecosystems, and biogeography.

Paria Canyon, Utah | AMNH

Earth: Inside and Out

The Earth and its atmosphere form a dynamic system in a state of constant flux. This course demonstrates how geologists "read the rocks," delve into the geological events that shaped the planet over millions of years, and consider the interconnected systems that cause earthquakes, volcanoes, and major climate changes.

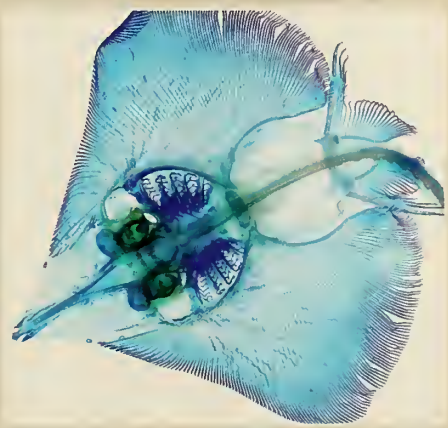
Genetics, Genomics, Genethics
This course explores a scientific frontier: how scientists are investigating and applying the information contained in genetic codes. Examine the tools and techniques used in a molecular biology lab, learn about the Human Genome Project, and discuss the ethical issues involved in emerging fields like genetic enhancement, genetically modified foods, and cloning.

In the Field with Spiders
Did you know that you're rarely more than six feet away from a spider? In this course, scientists who specialize in spiders bring hands-on field work—observing, journaling, and collecting—together with laboratory techniques to demonstrate the critical intertwining of the two.

The Link between Dinosaurs and Birds
Overwhelming evidence suggests that one branch of the dinosaur family tree managed to survive, and that we see living dinosaurs every day—in the form of birds. This course examines which of the theropod group of dinosaurs are most closely related to modern birds, and how paleontologists decipher these evolutionary relationships.

Fighting dinosaurs from Mongolia | D. Finnin/AMNH

The Ocean System
The physical characteristics of the ocean and its related systems have framed its origin, incredible diversification of life, and amazing ecosystems. This course explores how oceanographers investigate the interactions of the ocean and other systems—atmospheric, biological, geological, and others—that shape our dynamic planet, now threatened by human activities and consumption.



False color X-ray image of a ray | AMNH/Department of Ichthyology

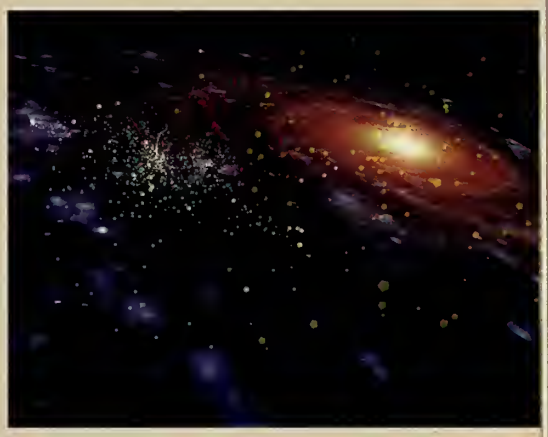
Sharks and Rays
Long featured in myths and legends, sharks may be one of the most readily recognized marine species. But did you know that rays are one of their closest relatives? This course examines the fossil evidence along with living sharks and rays to understand their evolutionary relationship, how they navigate in the dark seas, what other extraordinary sensory and reproductive features are shared by sharks and rays, and why shark conservation is critical.

Space, Time, and Motion
This course explores our changing comprehension of motion, time, space, and matter through the ideas of scientists ranging from Galileo to Einstein to superstring theorists. Participants learn how physicists measure mass, time, and the speed of light, and deepen their understanding of relativity, quantum mechanics, and "theories of everything."

Chimpanzee, modern human, and Neanderthal skeletons | R. Mickens/AMNH

Evolution
This new course provides a firm understanding of the basic mechanisms of evolution and how these mechanisms have given rise to the great diversity of life in the world today. The course also explores how new ideas, discoveries, and technologies are causing scientists to modify prior evolutionary concepts and how evolutionary biology contributes to advances in medicine, public health, and conservation.

The Solar System
Starting with the easily observable and moving on to the newest astronomical discoveries, this course explores the elements of our solar system and how they interact. It addresses how our solar system formed, what makes a planet a planet, and the clues scientists have found in the search for life beyond Earth.



Milky Way Galaxy model | AMNH/NASA

Members' Programs

Programs are available to Members only, unless a non-Member's price is given.

Short-tailed fruit bat | Fenton, M. Brock, 1992, from *Bats*

BEHIND-THE-SCENES TOURS

Behind the Scenes in Mammalogy

Wednesday, October 24 MB102407A,B,C
6:30, 7:00, 7:30 p.m.
$30

The Museum's mammal collection is among its oldest and houses over 275,000 specimens. Tour the diverse bat collection, which contains specimens of many rare and extinct species from around the world, with Scientific Assistant Eileen Westwig.

Then, Collections Specialist Neil Duncan will talk about the importance of the fluid-preserved specimen facility and the department's colony of carnivorous dermestid beetles.

LECTURES

The Unnatural History of the Sea

Tuesday, October 2 ML100207
7:00 p.m.
Kaufmann Theater
$13.50 ($15 Non-Members)

Drawing on firsthand accounts of early explorers, pirates, and fishers, as well as his own adventures, Callum Roberts explores the colorful history of commercial fishing and traces the depletion of marine life in his book *The Unnatural History of the Sea*. He also suggests how we might restore the splendor and prosperity of the seas through smarter management and some simple restraint.

The Immortalists

Thursday, October 11 ML101107
7:00 p.m.
Kaufmann Theater
$13.50 Members ($15 Non-Members)

Writer and reporter David M. Friedman's *The Immortalists* tells the story of aviator Charles Lindbergh and Nobel Prize–winning surgeon Alexis Carrel and their successful quest to build a machine that could keep organs alive outside the body, a crucial step in the development of open-heart surgery and organ transplants. The book recounts this medical pursuit as well as the unique friendship and scientific partnership between two of the most ambitious thinkers in modern history.

The Lettie G. Howard | Courtesy of the South Street Seaport Museum; photo by Alison Langley

Leviathan: The History of Whaling in America

Tuesday, October 30 ML103007
7:00 p.m.
Kaufmann Theater
$13.50 Members ($15 Non-Members)

Marine writer Eric Jay Dolin chronicles the social and economic history of the whaling industy in America, from its early struggles during the Revolutionary period to its golden age in the mid-1800s to its decline in the 20th century. Dolin also considers the natural history of whales themselves, and does not neglect the men of the industry, who mutinied and murdered but also recorded their experiences in scrimshaw and journals.

EXPEDITIONS

Hudson River Sail

Saturday, September 15 MO091507
10:00 a.m.–12:00 noon
$95

Enjoy a private sail aboard the historic *Lettie G. Howard*, a fishing schooner used along the Atlantic seaboard during the 19th century. Join geologist Alan Rice of the Department of Earth and Planetary Sciences for an educational sail on the Hudson. Learn about the cultural heritage of the area and ecology of the river. Onboard educators from the South Street Seaport Museum will discuss the history of the boat and traditional sailing and maritime techniques. A light breakfast will be served on board.

Exploring New England's Natural Treasures: Past and Present

Saturday, October 13 MO101307
9:00 a.m.–6:00 p.m.
$125

Ethnobotanist E. Barrie Kavasch guides this walking tour through the colorful Northwest Hills of historic Kent, Connecticut. Visit the Sloane-Stanley Museum and view early American tools and artifacts, take a guided tour of the Connecticut Museum of Mining and Mineral Science, and explore the Kent Greenhouse and Gardens to examine local plants and herbs. The day includes a traditional lunch at the Fife'n Drum Restaurant in the center of Kent. Fee includes transportation by private coach and lunch.

Wildlife in Art

Saturday, October 27 MO102707
9:00 a.m.–5:00 p.m.
$95

Trace the origins of animals in art from the earliest prehistoric renderings of mammoths and bison on the cave walls of Europe to the present-day expressions of wildlife art. Join Steve Quinn of the Department of Exhibition for an exclusive tour of the Museum's dioramas and the newly renovated Audubon Gallery. Then, journey to the Hiram Blauvelt Art Museum in Oradell, New Jersey, for a look at contemporary wildlife art and a private tour with the museum's director. Fee includes transportation by private coach.

WALKING TOURS

Riverside Park

Wednesday, August 15 MW081507
10:00 a.m.–12:00 noon
$28

From the Soldier's Monument on Riverside Drive, this walk will head north along the Hudson River. Explore the history and geology of the area with geologist Sidney Horenstein. Learn about the design, architecture, and history of the original drive and park.

Swift fox watercolor painting by John James Audubon | D. Finnin/AMNH

Finally, see who is interred in the place where the journey ends—Grant's Tomb.

Roosevelt Island

Thursday, August 23 MW082307
10:00 a.m.–12:00 noon
$28

Geologist Sidney Horenstein leads an exclusive walking tour of Roosevelt Island in the East River. Horenstein will discuss the geological features of the island, the origin of the East River, and the history of the New York area. Enjoy a unique view of the Queensboro Bridge and the fascinating landmarks on the island.

HALL TOURS

Legendary Creatures

Sunday, August 19 MH081907
3:00–4:30 p.m.
Portrait Room
Free (reservations required)

Through the ages, fantastic and magical creatures have appeared in myths and legends in cultures around the world. Join Museum Tour Guide Eileen Flood and journey through the Hall of Reptiles and Amphibians, the fossils halls, and more as she explores the anthropological origins and natural history of mythic creatures.

Humans, and How We Got That Way

Sunday, September 16 MH091607
3:00–4:30 p.m.
Portrait Room
Free (reservations required)

Join Museum Tour Guide Andrew Epstein for this tour through the newly renovated Spitzer Hall of Human Origins and trace the evolutionary path of *Homo sapiens* and our early ancestors. Epstein discusses the tools scientists use today to study human origins, including cutting-edge genomic research, and explores "creativity" in humans and other species.

Sloane-Stanley Museum, Kent, Connecticut | F. McAuliffe

Things That Creep, Crawl, Slither, and Sting

Sunday, October 28 MH102807
3:00–4:30 p.m.
Portrait Room
Free (reservations required)

Creatures that slither, slide, wiggle, and squish come in all sizes, shapes, and colors. Some are extinct, some are endangered, and some thrive but with unusual habits. Join AMNH Tour Guide Larry Bassett on this unique hall tour focusing on some creepy creatures lurking in the Museum's halls.

FAMILY & CHILDREN'S PROGRAM

Frog Masks

Saturday, August 25
10:30 a.m.–12:00 noon MW082507A
1:30–3:00 p.m. MW082507B
Rose Center Classroom
(Ages 5 and up, each child with one adult)
$50/pair

Brilliant orange, bright blue, dazzling red—frogs come in an astonishing array of colors, one of the reasons they are an inspiration to artists and scientists alike. Join Museum Tour Guide June Myles for a tour of the exhibition *Frogs* to see live frogs in their habitats. Back in the classroom, create your very own frog mask using an assortment of colorful paper and paint.

Meet the Meerkat and *Hello, Bumblebee Bat*

Saturday, October 20 MC102007
2:00 p.m.
Linder Theater
$13.50 Members ($15 Non-Members)

Roam the Kalahari Desert with a family of playful meerkats, and then fly by night through the forests of western Thailand with the secretive bumblebee bat! Join AMNH mammalogist Darrin Lunde and award-winning scientific illustrator Patricia Wynne as they discuss their books *Meet the Meerkat* and *Hello, Bumblebee Bat*. Learn about the bodies, behaviors, habitats, and diets of these fascinating creatures.

Delightful Dragons and Mythical Monsters

Sunday, October 28
10:30 a.m.–12:00 noon MC102807A
1:30–3:00 p.m. MC102807B
Rose Center Classroom
$28

With educator Arthur Horan, explore the special exhibition *Mythic Creatures* and learn how early naturalists viewed mysterious creatures of land, air, and sea. Sketch the fossils of creatures like the pterodactyl and giant sloth on the fourth floor. Then, back in the classroom, create a clay model of your own mythic monster or dragon and a story to go with it.

The giant sloth in the fossil halls | D. Finnin/AMNH

PREVIOUSLY LISTED

Limited space may still be available for these programs.

Ancient Amber Fields of New York and New Jersey

Saturday, July 14 MO071407
9:00 a.m.–5:00 p.m.
$95

Museum paleoentomologist Paul Nascimbene leads this tour through geological history and ancient fossils in amber. First, visit the Staten Island Institute of Arts and Sciences and view the historic clay pit and amber exhibitions. Then, stop at Staten Island's Clay Pit Ponds State Park Preserve to see the remnants of pits once used for brick making and ceramics. Finally, search for amber at central New Jersey's Raritan formation. Bring lunch, a trowel, and a collecting bag. Fee includes transportation by private coach and admissions.

Crystal Cave and Lost River Parks

Saturday, July 28 MO072807
9:00 a.m.–6:00 p.m.
$95

Go underground in eastern Pennsylvania with Museum geologist Joe Boesenberg. At Crystal Cave, discovered in 1871, you'll see an impressive display of calcite and aragonite crystals slowly carved by nature through the ages. Then, travel to nearby Lost River Caverns to see fluorescent minerals and the mysterious Lost River that runs through the cavern. Fee includes transportation by private coach and admissions.

Too Cool for School: Doctoral Degrees

The American Museum of Natural History made educational history late last year when it announced the establishment of the Richard Gilder Graduate School—a Ph.D.-granting institution under the auspices of the Museum. Approved by the New York State Board of Regents, this is the first time that an American museum has been granted the authority to award its own Ph.D. degree.

The Museum has a prestigious record dating back to 1908 of training graduate students in partnership with some of the nation's leading universities and colleges, currently including Columbia, Cornell, the City University of New York, and New York University. Students who received their degrees from one of the Museum's partner universities currently work as professors and curators at major universities, research institutes, natural history museums, and conservation organizations across the country and around the world. These partner relationships will continue even as the Museum's creates its own Ph.D. program, marking a bold and logical extension of its role in science education and advancing its leadership position in the scientific and academic communities.

The Museum's initial Ph.D. program, carrying on its legacy of excellence in field discovery and theoretical advances, will focus on comparative biology, one of the most exciting and challenging research areas in the biological sciences today, covering the origins, history, and range of life on Earth. The Museum is uniquely qualified to provide the direction and intensive training that will produce world-class scientists. The program is grounded in the Museum's scientific resources, including its world-renowned collections of more than 30 million specimens and cultural artifacts that constitute an irreplaceable record of life, the largest independent natural history library in the Western Hemisphere, and an internationally recognized staff of curators who will serve as faculty for the new Richard Gilder Graduate School. John J. Flynn, Chairman of the Division of Paleontology and Frick Curator of Fossil Mammals, has already been appointed the first Dean of the school.

The first class in the Richard Gilder Graduate School will enter in fall 2008, but interest is already mounting as the Museum readies for the historic first day of school. The program is designed to attract a select, highly motivated group of the most qualified students interested in biological science.

The planned curriculum for the school features a novel combination of intensive, flexible, collections- and field-based studies. In their first year, students will be required to take three core courses: Evolution; Systematics and Biogeography; and Grantsmanship, Ethics, and Communication. And they will be expected to work on their own research as early as the first semester of their first year, rapidly establishing their scientific credentials. To foster a strong sense of community and encourage collaboration, existing space within the Museum is being renovated to create a "home" for the students within the school's complex of classrooms, lecture halls, and conference areas.

The students will have the advantage of working with some of the most advanced state-of-the-art scientific facilities in the world, located on-site at the Museum, including three molecular laboratories, a powerful parallel computing facility, a frozen tissue collection with a one-million-sample capacity, and an imaging and microscopy laboratory.

In addition to the initial Ph.D. program in comparative biology, the Richard Gilder Graduate School will be an umbrella for all the Museum's post-secondary training programs in science, serving to solidify and invigorate the Museum's intellectual community including doctoral work in fields other than biology, undergraduate training programs, and postdoctoral fellowships.

The Museum's treasured public halls will serve as a campus unlike any other for the Museum's new Richard Gilder Graduate School. | Don Hamerman

Four donors have, combined, given more than $50 million to support the new graduate school in endowment, fellowship support, and capital enhancements required to accommodate the new Graduate School: the Gilder Foundation, the Hess Foundation, Inc., an anonymous Museum Trustee, and the City of New York—the Department of Cultural Affairs and the New York City Council.

Public Programs

These programs are available to the general public
Call 212-769-5200 for information and tickets

Yomodo with seven-foot-long Klingon killer worm and three-foot-long prehistoric horseshoe crob | Leslie Van Stein

Art/Sci Collision: Taxidermy Curiosities

Tuesday, July 10 EL071007
7:00 p.m.
Linder Theater
$15 ($13.50 Members)

Takeshi Yamada, award-winning artist and visual anthropologist, carries on the 19th-century tradition of "gaffs"—man-made objects passed off as real natural wonders or oddities. Yamada reinterprets this distinctively American art form, and has sculpted over 250 one-of-a-kind gaffs, including a chupacabra, fossilized fairies, two-headed snakes, giant vampire bats, hairy trout, and, of course, Fiji mermaids.

This program is mode possible, in port, by the Alloire Fomily ond Ruth A. Unterberg.

Evening Bat Walk

Friday, July 20 EW072007
8:30 p.m.
$20
Enrollment limited

Join the New York Bat Group for a bat walk through Central Park. At dusk, bats leave the warm spaces under city roofs to feed on flying insects. Aided by a bat detector that amplifies their otherwise inaudible high-frequency chirps, bat watchers are monitoring and cataloging the species that inhabit New York. Please note you must register at least one week in advance. Rain date is Friday, July 27.

GLOBAL WEEKENDS
Indigenous Peoples Day

Saturday, August 11
1:00–5:00 p.m.
Kaufmann and Linder Theaters
Free with Museum admission

In recognition of the United Nations' International Day of the World's Indigenous Peoples, this afternoon features special concert performances, cultural presentations, panel discussions, and films. This program is cosponsored with the NGO Committee on the United Nations International Decade of the World's Indigenous People.

Globol Weekends are made possible, in port, by The Coco-Cola Compony, the City of New York, the New York City Council, ond the New York City Deportment of Culturol Affoirs. Additionol support hos been provided by the Moy ond Somuel Rudin Fomily Foundotion, Inc., the Tolon Fomily, ond the fomily of Frederick H. Leonhordt.

Robots in Space I (Beginner)

Tuesday–Thursday,
September 25–27 RC092507
4:00–5:30 p.m.
Rose Center Classroom, fourth floor
$90

Ever wonder how and why we use robots in space? Discover how we use robotic rovers and probes to explore places in space where humans cannot survive. In this class children will design and build robots using the Lego Mindstorm design system. (Ages 8–10)

View of the Remote Monipulotor System extending over Eorth | NASA-HQ-GRIN

An Evening with Wangari Maathai

Tuesday, September 25 EL092507
7:00 p.m.
Kaufmann Theater
$15 ($13.50 Members)

Wangari Maathai, 2004 Nobel Peace Prize winner, is a celebrated political activist, feminist, and environmentalist. She is the founder of the Green Belt Movement, an environmental group in Kenya that, since 1977, has restored indigenous forests and assisted rural women by paying them to plant trees in their communities. Maathai is currently Kenya's Deputy Minister for the Environment and Natural Resources and a Member of Parliament. Her new memoir, *Unbowed*, will be available for signing. Maathai will be introduced by Eleanor Sterling, Director of the Museum's Center for Biodiversity and Conservation.

The Alosko brown beor is on ideol subject for a drawing workshop. | J. Beckett and D. Finnin/AMNH

Animal Drawing

Eight Thursdays, September 28–
November 12 EW092807
7:00–9:00 p.m.
$160 (Materials not included)
Enrollment limited to 25

The celebrated dioramas, dinosaur skeletons, and other distinctive features of the Museum serve as the setting for an intensive after-hours drawing course with Stephen C. Quinn, Department of Exhibition AMNH, and author of *Windows on Nature*. Learn about the gifted artists who created the world-class dioramas as you sketch subjects in their "natural" environments.

AMERICAN MUSEUM OF NATURAL HISTORY

MUSEUM SHOP

Fun-damental Science

a gifted idea.

Pin Head 3-Dimensional Pin Sculpture

Galilleo Thermometer in Cherry

Plasma 360 Lamp

Nature's Fire Undersea Volcano

Consistent bestsellers, these clever gizmos amplify facets of physics and other natural phenomena while adding a delightful bit of whimsy to any desk.

To place orders, call our Personal Shopper at 1-800-671-7035 or shop at

www.amnhshop.com

General Information

HOURS
Museum: Daily, 10:00 a.m.–5:45 p.m.
The Museum is closed Thanksgiving and Christmas.
Space Show: Every half hour, 10:30 a.m.–4:30 p.m.
Research Library: Tuesday–Thursday, 2:00–5:30 p.m.
Hours are subject to change.

ENTRANCES
During Museum hours, visitors may enter through the subway (lower level), Central Park West at 79th Street (second floor), and the Rose Center/81st Street entrances. The Columbus Avenue entrance is open on weekends and holidays. The 77th Street entrance is closed until further notice.

TRANSPORTATION AND PARKING
Subway: B (weekdays) or C to 81st Street;
1 to 79th Street
Bus: M7, M10, M11, or M104 to 79th Street;
M79 to Central Park West
Parking Garage: Open daily, 8:00 a.m.–11:00 p.m.; enter from West 81st Street. Members receive a discounted rate of $10 if entering after 4:00 p.m. To receive this rate, you must have your parking ticket validated at the Security Desk (first floor, Central Park West entrance). For more information, call 212-313-7278.

FOOD SERVICE
Museum Food Court: Daily,
11:00 a.m.–4:45 p.m. (*lower level*)
Café on 1: Seasonal hours, as posted (*first floor*)
Starlight Café: Saturday and Sunday,
11:00 a.m.–4:45 p.m (*first floor*)
Café on 4: Saturday and Sunday,
11:00 a.m.–4:45 p.m (*fourth floor*)
Juice Bar: Seasonal hours, as posted (*lower level*)
Hours are subject to change.

MUSEUM SHOPS
The following Museum Shops are open during regular Museum hours:
Main Shop (*first and second floors*)
Dinostore (*fourth floor*)
Planetarium Shop (*Rose Center, lower level*)
Cosmic Shop (*Rose Center, second floor*)
Gold Shop: Closes August 19 (*third floor*)
Mythic Creatures Shop (*fourth floor*)
Frogs Shop (*first floor*)
Online Shop (*www.amnh.org*)

PHONE NUMBERS

Museum Information	212-769-5100
Membership Office	212-769-5606
Central Reservations	212-769-5200
AMNH Expeditions	212-769-5700
Communications	212-769-5800
Development	212-769-5151
Education	212-769-5304
Event & Conference Services	212-769-5350
Library Services	212-769-5400
Member Birthday Parties	212-769-5606
Museum Shop	800-671-7035
Natural History Magazine	646-356-6500
Patrons Circle	212-769-5153
Planetarium Information	212-769-5900
Planned Giving Office	212-769-5119
Volunteer Office	212-769-5566
Web Site	www.amnh.org

www.amnh.org

AMERICAN MUSEUM OF NATURAL HISTORY

GRAND GLITTER

On display in the Grand Gallery is the Museum's latest mineral acquisition, a gorgeous, sparkling stibnite specimen. Stibnite is a compound of the elements antimony and sulfur; this specimen is believed to have formed some 130 million years ago when water heated by volcanic activity dissolved the two elements from surroundings rocks and flowed between layers of limestone. It was discovered and spared from destruction by antimony miners in southeastern China. This piece is unusual for having so many free-standing crystals intact—hundreds of sword-like, metallic blue-gray crystals sprouting from a rocky base. Weighing just under half a ton, this is the largest one on public display in the world.

Membership Department
Central Park West at 79th Street
New York, New York 10024-5192
www.amnh.org

Rotunda.
American Museum of Natural History
Received on: 06-21-07

rotunda

VOL. 32 NO. 5 OCTOBER/NOVEMBER 2007

MEMBERS' NEWSLETTER

AMERICAN MUSEUM OF NATURAL HISTORY

Museum Notes

CURRENTLY ON VIEW

The Butterfly Conservatory

Opens October 6, 2007
Whitney Memorial Hall of Oceanic Birds
Admission is by timed entry only. Tickets are $10 for Members and $6 for Members' children.

The butterflies are back for their tenth year, with up to 500 live, free-flying tropical butterflies. Visitors can mingle with the butterflies and view illustrated displays that describe the butterfly life cycle, defense mechanisms, evolution, and conservation.

The chupocobro is o recently reported creoture thot kills onimols by sucking their blood ond hos mode its woy into populor culture. | D. Finnin/AMNH

Mythic Creatures: Dragons, Unicorns, and Mermaids

Through January 6, 2008
Gallery 4
Free for Members

Mythic Creatures traces the cultural and natural history roots of some of the world's most enduring legendary beings of land, sea, and air. Cultural artifacts bring to light surprising similarities—and differences—in the ways peoples around the world have depicted these strange and wonderful beings, and fossil specimens suggest a physical basis for the many forms they have taken.

Mythic Creatures: Dragons, Unicorns, and Mermaids *is orgonized by the Americon Museum of Noturol History, New York (www.omnh.org), in colloborotion with The Field Museum, Chicogo; Conodion Museum of Civilizotion, Gotineou; Austrolion Notionol Moritime Museum, Sydney; ond Fernbonk Museum of Noturol History, Atlonto.*

Mythic Creatures *is proudly supported by MetLife Foundotion.*

Undersea Oasis: Coral Reef Communities

Through January 13, 2008
Akeley Gallery

Brilliant color photographs by Idell Conaway capture the dazzling invertebrate life that flourishes on coral reefs. In a diverse and delicate ecosystem, creatures from sea squirts to the elusive chambered nautilus depend on the reef to survive.

Beyond

Through April 6, 2008
IMAX Corridor

Michael Benson takes visitors on a journey through our solar system with some of the most stunning images ever captured by unmanned space probes.

The presentotion of both Undersea Oasis *ond* Beyond *ot the Americon Museum of Noturol History is mode possible by the generosity of the Arthur Ross Foundotion.*

The Unknown Audubons: Mammals of North America

Through January 6, 2008
Audubon Gallery

The stately Audubon Gallery showcases the last great work by John James Audubon, best-known for his bird paintings. His gorgeously detailed depictions of North American mammals, the "unknown" Audubons, resonate within today's context of environmental awareness.

Major funding for The Unknown Audubons: Mammals of North America *hos been provided by the Lilo Wolloce-Reoder's Digest Endowment Fund.*

COVER: *The timely new exhibition,* Water: H_2O = Life, *opens November 3. See poge 4.*

Vital Variety

Ongoing
IMAX Gallery

Beautiful close-up photographs highlight the importance of the immense diversity of invertebrates and their critical role in the survival of humankind.

Lote northern summer on Mors | Illustration based on drawing by Miha Tursic/ASOBI

HAYDEN PLANETARIUM SHOWS

Cosmic Collisions

Journey into deep space—well beyond the calm face of the night sky—to explore cosmic collisions, hypersonic impacts that drive the dynamic formation of our universe. Narrated by Robert Redford.

Cosmic Collisions *wos developed by the Americon Museum of Noturol History, New York (www.omnh.org), in colloborotion with the Denver Museum of Noture & Science; GOTO, Inc., Tokyo, Jopon; ond the Shonghoi Science ond Technology Museum.*

Mode possible through the generous support of CIT.

Cosmic Collisions *wos creoted by the Americon Museum of Noturol History with the mojor support ond portnership of the Notionol Aeronoutics ond Spoce Administrotion, Science Mission Directorote, Heliophysics Division.*

SonicVision

Fridays and Saturdays, 7:30 and 8:30 p.m.

SonicVision is a trip out of this world and into the minds of the universe's most creative digital animators, set to a soundtrack of today's coolest music.

Presented in assoclotion with MTV2 ond in colloborotion with renowned ortist Moby.

Field Trip to the Moon

Wednesdays, 10:30 a.m.

Launched on a rocket and guided by a live presenter, children and adults can see a sunrise in space and orbit and land on the Moon, followed by discussion of what the future might hold for Moon exploration.

IMAX MOVIES

Samuel J. and Ethel LeFrak Theater
For showtimes, visit www.amnh.org or call 212-769-5100.

Dinosaurs Alive

Scientifically accurate, computer-generated images, along with film footage of past and present AMNH paleontologists, bring to life the magnificent, mystifying creatures whose existence and extinction have captivated the human imagination since their fossils were first unearthed.

AND DON'T MISS...

Halloween

Wednesday, October 31
$8 ($9 Non-Members)

The Museum continues its tradition of opening its halls for a safe and "spooky" Halloween. Bring the kids to enjoy trick-or-treating, arts and crafts, cartoon characters, and live performances.

Help us make Halloween even more special by volunteering to hand out candy or lead activities. Contact Rose Ann Fiorenzo at rfiorenzo@amnh.org.

A Night at the Museum Sleepover Program

Friday, November 16 VN111607
Friday, January 11 VN011108
Limited space is available.
Call 212-769-5200, Monday–Friday, 9:00 a.m.–5:00 p.m.
$99 per person for Members

As the doors close and the lights dim, adventurers head out on flashlight tours to see amazing animals past and present, explore Earth, and journey to the edges of the universe before bedding down under the watchful eye of the blue whale in the Milstein Hall of Ocean Life or among the North American Mammals.

One Step Beyond

Friday, October 19
Friday, November 30
9:00 p.m.–1:00 a.m.
Rose Center
$20

One Step Beyond is a spectacular new multimedia party teeming with world-class DJs and live VJs. Young revelers enjoy the latest music and dynamic visuals with dancing and cocktails under the stars (and planets) in the Rose Center.

AMNH Birthday Parties

Linda Kaye's Partymakers presents four spectacular birthday party themes: Dinosaur Discoveries, Cosmic Blast-Off, Safari Adventure, and Underwater Treasure Hunt, each with a winning combination of education and entertainment. Parties are tailored for children ages 4 and up, and are available seven days a week as a benefit to Contributor and higher-level Museum Members only. For more information and to request a date visit www.partymakers.com or call 212-288-7112.

Kids enjoy meeting their favorite characters at the Museum's Halloween celebration. | C. Chesek/AMNH

Party in the Rose Center at the monthly One Step Beyond. | R. Mickens/AMNH

SAVE A TREE

The current issue of *Rotunda* is now available online! Download it at www.amnh.org. If you'd like to stop receiving paper copies, please email members@amnh.org.

rotunda

ISSN 0194-6110
USPS Permit #472-650
Vol. 32, No. 5, October/November 2007

Lewis W. Bernard, *Chairman*
Ellen V. Futter, *President*
Lynn DeBow, *Senior Vice President for Development and Membership*
Rosemary Caulk, *Director of Membership*

Rotunda is published bimonthly, except for a combined issue in July/August/September and a single issue in December, by the Membership Office of the American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192. Phone: 212-769-5606. Web address: www.amnh.org. Museum Membership of $70 per year and higher includes a subscription to *Rotunda*.

© 2007 American Museum of Natural History.
Periodical postage paid at New York, NY, and at additional mailing offices. Postmaster: please send address changes to *Rotunda*, Membership Office, AMNH, at the above address. Printed in the USA.

Water: Everywhere

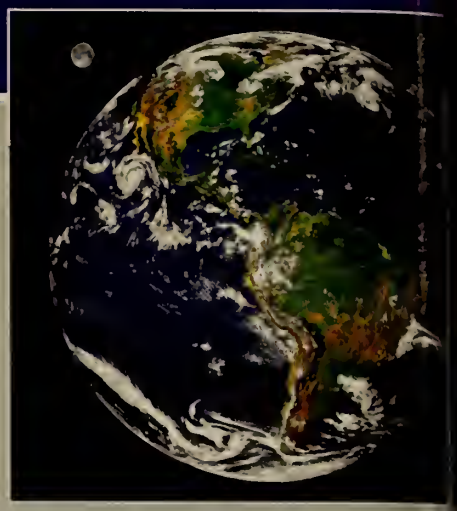
Water. There is, perhaps, no better symbol of the mundane and everyday than the stuff that pours out of taps and that covers more than two-thirds of Earth's surface. Where potable water is abundant, it's easy to take for granted: we drink it, cook with it, bathe in it, wash our dishes and clothes in it, all with hardly a thought. Yet without this ordinary resource, life never would have developed and evolved as we know it. Deprived of it, life would soon disappear. Change its physical properties even slightly and the very face of Earth would be drastically different.

Despite water's importance, a 2006 survey by the American Museum of Natural History found that U.S. residents' knowledge of water varied widely and was generally poor. Only 4 percent of respondents knew, for example, that less than 1 percent of Earth's water is readily available for human use, and 41 percent of those surveyed could not name a single component of the water cycle, such as evaporation or rain. However, the survey also revealed a strong nationwide concern about the effects of human activity on the quality and availability of water around the world. For example, 67 percent said they were very concerned about the quality of fresh water, 63 percent were concerned about water pollution, and 88 percent said they always or sometimes make efforts to conserve water.

In response to both the broad support for protecting water and the general lack of water literacy, the Museum and a group of national and international collaborators have designed the first major exhibition to take an in-depth look at water, its many forms, and the water-related issues that are fast becoming the most significant development challenges of the 21st century. *Water: H_2O = Life* will open November 3, 2007, at the Museum, and remain on display until May 2008, when it will begin an international tour.

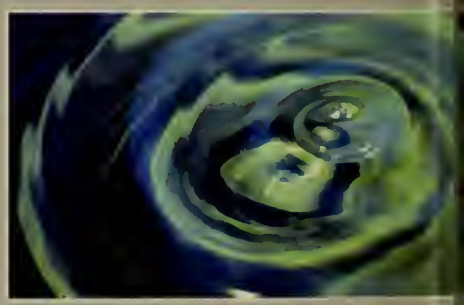
"This eye-opening exhibition will bring visitors closer to water in more ways than they ever imagined possible and will hopefully leave them with a deep sense of responsibility towards conservation of this remarkable ingredient for life," said Eleanor Sterling, Director of the Museum's Center for Biodiversity and Conservation and curator of *Water*. "Water is literally a part of each and every one of us. It is one of the things that connects us to every living thing on Earth and to the planet as a whole."

As visitors enter the gallery, they will come face-to-face with a waterfall and fog screen, setting the tone for an exhibition intended to celebrate the beauty and majesty of water as well as sound a wake-up call for us to examine current and future challenges. Elsewhere in the exhibition, live animals, models, fossils, and specimens from the Museum's collections will exemplify some of the varied and surprising adaptations plants and animals have evolved to survive in extremes of wet and arid conditions—and will also underscore how essential water is to all life. Visitors will learn about mudskippers, fish that can live out of water for extended periods; polar bears, which rely on floating sea ice for hunting; and albatrosses, which spend months to years in the air, obtaining their water from occasional drinks from the sea; as well as the wide range of demands humans place on the planet's water resources.



Images such as this "Blue Marble" composite will be projected onto a three-dimensional sphere to provide a dynamic view of Earth's environment, vividly illustrating in particular, the role of water in shaping our planet. | Stöckli, Nelson, Hasler/GSFC/NASA

Moving from biology to hydrology, detailed satellite images of Earth projected on a six-foot globe, together with a re-creation of a water-sculpted slot canyon, will graphically portray the power of water to drive the climate and literally shape the contours of the planet. The exhibition will also explore the origin of Earth's water; some of its many surprising physical properties, such as why ice floats; and the complex cycle of water in all its forms that we encounter every day. Hands-on exhibits will permit visitors to control dynamic water processes, such as diverting the flow of a river, or to test their "H_2O IQ" with an interactive quiz about



such things as how much water it takes to make a T-shirt or a hamburger.

Throughout history, recognizing the power and importance of water, humans have devised remarkable technologies that have permitted the damming, diversion, and distribution of this resource. Many of these have meant the difference between cultures flourishing or foundering. *Water* will introduce visitors to some of the ways humans have either controlled (or tried to control) water or adapted to life near water, including a look at the world's oldest dam still in use in China, as well as one of the newest—the Three Gorges Dam—and the floating villages of Tonle Sap Lake in Cambodia, which rise and fall with the annual monsoonal floods. The exhibition will also examine the environmental impact of some of these endeavors, as well as some innovative solutions people have developed to obtain power and food sustainably from marine and aquatic systems.

Humanity's long and complex relationship with water will also be depicted through artifacts such as African clay jars and ceremonial ladles from India used to carry water from the sacred Ganges River. Visitors will have the opportunity to heft water jars and learn how the simple act of gathering water every day can influence the course of people's lives—particularly those of women and girls. The exhibition will also examine a more recent water-related phenomenon, bottled water, and learn how manufacturing bottles and shipping water around the world as a luxury good is a creating a serious threat to local water resources.

On a brighter note, *Water* will present a roundup of conservation success stories and individual actions, spotlighting ecologically crucial wetlands that are on the road to recovery after being brought to the edge of destruction by human action. Visitors will tour the Mississippi River delta, the Mesopotamian marshlands of southern Iraq, and the haunting landscape of Mono Lake in California—the last partly re-created in the exhibition as a life-size, walk-through diorama—to hear a message of hope that human action can also act as a healing force in our watery world.

Finally, the exhibition will end with a section that presents New Yorkers' thoughts on water-related issues. Visitors will learn how individual and collective action in their own backyard can make a difference in protecting the stuff of life for other species and for future generations.

Water: H_2O = Life

Opens November 3, 2007
www.amnh.org/water

Water: H_2O = Life *is organized by the American Museum of Natural History, New York (www.amnh.org), and Science Museum of Minnesota (www.smm.org) in collaboration with Great Lakes Science Center, Cleveland; The Field Museum, Chicago; Instituto Sangari, São Paulo, Brazil; National Museum of Australia, Canberra; Royal Ontario Museum, Toronto, Canada; San Diego Natural History Museum; and Singapore Science Center.*

The American Museum of Natural History gratefully acknowledges the Tamarind Foundation for its leadership support, in association with the Johns Hopkins Center for a Livable Future.

The Museum also extends its gratitude to the Ponto Rhea Foundation, Park Foundation, and Wege Foundation for their support of the exhibition's educational programming and materials.

Members' Programs

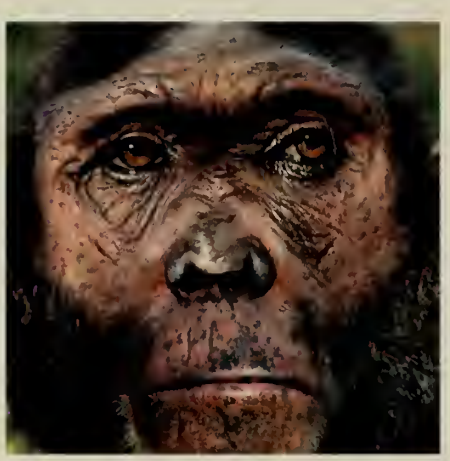
Programs are available to Members only, unless a non-Member's price is given.

BEHIND-THE-SCENES TOUR

Behind the Scenes in Anthropology

Wednesday, November 14 MB111407A,B,C
6:30, 7:00, 7:30 p.m.
$30

Go behind the scenes for a look at human origins. Physical anthropologist Gary J. Sawyer and paleoartist Viktor Deak discuss their research and collaboration on the amazing reconstructions of extinct hominids for the Spitzer Hall of Human Origins. Learn how they use data from present-day animals and humans to create the subtleties of muscle and tissue. Then, paleoanthropologist William Harcourt-Smith of the Division of Paleontology discusses his research on the origins of bipedalism and other work being done on primate evolution.



Homo rudolfensis | Image © Viktor Deak

LECTURES

No Way Home

Tuesday, November 13 ML111307
7:00 p.m.
Kaufmann Theater
$13.50 ($15 Non-Members)

Join David S. Wilcove, Professor of Ecology and Evolutionary Biology at Princeton University, as he discusses his book *No Way Home: The Decline of the World's Great Animal Migrations*. Wilcove explores animal migration and the dangers our current environment presents for the successful growth of species that migrate.

Alan Rabinowitz | Courtesy of Wildlife Conservation Society

Life in the Valley of Death

Tuesday, November 20 ML112007
7:00 p.m.
Kaufmann Theater
$13.50 ($15 Non-Members)

Alan Rabinowitz, Director for Science and Exploration at the Wildlife Conservation Society, based at the Bronx Zoo, discusses his book *Life in the Valley of Death*, about the largest tiger reserve in Myanmar. Rabinowitz's field research over the last decade has taken him to rugged territory throughout Asia, and to a little-known, malaria-filled valley in Myanmar that was once dubbed "the valley of death." Discover how this tiger reserve will benefit both people and wildlife and what is being done to preserve this amazing species.

Wolf Empire

Tuesday, December 11 ML121107
7:00 p.m.
Kaufmann Theater
$13.50 ($15 Non-Members)

Having spent more than three decades educating people about wolves while living with, observing, and photographing them, wildlife photographer and environmentalist Scott Ian Barry discusses his book *Wolf Empire: An Intimate Portrait of a Species*. Discover why the preservation of these incredible mammals is essential, and what we can do to help protect their future. Barry helps us understand the wide array of social behavior, intelligence, and personality of wolves, a species as diverse as humans.

FAMILY & CHILDREN'S PROGRAMS

Nature's Food Chain: More Than a Meal

Sunday, November 18
MC111807A
10:30 a.m.–12:00 noon (Ages 5–7)
MC111807B
1:30–3:00 p.m. (Ages 8 and up)
Rose Center Classroom, second floor
$28

Educator Arthur Horan leads this workshop about the interdependence of animals at the top and bottom of the food chain. Learn how humans, plants, and animals depend on each other for survival. Explore the Museum's dioramas and see examples of how different animals eat, some alone and some in groups. Back in the classroom, create your own diorama with your favorite animals sharing a meal.

Gingerbread House Workshop

Sunday, November 25
MC112507A *10:30 a.m.–12:00 noon*
MC112507B *1:30–3:00 p.m.*
$75/pair (Ages 5 and up, each child with one adult)

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 place each gumdrop, starlight, and candy cane. Young contractors' eyes will sparkle and their mouths will water as they sample the building materials to guarantee suitability. Consultant June Myles will

sian Leopard and Peafowl diorama | C. Chesek/AMNH

e on hand to help create these no-ake gingerbread fantasies.

Magnificent Mammals and heir Extinct Relatives

unday, December 2
MC120207A
0:30 a.m.–12:00 noon (Ages 5–7)
MC120207B
:30–3:00 p.m. (Ages 8 and up)
Rose Center Classroom, second floor
$28

Mammals evolved at nearly the same ime as the first dinosaurs. With educator Amy O'Donnell, sketch the Museum's amazing dioramas, fossil mounts, and early natural history paintings. Collect clues to learn the differences and similarities between modern mammals and their extinct relatives, and discover how scientists classify mammals. Then, create a pop-up book of your favorite critter and its habitat.

HALL TOURS

Extraordinary Journeys

Sunday, November 4 MH110407
3:00–4:30 p.m.
Portrait Room
Free (reservations required)

Throughout history, extraordinary journeys led by great scientists, photographers, and explorers have increased our knowledge of the world and the universe. Starting with the expedition to the Moon and extending back to voyages across the Pacific Ocean, Museum Tour Guide Berna Villiers leads a hall tour revisiting various historic journeys and the consequent discoveries.

Birding around the World

Wednesday, November 7 MH110707
6:30–8:00 p.m.
$30

Bring your binoculars and join naturalist Stephen C. Quinn of the Department of Exhibition for a birding tour of the Museum's famous diorama halls. Test your skills in identifying the rare as well as the common birds that reside in these renowned works of art. We guarantee the sighting of passenger pigeons and an ivory-billed woodpecker!

PREVIOUSLY LISTED

Limited space may still be available for these programs.

The Unnatural History of the Sea

Tuesday, October 2 ML100207
7:00 p.m.
Kaufmann Theater
$13.50 ($15 Non-Members)

Callum Roberts explores the history of commercial fishing and the depletion of marine life and goes on to suggest how we might restore the prosperity of the seas.

The Immortalists

Thursday, October 11 ML101107
7:00 p.m.
Kaufmann Theater
$13.50 Members ($15 Non-Members)

David M. Friedman tells the story of the medical breakthrough by aviator Charles Lindbergh and Nobel Prize–winning surgeon Alexis Carrel and of their friendship.

Exploring New England's Natural Treasures

Saturday, October 13 MO101307
9:00 a.m.–6:00 p.m.
$125

Enjoy a walking tour through historic Kent, Connecticut: visit the Sloane-Stanley Museum, the Connecticut Museum of Mining and Mineral Science, and the Kent Greenhouse and Gardens. Fee includes transportation by private coach and lunch.

Meet the Meerkat and *Hello, Bumblebee Bat*

Saturday, October 20 MC102007
2:00 p.m.
Linder Theater
$13.50 Members ($15 Non-Members)

These two children's books enchant while educating. Join the authors to learn about the lives of the meerkat and the bumblebee bat.

Behind the Scenes in Mammalogy

Wednesday, October 24 MB102407A,B,C
6:30, 7:00, 7:30 p.m.
$30

Mammalogy staff guide a tour into the Museum's mammal collection, highlighting bats and fluid-preseved specimens, and the carnivorous dermestid beetles.

Wildlife in Art

Saturday, October 27 MO102707
9:00 a.m.–5:00 p.m.
$95

Trace animals in art from prehistory to the present day with a tour of the Museum's dioramas followed by a trip to the Hiram Blauvelt Art Museum in Oradell, New Jersey. Fee includes transportation by private coach.

Leviathan: The History of Whaling in America

Tuesday, October 30 ML103007
7:00 p.m.
Kaufmann Theater
$13.50 ($15 Non-Members)

Eric Jay Dolin chronicles the social and economic history of the whaling industry in America, the natural history of whales, and the records of the men of the industry.

Join the Junior Council for 2007–2008

The **Junior Council** is a Museum membership group of philanthropic young New Yorkers, 22 to 39 years old. Members participate in a year-long program of specially arranged events and enjoy an intimate view inside the Museum's collections, activities, and exhibitions. The Junior Council is a great way to meet people with similar interests while previewing the latest, most talked-about exhibitions and going behind the scenes at one of the world's greatest museums.

Enrollment for the 2007–2008 season ends December 14, 2007, so join now and don't miss any of the activities.

For more information, please visit www.amnh.org/join/junior_council or contact Adrienne Davis at 212-769-5167 or adavis@amnh.org.

Winter Dance *February 13, 2007*

Lauren Dudley, Pete Janney, and Juniar Cauncil Steering Cammittee members Mark Kleinknecht and Jessica Harter | © R. Mickens/AMNH

Juniar Cauncil Steering Cammittee members Anne V. Shutkin, Ginger Price, Keith Wallach, and Juniar Cauncil Chairman Sarah J. Crews | © R. Mickens/AMNH

Mythic Creatures Reception *June 27, 2007*

Steering Cammittee member Lauren Hachfelder Silverman and friend enjaying an evening under the stars an the Arthur Rass Terrace | © R. Mickens/AMNH

Juniar Cauncil members enjoying cacktails an the spectacular Arthur Rass Terrace averlaaking the Rase Center | © R. Mickens/AMNH

Juniar Cauncil Steering Cammittee members Heather Aran Schulman, Martin and Hally Okner, and Juniar Cauncil member Farley Rentschler | © R. Mickens/AMNH

Spitzer Hall of Human Origins Opening Reception *February 6, 2007*

Juniar Cauncil Chairman Zachary Pamerantz and Lari Taub | © R. Mickens/AMNH

Gold Reception *November 30, 2006*

Face Stackhalm artist applying gald makeup ta a Junior Cauncil guest | © C. Chesek/AMNH

Juniar Council Chairmen Michael T. M. Janes and Dana Wallach Janes with friends | © C. Chesek/AMNH

Guests having fun inside the exhibitian Gald | © C. Chesek//AMNH

Steering Cammittee members Zachary and Kristina Fink | © C. Chesek/AMNH

Give a Gift for All Seasons: AMNH Membership

Your friends and relatives can enjoy all the benefits of Membership, including complimentary Museum general admission and special exhibition tickets, a year's subscription to *Natural History* magazine and to *Rotunda*, invitations to Members' previews, and discounts in Museum Shops and restaurants. Choose the Membership level and we'll do the rest.

Special offer expires December 31, 2007. Not valid for Members renewing their own Memberships.

1. Please send a one-year Membership at the category indicated to the person below:

❑ Individual $70 ❑ Dual $90 ❑ Family $115 ❑ Contributor $195

Recipient's Name _____

Street _____

City _____ State _____ Zip Code _____

2. Please send a one-year Membership at the category indicated to the person below:

❑ Individual $70 ❑ Dual $90 ❑ Family $115 ❑ Contributor $195

Recipient's Name _____

Street _____

City _____ State _____ Zip Code _____

Your Name _____

Street _____ City _____ State _____ Zip Code _____

❑ Enclosed is my check for $ _____ OR

❑ Please charge my: ❑ Visa ❑ MasterCard ❑ American Express

Card Number _____ Exp. Date _____ Signature _____

Make a Gift and Earn Income for Life

A charitable gift annuity is an extraordinary way to make a gift to AMNH, increase your income, and slice your tax bill—all in one transaction. We created our charitable gift annuity program as a service to our many friends who have expressed a desire to make a gift to us and still retain income from their gift property during their lives. The accompanying chart shows the payout rates when payments are made to one person.

Transfer at least $20,000 in cash or stock to AMNH to fund a charitable gift annuity, and you (and/or someone else, if you wish) will receive fixed payments for life. The amount we pay may be significantly higher than what you are currently earning. You also get an immediate income tax charitable deduction and a portion of the income you receive is tax-free, which effectively increases your yield. If you fund your annuity with appreciated stock, there is capital gains tax due on a portion of the stock's value but the gain is smaller than it would be if you sold the stock and it can be spread over your life expectancy instead of all being reported in a single year.

If you'd like more information, please call us at 212-769-5119. There is no cost or obligation to you.

R. Mickens/AMNH

ONE-LIFE CHARITABLE GIFT ANNUITY RATES	
AGE	RATE
65	6.0%
70	6.5%
75	7.1%
80	8.0%
85	9.5%
90+	11.3%

Two-life rates are also available.

Public Programs

These programs are available to the general public. Call 212-769-5200 for information and tickets.

LECTURES

Book signings follow each lecture.

An Evening with Steven Pinker

Thursday, October 4 EL100407
6:30 p.m.
Kaufmann Theater
$15 ($13.50 Members)

Steven Pinker, Harvard University, examines how language structures our thoughts, emotions, and relationships.

Steven Pinker | Rebecca Goldstein

An Evening with Oliver Sacks

Thursday, October 25 EL102507
7:00 p.m.
LeFrak Theater
$15 ($13.50 Members)

Neurologist Oliver Sacks explores the complexities of our human response to music and its powerful ability to move us both physically and emotionally.

Terra: Our 100-Million-Year-Old Ecosystem and the Threats That Now Put It at Risk

Wednesday, November 28 EL112807
6:30 p.m.
Kaufmann Theater
$15 ($13.50 Members)

AMNH's Michael Novacek discusses how Earth's history can help us protect its future.

Water: H_2O = Life

Saturday, November 3

Engaging discussions and presentations will celebrate the opening of *Water*, our spectacular and timely new exhibition. Visit www.amnh.org/waterprogram for details.

Margaret Mead Film & Video Festival

Friday–Sunday, November 9–11

The Mead Festival celebrates its 31st anniversary with the best of international documentary films, including screenings, discussions, and panels. For complete listings, visit the Festival Web site, www.amnh.org/mead.

FAMILY PROGRAMS

Flint-knapping Demonstration

Saturday, November 17
12:30–1:30 p.m.
Grand Gallery
Free with Museum admission

Anthropologist John Shea, Stony Brook University, demonstrates the ancient art of flint-knapping, a process for making stone tools that has been practiced for over four million years.

Dr. Nebula's Laboratory: Life with Lucy

Saturday, November 17 RC111707
2:00–3:00 p.m.
Kaufmann Theater
$8 children; $10 adults

What would it be like to live, work and play with Lucy, a human ancestor more than three million years old? Dr. Nebula's apprentice, Scooter, travels back in time to meet Lucy and her relatives.

This program is made possible, in part, by an anonymous donor.

GLOBAL WEEKENDS

Courtesy of The Korea Society

The Sound of Ecstasy and Nectar of Enlightenment

Friday, November 2 EP110207
7:00 p.m.
Kaufmann Theater
$20 ($16 Members)

The Young San Preservation Group from Korea performs Buddhist ritual song and dance.

This program is part of a national tour organized by The Korea Society as part of its 50th anniversary celebration.

City That Drinks the Mountain Sky

Sunday, November 18
2:00 p.m.
Kaufmann Theater
Free with Museum admission

This charming puppet theater performance tells the epic story of New York City's water supply.

This performance is made possible by the New York City Department of Environmental Protection and the Catskill Watershed Corporation in recognition of the tenth anniversary of the New York City Watershed Memorandum of Agreement.

Global Weekends are made possible, in part, by The Coca-Cola Company, the City of New York, the New York City Council, and the New York City Department of Cultural Affairs. Additional support has been provided by the May and Samuel Rudin Family Foundation, Inc., the Tolan Family, and the family of Frederick H. Leonhardt.

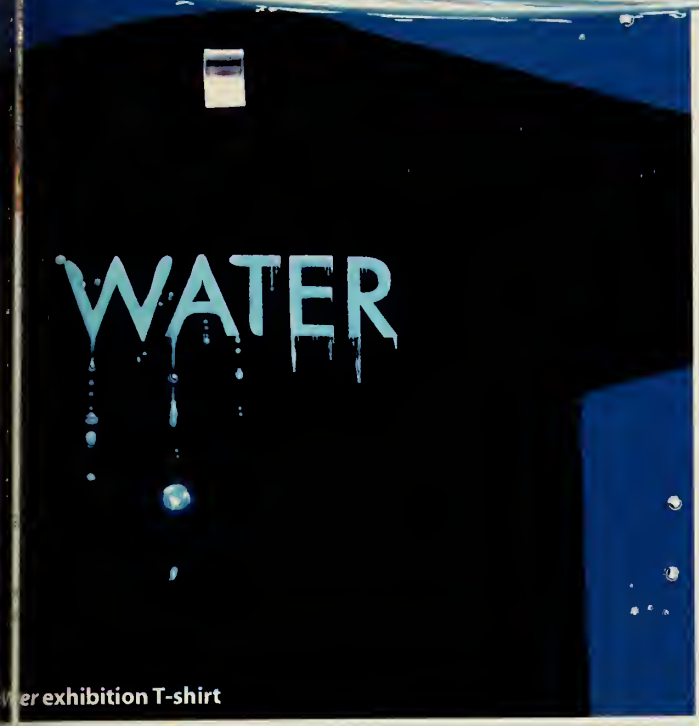
Patrick Wadden

Public programs are made possible, in part, by the Rita and Frits Markus Fund for Public Understanding of Science.

AMERICAN MUSEUM OF NATURAL HISTORY

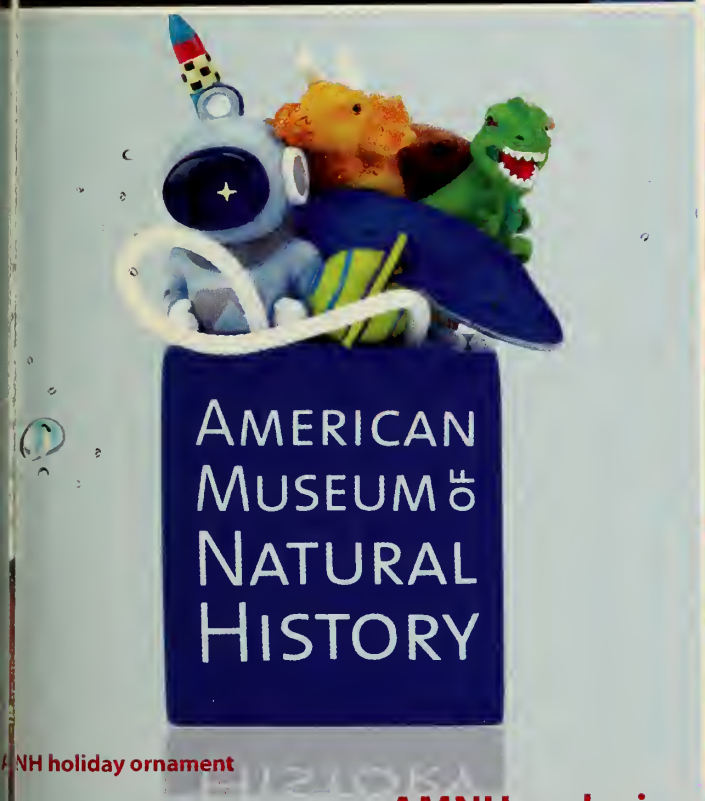
MUSEUM SHOP

a gifted idea.



er exhibition T-shirt

Polar bear snow globe



NH holiday ornament

Water exhibition cap

AMNH exclusives are great to give—

and to get! Hats and T-shirts celebrating the groundbreaking new exhibition *Water: H_2O±Life*, our collections-inspired holiday ornament, and the polar bear snow globe are just the tip of the iceberg!

To place orders, call our Personal Shopper at 1-800-671-7035 or shop at

www.amnhshop.com

Rotunda.
American Museum of Natural History
Received on: 10-09-07

General Information

HOURS

Museum: Daily, 10:00 a.m.–5:45 p.m.
The Museum is closed Thanksgiving and Christmas.
Space Show: Every half hour, 10:30 a.m.–4:30 p.m.
Research Library: Tuesday–Thursday, 2:00–5:30 p.m.
Hours are subject to change.

ENTRANCES

During Museum hours, visitors may enter through the subway (lower level), Central Park West at 79th Street (second floor), and the Rose Center/81st Street entrances. The Columbus Avenue entrance is open on weekends and holidays. The 77th Street entrance is closed until further notice.

TRANSPORTATION AND PARKING

Subway: B (weekdays) or C to 81st Street;
1 to 79th Street
Bus: M7, M10, M11, or M104 to 79th Street;
M79 to Central Park West
Parking Garage: Open daily, 8:00 a.m.–11:00 p.m.; enter from West 81st Street. Members receive a discounted rate of $10 if entering after 4:00 p.m. To receive this rate, you must have your parking ticket validated at the Security Desk (first floor, Central Park West entrance). For more information, call 212-313-7278.

FOOD SERVICE

Museum Food Court: Daily,
11:00 a.m.–4:45 p.m. (*lower level*)
Café on 1: Seasonal hours, as posted (*first floor*)
Starlight Café: Saturday and Sunday,
11:00 a.m.–4:45 p.m. (*first floor*)
Café on 4: Saturday and Sunday,
11:00 a.m.–4:45 p.m. (*fourth floor*)
Hours are subject to change.

MUSEUM SHOPS

The following Museum Shops are open during regular Museum hours:
Main Shop (*first and second floors*)
Dinostore (*fourth floor*)
Planetarium Shop (*Rose Center, lower level*)
Cosmic Shop (*Rose Center, second floor*)
Mythic Creatures Shop (*fourth floor*)
Water Shop Opens November 3 (*third floor*)
Online Shop (*www.amnh.org*)

PHONE NUMBERS

Museum Information	212-769-5100
Membership Office	212-769-5606
Central Reservations	212-769-5200
AMNH Expeditions	212-769-5700
Communications	212-769-5800
Development	212-769-5151
Education	212-769-5304
Event & Conference Services	212-769-5350
Library Services	212-769-5400
Member Birthday Parties	212-769-5606
Museum Shop	800-671-7035
Natural History Magazine	646-356-6500
Patrons Circle	212-769-5153
Planetarium Information	212-769-5900
Planned Giving Office	212-769-5119
Volunteer Office	212-769-5566
Web Site	www.amnh.org

www.amnh.org

AMERICAN MUSEUM OF NATURAL HISTORY

Please

Members' Private Evening in the new exhibition

Water: H_2O = Life

Thursday, November 8, 2007, 6:00 to 8:30 p.m.

Please use the Roosevelt Rotunda entrance on Central Park West at 79th Street.

Kindly RSVP to the Membership Office at 212-769-5606.

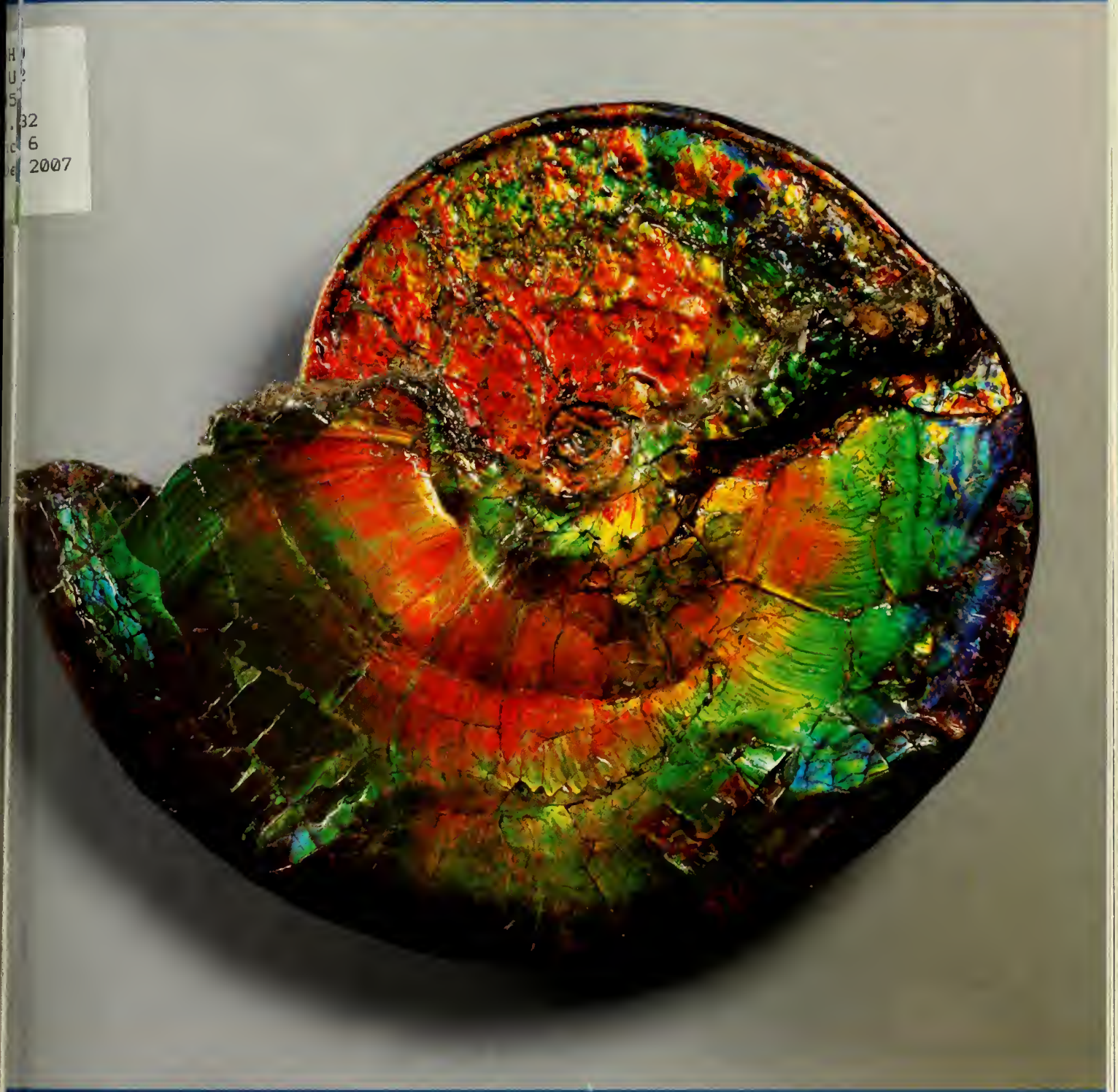
Membership Department
Central Park West at 79th Street
New York, New York 10024-5192
www.amnh.org

rotunda

VOL.32 NO. 6 DECEMBER 2007

MEMBERS' NEWSLETTER

H
U
5
.32
6
2007



AMERICAN MUSEUM OF NATURAL HISTORY

Museum Notes

CURRENTLY ON VIEW

Water: H2O = Life

Through May 26, 2008
Gallery 3
Free for Members

Live animals, hands-on exhibits, and stunning dioramas invite the whole family to explore the beauty and wonder of water and reveal one of the most pressing challenges of the 21st century: humanity's sustainable management and use of this life-giving, but finite, resource.

Water: H2O = Life *is organized by the American Museum of Natural History, New Yark (www.amnh.org), and the Science Museum of Minnesota, St. Paul (www.smm.org), in collaboration with Great Lakes Science Center, Cleveland; The Field Museum, Chicago; Instituto Sangari, São Paulo, Brazil; National Museum of Australia, Canberra; Royal Ontario Museum, Toronto, Canada; San Diego Natural History Museum; and Singapore Science Centre with PUB Singapore.*

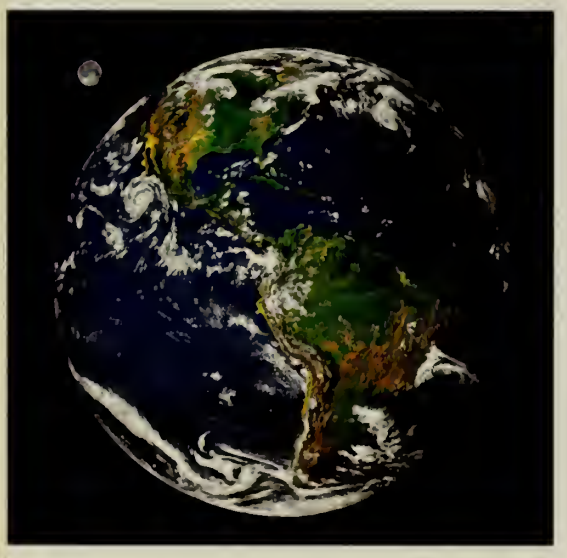
The American Museum of Natural History gratefully acknowledges the **Tamarind Foundation** *for its leadership suppart af* Water: H2O = Life, *and the* **Johns Hopkins Center for a Livable Future** *for its assistance.*

Exclusive corporate sponsor for Water: H2O = Life *is* **JP Morgan.**

Water: H2O = Life *is supported by a generous grant fram the* **National Science Foundation.**

The support af the National Oceanic and Atmospheric Administration is appreciated.

The Museum extends its gratitude to the Panta Rhea Faundation, Park Foundation, and Wege Foundation for their support of the exhibition's educational programming and materials.



Actual images af the Earth from space are projected an a six-faat-diameter globe. | Courtesy of the Science Museum af Minnesota

A clipper butterfly (Parthenos sylvia) | H. Davies/AMNH

The Butterfly Conservatory

Through May 26, 2008
Whitney Memorial Hall of Oceanic Birds
Tickets are $11 for Members and $7 for Members' children.

The butterflies are back for their tenth year, with up to 500 live, free-flying tropical butterflies. Visitors mingle with the butterflies and learn about the butterfly life cycle, defense mechanisms, evolution, and conservation.

Mythic Creatures: Dragons, Unicorns, and Mermaids

Through January 6, 2008
Gallery 4
Free for Members

Mythic Creatures traces the cultural and natural history roots of some of the world's most enduring legendary beings of land, sea, and air.

Mythic Creatures: Dragons, Unicorns, and Mermaids *is arganized by the American Museum of Natural History, New York (www.amnh.org), in collaboration with The Field Museum, Chicaga; Canadian Museum af Civilizatian, Gatineau; Australian Natianal Maritime Museum, Sydney; and Fernbank Museum of Natural Histary, Atlanta.*

Mythic Creatures *is praudly supported by* **MetLife Foundatlon.**

Vital Variety

Ongoing
IMAX Gallery

Beautiful close-up photographs highlight the importance of the immense diversity of invertebrates and their critical role in the survival of humankind.

Undersea Oasis: Coral Reef Communities

Through January 13, 2008
Akeley Gallery

Brilliant color photographs by Idell Conaway capture the dazzling invertebrate life that flourishes on coral reefs.

Beyond

Through April 6, 2008
IMAX Corridor

Michael Benson takes visitors on a journey through our solar system with some of the most stunning images captured by unmanned space probes.

The presentation af both Undersea Oasis *and* Beyand *at the American Museum af Natural History is made passible by the generasity of the Arthur Rass Faundation.*

The Unknown Audubons: Mammals of North America

Through August 2008
Audubon Gallery

Although best known for his bird paintings, John James Audubon's last great work was these gorgeously detailed depictions of North American mammals.

Major funding for The Unknown Audubons: Mammals of North America *has been provided by the Lila Wallace-Reader's Digest Endowment Fund.*

SLEEPOVER PROGRAM

A Night at the Museum

Friday, February 8 VN020808
Limited space is available.
Call 212-769-5200, Monday–Friday, 9:00 a.m.–5:00 p.m.
$99 per person for Members

As the doors close and the lights dim, adventurers head out on flashlight tours to see amazing animals past and present, explore Earth, and journey to the edges of the universe before bedding down surrounded by Museum icons.

HAYDEN PLANETARIUM SHOWS

Cosmic Collisions

Journey into deep space to explore cosmic collisions, hypersonic impacts that drive the dynamic formation of our universe. Narrated by Robert Redford.

Cosmic Collisions *was developed by the American Museum of Natural History, New York (www.amnh.org), in collaboration with the Denver Museum of Nature & Science; GOTO, Inc., Tokyo, Japan; and the Shanghai Science and Technology Museum.*

Made possible through the generous support of CIT.

Cosmic Collisions *was created by the American Museum of Natural History with the major support and partnership of the National Aeronautics and Space Administration, Science Mission Directorate, Heliophysics Division.*

COVER: *This dazzling fossil ammonite was recently installed in the Museum's Grand Gallery. See story on page 8.* | C. Chesek/AMNH

SAVE A TREE
The current issue of *Rotunda* is now available online! Download it at www.amnh.org. If you'd like to stop receiving paper copies, please email members@amnh.org.

Watercolor of North American porcupine, John James Audubon, 1842 | Photo by D. Finnin/AMNH

Field Trip to the Moon

Wednesdays, 10:30 a.m.

Guided by a live presenter, children and adults can see a sunrise in space, orbit and land on the Moon, and discuss what the future might hold for Moon exploration.

IMAX MOVIES

Samuel J. and Ethel LeFrak Theater
For showtimes, visit www.amnh.org or call 212-769-5100.

Dinosaurs Alive

Computer-generated images and film footage of past and present AMNH paleontologists bring to life the mystifying creatures whose existence and extinction have captivated the human imagination since their fossils were first unearthed.

In Cosmic Collisions, *two galaxies approach one another.* | AMNH

AND DON'T MISS...

AMNH Birthday Parties

Linda Kaye's Partymakers presents four spectacular birthday party themes: Dinosaur Discoveries, Cosmic Blast-Off, Safari Treasure Hunt, and Underwater Treasure Hunt, each with a winning combination of education and entertainment. Parties are tailored for children ages 4 and up, and are available seven days a week as a benefit to Contributor and higher-level Museum Members only. For more information and to request a date visit www.partymakers.com or call 212-288-7112.

rotunda

ISSN 0194-6110
USPS Permit #472-650
Vol. 32, No. 6, December 2007

Lewis W. Bernard, *Chairman*
Ellen V. Futter, *President*
Lynn DeBow, *Senior Vice President for Development and Membership*
Rosemary Caulk, *Director of Membership*

Rotunda is published bimonthly, except for a combined issue in July/August/September and a single issue in December, by the Membership Office of the American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192. Phone: 212-769-5606. Web address: www.amnh.org. Museum membership of $70 per year and up includes a subscription to Rotunda. ©2007 American Museum of Natural History. Periodical postage paid at New York, NY 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 USPS 472-650). Date of filing: October 1, 2007. Frequency of issue: Bimonthly except for a combined issue in July/August/September and a single issue in December. Number of issues published annually: 6. Annual subscription price: Museum membership of $70 a year or higher. 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: Membership Office, American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192. Editor: Jaime Sperling. Owner: American Museum of Natural History. Known bondholders, mortgage 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 preceding 12 months, and (B) signifies average number of copies of single issue published nearest to filing date. Total number of copies (A) 55,000 (B) 60,000. Paid circulation through Dealers and Carriers, Street Vendors, Counter Sales, and Other Non-USPS Paid Distribution (A) and (B): None. Mail subscription: (A) 49,640 (B) 51,162. Free distribution by mail: (A) 0 (B) 0. Free distribution outside of mail: (A) 3,600 (B) 4,900. Total distribution: (A) 53,240 (B) 56,062. Copies not distributed: (A) 1,760 (B) 3,938. Return from news agents: None. Percent Paid and or Requested Circulation: 93%. I certify that the statements made by me above are correct and complete. (signed) Rosemary Caulk

Printed by Brown Printing, E. Greenville, Pennsylvania.

Science Bulletins Go Global

"Today people expect information to be current, and they bring that expectation to a museum," says Vivian Trakinski, Director of the Science Bulletins program at the American Museum of Natural History. A related Museum imperative, brought to the fore by the renovation of a series of permanent exhibition halls, is to present science as a dynamic, ongoing endeavor. The award-winning Science Bulletins fulfill both sets of expectations with dazzling high-definition video, mesmerizing time-lapse visualization, and good old storytelling.

Bio Bulletin: Our Oceans, Ourselves | AMNH, photo by Anthony Lenzo, Air Sea Land Productions

By pairing the latest scientific research with visualizations based on satellite data, Science Bulletins show how scientists "do" science today. "The Bulletins are a direct fit with the Museum's educational mission, which is to interpret and communicate scientific understanding of the natural world. The program is powerful because it really lets the science speak," comments Ro Kinzler, Senior Director of the National Center for Science Literacy, Education, and Technology, which extends the resources of the Museum beyond its walls.

Taking visitors from the inner Earth to the edge of the universe

The Science Bulletins program was launched by the Department of Education when the Hall of Biodiversity opened in 1997. Now four in number (Earth Bulletin, Bio Bulletin, Astro Bulletin, and the new Human Bulletin), each is shown in its respective hall on large plasma screens and touch-screen kiosks. Each Bulletin presents cutting-edge science in three formats: documentary feature stories, data visualizations, and biweekly news updates of science-related events and discoveries, all of which loop nonstop.

For the updates, a scientist and a writer-producer review a selection of scientific journals and other primary sources for relevant stories that can be effectively communicated within the format's 90- to 120-second time frame. Recent updates document new hominid fossil finds in Kenya; the discovery of a billion-light-year-wide bubble in the expanding universe; and scars from summer wildfires outside Athens, Greece. Feature stories, which consist of five- to seven-minute documentary video segments, are selected through an editorial process that begins when the relevant Museum science department proposes topics. These scientists then confer with the production group and present the top contenders to an editorial board comprising curators and the provost of science.

Showing scientists at work in real time

To make the grade as a feature story, the science must be important, the public must be interested, and the logistics of video production have to be manageable. "These stories are an opportunity to show science in action, so we look for ones that are unfolding," Trakinski explains. "For instance, for a week in July we flew around Alaska with eight or nine Earth scientists studying how tectonic activity and climate are interacting to create the St. Elias mountain range." The team has been to the South Pole to cover how astrophysicists study the Cosmic Microwave Background, to the Greenland ice sheet for a story on rising sea levels, and to plenty of warmer places as well.

Astro Bulletin: Sloan Digital Sky Survey: Mapping the Universe | J. Lelchuk/AMNH

Translating esoteric data into a shared visual language

The most significant change across the Bulletins has been the growing integration and visualization of satellite data—also a trend in science at large. The Data Viz component was introduced in 2002 with a two-and-a-half-minute visualization of changes to the ozone layer, which have been monitored continuously since 1979. Biogeographer Dr. Ned Gardiner points out, "a major advantage of these global data sets is the ability to visualize and depict the whole Earth." Access to multiple views of the planet over time has revolutionized the way Earth and biodiversity scientists monitor our planet. For example, routine monitoring of global ocean temperature helps meteorologists predict future effects of El Niño and other climate cycles.

Human Bulletin: Avian Flu: Preparing for the Next Pandemic | J. Lelchuk/AMNH

Visualizations like this Earth Viz convey both the dynamic nature of scientific research and of Earth itself.

As the team's Senior Geographic and Ecosystems Specialist, Gardiner works directly with other scientists to interpret the satellite and remote sensing data, then collaborates with the team's animator to visualize it accurately and meaningfully. "Satellite data provide something that ecologists, biologists, and conservationists cannot replicate any other way: an image of the way humans are transforming ecosystems in every corner of the planet," he says. "That is the dominant force of change for life on Earth, and people need to see it."

Different disciplines call for different approaches

Astrophysicists, on the other hand, have always dealt in images rather than collecting samples or conducting experiments. Evidence consists of data about energy emitted by objects in space, which is then converted to high-resolution imagery. As a high-definition science program, AstroBulletins can present these images in rich detail.

When the Spitzer Hall of Human Origins was renovated, the team knew that remote sensing data would play a smaller role in depicting current research, "though we do have some data woven into the storytelling, because some scientists are using it to find fossils or make maps," Trakinski points out. Since Science Bulletins can complement as well as augment the contents of a hall, the Museum decided that the brand new Human Bulletin should focus on health. The first feature is on avian flu and the second discusses stem cell research. A story about the evolution and origin of our species based on the discovery of fossils in a South African cave that are evidence of early human cognition is also in the pipeline.

Coming soon to a country not near you

The Science Bulletins program extends well beyond its four screens at the Museum. Subscriptions to single or multiple Bulletins and to some or all of their components are available as an automatically updated stream of high-definition content delivered online. The subscriber base has now grown to 41 informal science centers, including universities and colleges. A recent email from Bruce Marsh, a professor of Earth and Planetary Science at John Hopkins University, described how the Bulletins have become part of the entire department's daily life. "We each drift by for updates, almost like turning on NPR for breakfast . . . [or] bring some chairs, get a coffee or a beer, turn up the sound, and settle in for a good session. We couldn't live without it!"

Over the past four years, with support from NASA as well as from NOAA, the Museum's Business Development department has worked hard to expand the reach of the Science Bulletins: the Bulletins can now be viewed in Australia, Canada, and Malaysia, and demos are available in Mandarin and Spanish. The Museum is now investigating ways for them to become increasingly independent. "This year we're opening them up to collaboration, the way we've done with our special exhibitions," explains Jan English, Assistant Director of Traveling Programs. Collaborators will have a role in shaping the material for their audiences, but the Museum will manage the process in New York.

Packed with essays, glossaries, and educational resources, the new Science Bulletins Web site (www.amnh.org/sciencebulletins/) features the program's high-quality videos, which can be downloaded for free. As broadband access grows, these current science stories will reach not just students and visitors to informal science centers, but anyone with an internet connection.

Support has been provided by the National Aeronautics and Space Administration (NASA) and the National Oceanic and Atmospheric Administration (NOAA).

The Museum is now seeking new partners, in addition to the founding support provided by NASA, to continue the expansion of Science Bulletins. Sponsorship of this special program offers a unique opportunity to underscore a donor or company's major commitment to and leadership in science and technology and science education for the public. The Museum's Development Office would be happy to work with a potential donor or sponsor to create prominent acknowledgment in the credit loop of each of the four Science Bulletins at AMNH and all subscriber venues, as well as credit on the Science Bulletins Web site.

Science Bulletins offers an incomparable venue for translating and disseminating current scientific information to a broad public audience. Through its combination of spectacular imagery and cutting-edge content, the programs engage visitors across the country and around the world in the nature and scope of ongoing scientific discovery of the highest caliber. Please call Caralynn Sandorf in the Development Office at 212-769-5220 if you are interested in learning more about this special donor/sponsorship opportunity.

Earth Bulletin: Yellowstone: Monitoring the Fire Below | AMNH, photo by David Rasmussen, Northern Mountain Films

Members' Programs

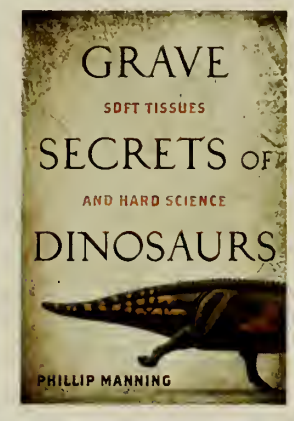
Programs are available to Members only, unless a non-Member's price is given.

LECTURES

Grave Secrets of Dinosaurs: Soft Tissues and Hard Science

Tuesday, January 29 ML012908
7:00 p.m.
Kaufmann Theater
$15 ($13.50 Members)

Join Philip Manning, Professor of Paleontology at the University of Manchester, England, as he discusses his fascinating book *Grave Secrets of Dinosaurs: Soft Tissues and Hard Science*. Hear about the latest research on dinosaur trackways, biomechanics, and locomotion being done by Manning and his team of paleontologists.

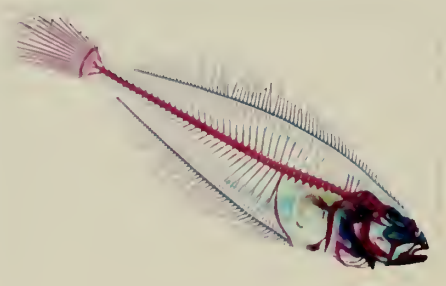


BEHIND-THE-SCENES TOUR

Behind the Scenes in Ichthyology

Thursday, January 17 MB011707A,B,C
6:30, 7:00, 7:30 p.m.
$30

The Museum's Department of Ichthyology, a world-renowned research center, houses a spectacularly diverse worldwide collection of fishes—from the ancient coelacanth to the tropical marine life of Australia's Great Barrier Reef. It includes specimens preserved in alcohol, cleared-and-stained specimens, one of the world's largest dry skeleton collections, and a larval fish collection. Go behind the scenes with Postdoctoral Fellows Robert Schelly and Prosanta Chakrabarty and Scientific Assistant Scott Holtz to learn about current research and see examples of specimens from the collection.



Lyopsetta exilis | © 2000 Wm. Leo Smith/AMNH

Olympic National Forest diorama, Hall of North American Forests | D. Finnin/AMNH

HALL TOURS

Diorama Discoveries

The Museum's famous dioramas depict places all over the world and their stunning background paintings represent actual geological formations. Join geologist Sidney Horenstein for three different hall tours exploring the diversity of North America's topography, our beautiful national parks, and Africa's dramatic landscapes. Learn how teams of AMNH scientists and artists conceived and created the dioramas.

North American Landscapes
Thursday, January 10 MH011008
6:00–7:30 p.m.
$30

National Parks
Wednesday, January 23 MH012308
6:00–7:30 p.m.
$30

African Landscapes
Thursday, February 21 MH022108
6:00–7:30 p.m.
$30

FAMILY & CHILDREN'S PROGRAMS

Dinosaur Discoveries

Sunday, January 13
MC011308A *10:30 a.m.–12:00 noon*
(Ages 5–7)
MC011308B *1:30–3:00 p.m.*
(Ages 8 and up)
Rose Center Classroom
$28

Learn why scientists are looking to dinosaurs' closest relatives, modern birds, to better understand the past. Join educator Arthur Horan and tour the fossil halls to examine maniraptors, a group of dinosaurs that includes living birds on its evolutionary branch. Then, journey to the Hall of Birds of the World and sketch the anatomical features that connect and separate modern birds and dinosaurs. Using your sketches and observations, create a collage or model back in the classroom.

Deinonychus | AMNH Photo Studio

NASA-JPL

A Journey through Our Solar System

Sunday, January 27
MC012708A *10:30 a.m.–12:00 noon*
MC012708B *1:30–3:00 p.m.*
(Ages 9 and up; limited to 25)
Rose Center Classroom
$28

Have you ever gazed up at the evening sky and wondered about the stars winking above you? Educator Stephen Brodbar will explain how to distinguish stars from planets, identify the brightest stars by name, and locate a few of the most prominent groupings of stars in the sky with an introduction to the use of a star map and telescope.

PREVIOUSLY LISTED

Limited space may still be available for these programs.

Magnificent Mammals and their Extinct Relatives

Sunday, December 2
MC120207A *10:30 a.m.–12:00 noon*
(Ages 5–7)
MC120207B *1:30–3:00 p.m.*
(Ages 8 and up)
Rose Center Classroom
$28

Mammals evolved at nearly the same time as the first dinosaurs, and the roots of the mammalian line reach back almost 300 million years. With educator Amy O'Donnell, sketch the Museum's amazing dioramas, fossil mounts, and early natural history paintings. Collect clues to learn the differences and similarities between modern mammals and their extinct relatives, and discover how scientists classify mammals. Then, create a pop-up book of your favorite critter and its habitat.

Wolf Empire

Tuesday, December 11 ML121107
7:00 p.m.
Kaufmann Theater
$13.50 ($15 Non-Members)

Having spent more than three decades educating people about wolves while living with, observing, and photographing them, wildlife photographer and environmentalist Scott Ian Barry discusses his book *Wolf Empire: An Intimate Portrait of a Species*. Discover why the preservation of these incredible mammals is essential, and what we can do to help protect their future. Barry helps us understand the wide array of social behavior, intelligence, and personality of wolves, a species as diverse as humans.

D. Finnin/AMNH

MEMBERS' FAMILY HOLIDAY PARTY

Friday, December 9 MP120907
1:00–4:00 p.m.

Join us in the Milstein Hall of Ocean Life for holiday crafts and live entertainment. Children will sing along with award-winning trio David Grover and the Big Bear Band as they perform holiday songs.

The event is free and open to Family and higher-level Members only. Members must register in advance by calling 212-769-5200.

Painting by Charles Knight | Photo by C. Chesek/AMNH

Winter Dance, February 2008

The Winter Dance is a glamorous black-tie party, with a Museum-inspired theme each year, that takes place in several of the Museum's spectacular halls. Guests begin their evening with an intimate dinner, followed by dessert and dancing. A silent auction of luxury items and opportunities rounds out the evening.

The Chairs of the Winter Dance for 2008 include Fabiola Beracasa, Claire Bernard, Amanda Hearst, Tinsley Mortimer, and Arden Wohl.

The Winter Dance has been an essential component of the Museum's fundraising efforts for almost four decades. Dating back to the 1970s, the Winter Dance is the longest-running junior benefit in New York City. It continues to provide a unique opportunity to gather philanthropic individuals ages 39 and younger in a social setting while also raising money for the Museum.

Proceeds from this event support the Museum's scientific and educational programming.

Dance the night away under the blue whale in the Milstein Hall of Ocean Life. | D. Finnin/AMNH

For more information, please contact Chelsea Corey at ccorey@amnh.org.

Iridescent Ammonite on Display

Anyone who thinks fossils are dull should be dazzled by the rainbow hues of a new specimen on display in the Museum's 77th Street Grand Gallery.

The two-foot-diameter fossil, known as an ammonite, is a large and rare example of a marine animal that was once one of the most common invertebrates in the oceans. Ammonites went extinct around 65 million years ago—the same time as most dinosaurs.

The fossil's spectacular color is the result of nacre, the substance that made up the animal's shell, becoming fossilized and turning into a mineral known as aragonite. The colors are produced by light reflecting off layers within the fossilized shell and interacting, much the way oil on water produces a rainbow sheen. Ammonites that display this characteristic are known as ammolites and are found only in one particular geologic formation in western Canada. Ammolite is one of only three gemstones produced by living organisms—the others being amber and pearls.

Museum visitors take in the brilliant hues of the recently acquired ammonite. | D. Finnin/AMNH

Scientists greatly value ammonites as well, whether colorful or not. Scientists use them to determine the relative age of the rocks in which they are found, because different species of ammonites lived during different time periods. Their presence also indicates the location of ancient seas, such as the Western Interior Seaway in the middle of North America, where this one lived approximately 80 million years ago.

Ammonites were able to swim thanks to the multi-chambered construction of their shell, which provided variable buoyancy, and probably moved through the water using jet propulsion. Ammonites were cephalopods and related to modern-day squid, octopus, cuttlefish, and, most obviously, the chambered nautilus.

The ammonite on display was donated to the Museum by Korite International and Canada Fossils Ltd.

Give a Gift for All Seasons: AMNH Membership

Your friends and relatives can enjoy all the benefits of Membership, including complimentary Museum general admission and special exhibition tickets, a year's subscription to *Natural History* magazine and to *Rotunda*, invitations to Members' previews, and discounts in Museum Shops and restaurants. Choose the Membership level and we'll do the rest.

Special offer expires December 31, 2007. Not valid for Members renewing their own Memberships.

1. Please send a one-year Membership at the category indicated to the person below:

❑ Individual $70 ❑ Dual $90 ❑ Family $115 ❑ Contributor $195

Recipient's Name _____

Street _____

City _____ State _____ Zip Code _____

2. Please send a one-year Membership at the category indicated to the person below:

❑ Individual $70 ❑ Dual $90 ❑ Family $115 ❑ Contributor $195

Recipient's Name _____

Street _____

City _____ State _____ Zip Code _____

Your Name _____

Street _____ City _____ State _____ Zip Code _____

❑ Enclosed is my check for $ _____ OR

❑ Please charge my: ❑ Visa ❑ MasterCard ❑ American Express

Card Number _____ Exp. Date _____ Signature _____

Private Parties in Café on One

The American Museum of Natural History is pleased to offer an exclusive new benefit to our Members at the Contributor level or higher. You now have the opportunity to host private social events in our newly opened Café on One.

Located in the corner turret of the beautifully renovated and majestic Grand Gallery on the first floor, just off the 77th Street entrance, Café on One features a floor of intricately designed terra-cotta tile, ornamental Roman-style sconces adorning the walls, and a contemporary chandelier centerpiece.

With 1,900 square feet, Café on One can accommodate up to 65 guests and is the perfect space for your next bridal shower or anniversary celebration, or any other occasion you would like to make special. The Museum's in-house caterer, Restaurant Associates, will work with you to develop and customize distinctive menus for your gathering. Their creative culinary staff coupled with the unique location of the American Museum of Natural History will make your affair unforgettable.

Café on One is available during the Museum's public hours. For more information, please contact Event and Conference Services at 212-769-5350.

The sunny, spacious Café on One is now available for private functions. | D. Finnin/AMNH

Public Programs

These programs are available to the general public. Call 212-769-5200 for information and tickets.

LECTURES

Neil Shubin: A Journey into the 3.5 Billion-Year History of the Human Body

Wednesday, January 23 EL012308
6:30 p.m.
Linder Theater
$15 ($13.50 Members)

Neil Shubin, University of Chicago, explores how our distant past is evidenced in our skeletons, our behavior, and deep within our DNA. A book signing follows.

Global Kitchen: Watering Our Breadbasket

Wednesday, January 16 EL011608
6:30 p.m.
Linder Theater
$45

Discover why sustainable agriculture also protects our drinking water with Fred Kirschenmann, Iowa State University, and Peter Hoffman, owner and chef of Savoy. Tastings are included.

FAMILY PROGRAMS

Loren Coleman: Adventures in Cryptozoology

Saturday, December 1
1:00 p.m.
Kaufmann Theater
Free with Museum admission

Discover the world of "hidden" creatures, such as Bigfoot, with Loren Coleman, one of the world's leading cryptozoologists.

Kerr Dam, Montana

ADULT PROGRAMS

Understanding Our DNA

Three Thursdays,
January 31–February 14 EK013108
6:30 p.m.
Sackler Educational Laboratory
$125

In this hands-on workshop, participants sequence their own DNA "fingerprints" and discuss their implications.

Lunchtime Winter Bird Walks

Three Wednesdays,
January 30– February 13 EK013008
12:00 noon–1:30 pm.
$75
Collections Manager Paul Sweet, Department of Ornithology, guides you through three Central Park habitats to observe the varied bird species of New York City.

WATER SATURDAYS

11:00 a.m.–12:30 p.m.
(Ages 4–6, each child with one adult)
1:30–3:00 pm. (Ages 7–9)
$30 each; $100 for all four

Take all four sessions and earn a certificate.

Water on Mars?

Saturday, January 12 EC011208A, B
Learn how we have come to know that there was water on Mars and the implications of that.

Hydrology Workshop

Saturday, January 19 EC011908A, B
Use basic engineering principles to design and create dams and waterways to solve the ancient problem of accessing fresh water.

The Properties of Water

Saturday, January 26 EC012608A, B
Water is unique: it is the only substance able to exist in three phases—gas, liquid, solid—in the normal range of Earth's temperatures. Learn why that is significant.

Groundwater and the Water Cycle

Saturday, February 2 EC020208A, B
Construct your own terrarium to learn about ground water, where it comes from, and why it is so important.

The Ron K. Brown/Evidence Dance Company performs at Kwanzaa. | Ron K. Brown/Evidence

GLOBAL WEEKENDS

The City Celebrates Kwanzaa

Saturday, December 29
12:00 noon–5:00 p.m.
Milstein Hall of Ocean Life
***Free** with Museum admission*

Celebrate Kwanzaa's seven principles, the Nguzo Saba, with an afternoon of song, dance, and spoken word. Enjoy a Kwanzaa marketplace and culinary delights with the entire family.

This event is coproduced by Community Works and the New Heritage Theatre Group under the artistic direction of Sistah Azizo.

Living in America: Rivers of Life

Three Saturdays, January 12–26
12:00 noon–5:00 p.m.
Kaufmann and Linder Theaters
Other locations, as posted
***Free** with Museum admission*

Consider the meanings, uses, and values placed on water, a precious resource, with performances, discussions, films, and workshops for adults and families.

Global Weekends are made possible, in part, by The Coca-Cola Company, the City of New York, the New York City Council, and the New York City Department of Cultural Affairs. Additional support has been provided by the May and Samuel Rudin Family Foundation, Inc., the Tolan Family, and the family of Frederick H. Leonhardt.

Public programs are made possible, in part, by the Rita and Frits Markus Fund for Public Understanding of Science.

AMERICAN MUSEUM of NATURAL HISTORY

MUSEUM SHOP

a gifted idea.

THE GIFT OF KNOWLEDGE

THIS HOLIDAY, TURN TO THE MUSEUM SHOP FOR PRESENTS THAT MAKE LEARNING FUN!

Bonus! FREE SHIPPING on all online orders $40 and up. **Use code Rotdeco7.**

For holiday delivery, please place orders by December 14.

To place orders, call our Personal Shopper at 1-800-671-7035 or shop at

www.amnhshop.com

Rotunda.
American Museum of Natural History
Received on: 11-26-07

General Information

HOURS
Museum: Daily, 10:00 a.m.–5:45 p.m.
The Museum is closed Thanksgiving and Christmas.
Space Show: Every half hour, 10:30 a.m.–4:30 p.m.
Research Library: Tuesday–Thursday, 2:00–5:30 p.m.
Hours are subject to change.

ENTRANCES
During Museum hours, visitors may enter through the subway (lower level), Central Park West at 79th Street (second floor), and the Rose Center/81st Street entrances. The Columbus Avenue entrance is open on weekends and holidays. The 77th Street entrance is closed until further notice.

TRANSPORTATION AND PARKING
Subway: B (weekdays) or C to 81st Street;
1 to 79th Street
Bus: M7, M10, M11, or M104 to 79th Street;
M79 to Central Park West
Parking Garage: Open daily, 8:00 a.m.–11:00 p.m.; enter from West 81st Street. Members receive a discounted rate of $10 if entering after 4:00 p.m. To receive this rate, you must have your parking ticket validated at the Security Desk (first floor, Central Park West entrance). For more information, call 212-313-7278.

FOOD SERVICE
Museum Food Court: Daily,
11:00 a.m.–4:45 p.m. (*lower level*)
Café on 1: Daily, 11:00 a.m.–4:45 p.m. (*first floor*)
Starlight Café: Saturday and Sunday,
11:00 a.m.–4:45 p.m. (*first floor*)
Café on 4: Saturday and Sunday,
11:00 a.m.–4:45 p.m. (*fourth floor*)
Hours are subject to change.

MUSEUM SHOPS
The following Museum Shops are open during regular Museum hours:
Main Shop (*first and second floors*)
Dinostore (*fourth floor*)
Planetarium Shop (*Rose Center, lower level*)
Cosmic Shop (*Rose Center, second floor*)
Mythic Creatures Shop Closes January 6 (*fourth floor*)
Water Shop (*third floor*)
Online Shop (*www.amnh.org*)

PHONE NUMBERS

Museum Information	212-769-5100
Membership Office	212-769-5606
Central Reservations	212-769-5200
AMNH Expeditions	212-769-5700
Communications	212-769-5800
Development	212-769-5151
Education	212-769-5304
Event & Conference Services	212-769-5350
Library Services	212-769-5400
Member Birthday Parties	212-769-5606
Museum Shop	800-671-7035
Natural History Magazine	646-356-6500
Patrons Circle	212-769-5153
Planetarium Information	212-769-5900
Planned Giving Office	212-769-5119
Volunteer Office	212-769-5566
Web Site	www.amnh.org

www.amnh.org

AMERICAN MUSEUM OF NATURAL HISTORY

The America

Walk o

Exercise your body,

Educate your mind,

Explore the world,

Escape the cold,

Power-walk to the farthest corners of the Earth...

with an intrepid band of early-morning movers and shakers. Join this Wednesday-morning fitness walk through the Museum for Members at the Contributor level ($195) and above.

13 Wednesdays, January 9 through April 2, 2008, 8:00–9:30 a.m.

You are invited to bring a guest to the first session kick-off event. Subsequent sessions are for registered Members only.

Call Cynthia Franks at 212-313-7607 to register. Space is limited.

Membership Department
Central Park West at 79th Street
New York, New York 10024-5192
www.amnh.org

rotunda

OL. 31 NO. 1 JANUARY/FEBRUARY 2006

MEMBERS' NEWSLETTER

0
2
31
1
-Feb
6

AMERICAN MUSEUM OF NATURAL HISTORY

Museum Notes

CURRENTLY ON VIEW

Darwin

Through May 29
Gallery 3

This magnificent exhibition offers visitors a comprehensive, engaging exploration of the life and times of Charles Darwin, whose discoveries, observations, and subsequent insights in the 19th century forever changed the perception of the origin and nature of our own species and launched modern biological science. The exhibition features live animals from the Galápagos Islands, actual fossil specimens collected by Darwin, and an original notebook from his historic voyage aboard the HMS *Beagle*.

The American Museum of Natural History gratefully acknowledges ***The Howard Phipps Foundation*** *for its leadership support. Significant support for* Darwin *has also been provided by Chris and Sharon Davis, Bill and Leslie Miller, the Austin Hearst Foundation, Jack and Susan Rudin, and Rosalind P. Walter.*

Additional funding provided by the Carnegie Corporation of New York and Dr. Linda K. Jacobs.

Darwin *is organized by the American Museum of Natural History, New York (www.amnh.org), in collaboration with the Museum of Science, Boston; The Field Museum, Chicago; the Royal Ontario Museum, Toronto, Canada; and the Natural History Museum, London, England.*

Galápagos land iguana | K. Frey/CBC/AMNH

Biomechanical Apatosaurus *in the exhibition* Dinosaurs | C. Chesek/AMNH

LAST CHANCE!

Dinosaurs: Ancient Fossils, New Discoveries

Through January 8
Gallery 4

Stroll back in time through a Mesozoic forest and come face to face with the creatures that lived there. This groundbreaking exhibition reveals how current thinking about dinosaur biology has changed dramatically over the past two decades and presents the most up-to-date look at how scientists are reinterpreting many of the most persistent and puzzling mysteries of dinosaurs—what they looked like, how they behaved, and ultimately, why, or even if, they became extinct.

Dinosaurs: Ancient Fossils, New Discoveries *and its accompanying education and public programs are made possible by* ***Bank of America.***

This exhibition is organized by the American Museum of Natural History, New York (www.amnh.org), in collaboration with the Houston Museum of Natural Science; California Academy of Sciences, San Francisco; The Field Museum, Chicago; and North Carolina Museum of Natural Sciences, Raleigh.

Major funding has also been provided by the Lila Wallace-Reader's Digest Endowment Fund.

Voices from South of the Clouds

Through March 12
Akeley Gallery

Selected images from the Nature Conservancy's Photovoice project are displayed in this captivating exhibition that reveals the land and the people of China's Yunnan Province. This project puts the cameras in the hands of the villagers themselves, who use photography to chronicle their culture, religion, and daily life, as well as their interaction with the local environment.

The exhibition is made possible by a generous grant from Eastman Kodak Company.

The presentation of this exhibition at the American Museum of Natural History is made possible by the generosity of the Arthur Ross Foundation.

The Butterfly Conservatory: Tropical Butterflies Alive in Winter

Extended! Now through June 23

The butterflies are back for their eighth year! Mingle with up to 500 live, free-flying tropical butterflies in an enclosed habitat that approximates their natural environment with lush vegetation and live flowering plants.

Admission is by timed entry only.

Cover: *Whirlpool galaxy (M51)* | NASA, ESA, S. Beckwith (STScI), and The Hubble Heritage Team (STScI/AURA)

Tickets are $10 for Members and $6 for Members' children.

Vital Variety

Ongoing
IMAX Gallery

Beautiful close-up photographs highlight the importance of the immense diversity of invertebrates and their critical role in the survival of humankind.

HAYDEN PLANETARIUM SHOWS

SonicVision

Fridays and Saturdays, 7:30, 8:30, and 9:30 p.m.

SonicVision is a trip out of this world and into the minds of the universe's most creative digital animators, set to a soundtrack of today's coolest music.

Now, for a limited time only, bring a friend FREE to *SonicVision*. Coupons are available at any Information Desk or at www.amnh.org.

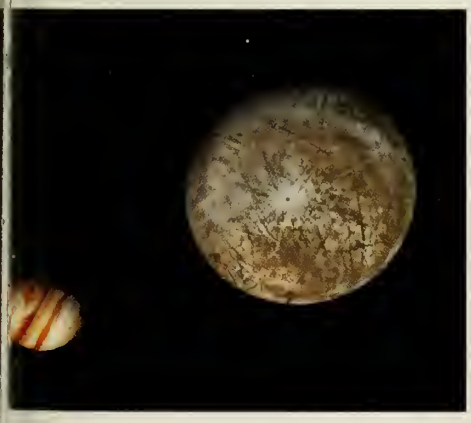
Presented in association with MTV2 and in collaboration with renowned artist Moby.

SonicVision *is made possible by generous sponsorship and technology support from Sun Microsystems, Inc.*

The Search for Life: Are We Alone?

Journey from the lightless depths of Earth's oceans to newly discovered planets on a quest for worlds that might support life.

The Search for Life: Are We Alone? *is made possible through the generous support of Swiss Re.*



Jupiter and Europa | AMNH/NASA

The Johnson-Sea-Link *submersible in* Galápagos | A Smithsonian Institution and IMAX Corporation Presentation of a Mandalay Media Arts Production

Passport to the Universe

The original Hayden Planetarium Space Show, narrated by Tom Hanks, takes a tour of the known universe.

The Space Shows were developed by the American Museum of Natural History in collaboration with the National Aeronautics and Space Administration (NASA). Written by Ann Druyan and Steve Soter. Music by Stephen Endelman.

IMAX MOVIES

Samuel J. and Ethel LeFrak Theater

Galápagos brings viewers face to face with iguanas, boobies, giant tortoises, moray eels, and more. See page 5.

For showtimes, visit www.amnh.org or call 212-769-5100.

IMAX films at the American Museum of Natural History are made possible by Con Edison.

AND DON'T MISS...

AMNH Birthday Parties

Have a prehistoric birthday with the Dinosaur Discoveries party! The birthday child and guests will travel back in time as paleontologists in search of a nest of dinosaur eggs on this fun-filled dinosaur adventure.

Linda Kaye's Partymakers also presents three other festive party themes: Underwater Treasures, Cosmic Blast-off, and Safari Adventure. Each party offers a winning combination of education and entertainment. Parties are tailored for children ages 4 and up and are available seven days a week as a benefit to Contributor and higher-level Members only. For more information and to request a date, visit www.partymakers.com or call Linda Kaye's Partymakers at 212-288-7112.

2006 ISAAC ASIMOV MEMORIAL DEBATE

Universe: One or Many?

Wednesday, March 29 HL032906
7:30 p.m.
LeFrak Theater
$12 ($14 Non-Members)

Join a panel of cosmologists and philosophers to argue and debate the possibility that our universe is just one of many that comprise the "multiverse." This notion invokes dimensions beyond our everyday experience and is drawn from the leading edge of our conception of the cosmos. The presence or absence of data in support of these ideas forms a central theme for the evening.

ROTUNDA ON THE WEB!

Beginning with this issue, *Rotunda*, the American Museum of Natural History's Members' newsletter, is now available on the Museum's Web site, at www.amnh.org/join. You will be able to download the current issue as a PDF from this page.

rotunda

ISSN 0194-6110
USPS Permit #472-650
Vol. 31, No. 1, January/February 2006

Lewis W. Bernard, *Chairman*
Ellen V. Futter, *President*
Lynn DeBow, *Senior Vice President for Development and Membership*
Rosemary Caulk, *Director of Membership*

Rotunda is published bimonthly, except for a combined issue in July/August/September and a single issue in December, by the Membership Office of the American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192. Phone: 212-769-5606. Web address: www.amnh.org. Museum membership of $55 per year and higher includes a subscription to *Rotunda*.

© 2005 American Museum of Natural History.
Periodical postage paid at New York, NY, and at additional mailing offices. Postmaster: please send address changes to *Rotunda*, Membership Office, AMNH, at the above address. Printed in the USA.

Cosmic Collisions

PEOPLE AT THE AMNH

Carter Emmart

Director of Astrovisualization, Rose Center Education

When he began as an animator at the Museum, Carter Emmart would spend nights lying on the floor of the Hayden Planetarium, gazing up at the expansive night sky surrounding him. Using the Museum's unique 3-D database, the Digital Universe, Carter navigated through space, watching Earth recede to a tiny dot. Or, as he describes it, he taught himself to fly.

Carter is currently working with the rest of the Rose Center production staff on finalizing the new Space Show, *Cosmic Collisions*. He describes his job as "envisioning what the show is going to look like and how it's going to flow logically," with the goal of bringing abstract topics to the public.

To create AMNH's dazzling Space Shows, the team collaborates with top astrophysicists to craft visuals based on the most current scientific data and simulations. Even though *Cosmic Collisions* has been in the works for a number of years, as Carter explains its premise, you can sense his excitement and anticipation. "Collisions are a driving force in the creation and evolution of planets, galaxies, and the universe."

After obtaining a degree in geophysics from the University of Colorado where he also founded a student interest group that lobbied for the exploration of Mars, Carter worked as an artist for NASA and other organizations. Still, he describes joining the Museum staff as a homecoming, since he took classes in the original Hayden during his childhood.

Photo by Alex Bawles

NEW SPACE SHOW AT THE HAYDEN PLANETARIUM

Opens in March

In March, a new Space Show of cosmic proportions is hitting the Hayden Planetarium Space Theater! Immersed in a dazzling virtual reality simulator, you'll journey into deep space—well beyond the calm face of the night sky—to explore cosmic collisions, hypersonic impacts that drive the dynamic and continuing formation of the universe.

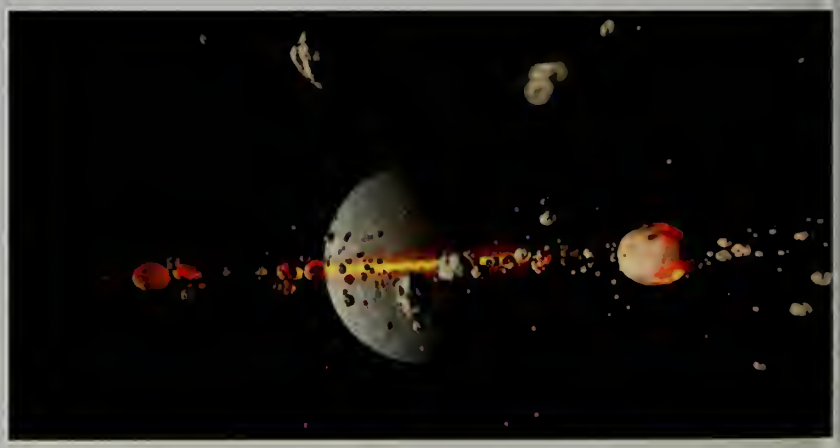
To create this new, technologically advanced Space Show, the Museum's production team drew on state-of-the-art cluster computing and leading-edge astrophysics research that precisely portrays activity in the cosmos based on the latest data collected by telescopes and spacecraft.

The result is a front-row seat to the ever-unfolding drama of the universe, where you'll witness events that take place in various parts of the spectrum, including X-ray, gamma ray, infrared, and visible light—events never before seen by the naked eye because they are too remote, took place too long ago in the past, or haven't yet occurred.

You'll witness the creation of our Moon some five billion years ago when a wandering planetoid struck Earth; the collision between the Sun's solar wind and Earth's magnetic field, which yields brilliant aurorae; the violent meeting of three stars in a dense globular cluster and the resulting emergence of only two stars; and the future collision of our Milky Way galaxy with our closest neighbor, the Andromeda spiral galaxy, a cosmic crash that will produce a new giant elliptical galaxy billions of years from now. Finally, you'll feel the ground shake beneath you as you bear witness to such high-energy events as the meteorite impact that hastened the end of the Age of Dinosaurs millions of years ago and cleared the way for mammals like us to thrive.

These awe-inspiring scenes of events past, present, and future illustrate the massive and violent collisions that occur regularly in our universe, where everything is in constant motion under the inexorable and powerful force of gravity. These cosmic collisions have created the universe we see today and will continue to alter the face of it into the unimaginable future, precipitating a radical change in our relationship with the universe, as we shift from watching it to affecting it.

Cosmic Collisions was developed by the American Museum of Natural History in collaboration with the National Aeronautics and Space Administration (NASA), under award No. NNG05GO41G.



Artist's conception of the formation of our Moon | AMNH

Galápagos

Galápagos, a captivating large-format film, opened at the American Museum of Natural History just in time to accompany the Museum's engaging new exhibition *Darwin*. The 40-minute film follows a marine biologist's first-time exploration of the islands, a seminal stop on Charles Darwin's five-year voyage of scientific exploration aboard the HMS *Beagle* more than 150 years ago. Narrated by Academy Award nominee Kenneth Branagh and featuring music by Academy Award nominee Mark Isham, *Galápagos* makes a significant contribution to the appreciation and understanding of these exotic and magnificent islands.

Fur sea lions lounge on rocks near the seashore in Galápagos | A Smithsonian Institution and IMAX Corporation Presentation of a Mandalay Media Arts Production

Galápagos follows Dr. Carole Baldwin, a marine biologist from the Smithsonian Institution's National Museum of Natural History, to the Galápagos islands—a group of 19 islands and 42 islets located on the equator 600 miles west of the Ecuadorian mainland—and into the depths of its surrounding waters. The famous volcanic archipelago is a living natural science laboratory, still surprising scientists today with its unique species and history.

On the 40-foot-tall screen of the LeFrak IMAX Theater, audiences come face to face with remarkably tame iguanas, boobies, and giant tortoises as they bask on the volcanic surface of the islands. Viewers accompany Dr. Baldwin as she rappels into a dark cave looking for fossils, then visits the crystal-clear waters surrounding the islands, swimming through schools of young, silvery barracudas and other fishes, scuba diving with hammerhead sharks, and encountering a half-dozen intimidating moray eels.

During the filming of *Galápagos*, Dr. Baldwin and her colleagues conducted a great deal of undersea research not only with scuba gear but also in the *Johnson-Sea-Link II*, a modern research submersible that enabled them to explore to depths of 3,000 feet. Their findings included the discovery of numerous species previously not known to inhabit the Galápagos Islands and a dozen never before seen by humans, including a pencil urchin, a gastropod mollusk, and a sun star.

After viewing *Galápagos*, be sure to visit the exhibition *Darwin* to see live Galápagos tortoises and other animals and to learn more about Charles Darwin's voyage to the islands, the patterns of speciation he observed there, and how these observations led to his still-controversial theory of evolution by natural selection.

Screenings take place daily, every hour on the half hour, from 10:30 a.m. to 4:30 p.m. Tickets for Members are $10 for adults and $6 for children. To purchase tickets in advance, call 212-769-5200 or visit www.amnh.org. A service charge may apply.

A view of the dramatic landscape of Galápagos | A Smithsonian Institution and IMAX Corporation Presentation of a Mandalay Media Arts Production

IMAX films at the American Museum of Natural History are made possible by Con Edison.

Members' Programs

Programs are available to Members only, unless a non-Member's price is given.

BEHIND-THE-SCENES TOUR

Behind the Scenes in Ichthyology

Thursday, March 16 MB031606
6:30, 7:00, or 7:30 p.m.
$30

The Museum's Department of Ichthyology houses a spectacularly diverse worldwide collection of fishes—from the ancient coelacanth to the tropical marine life of Australia's Great Barrier Reef. In addition to the main collection of specimens preserved in alcohol, there is a special collection of cleared-and-stained specimens, one of the world's largest dry skeleton collections, and a larval fish collection. The department is ranked among the foremost international centers of ichthyological research. Meet Curators Scott Schaefer and Melanie Stiassny and Assistant Curator John Sparks during this informative and fascinating tour behind the scenes.

Cleared-and-stained Raja rhina | © 2000 Wm. Leo Smith/AMNH, Department of Ichthyology

LECTURES

Fish on Friday

Thursday, March 9 ML030906
7:00 p.m.
Kaufmann Theater
$12 ($15 Non-Members)

With Christianity in medieval Europe such a dominant cultural force, the Church's tradition of not eating "hot foods" on holy days created a vast market for fish. Anthropologist and

Brian Fagan | Courtesy of Brian Fagan

author Brian Fagan discusses his book *Fish on Friday: Feasting, Fasting, and the Discovery of the New World*, in which he describes how Christopher Columbus discovered America by capitalizing on centuries of seafaring knowledge known primarily to fishermen. Come hear the details of this intricately woven cultural history.

The Weather Makers

Tuesday, March 21 ML032106
7:00 p.m.
Kaufmann Theater
$12 ($15 Non-Members)

Internationally acclaimed scientist, explorer, and conservationist Tim Flannery brings together complex scientific issues about climate change and global warming that affect our everyday lives in his profound book *The Weather Makers*. Flannery will discuss the ways in which every person has a say in the future of Earth's climate and how we can all make a difference.

Flannery is the Director of the South Australian Museum and Professor at the University of Adelaide in Australia.

The Naming of Names

Thursday, March 23 ML032306
7:00 pm
Kaufmann Theater
$12 ($15 Non-Members)

For hundreds of years, the search for order in nature occupied some of the most brilliant minds in Europe and the New World, and plant identities acquired two-part names that showed their relationships to other plants. Who began this work and how was it done? Gardening Correspondent for the *Independent* and author Anna Pavord discusses these themes in her beautifully illustrated book, *The Naming of Names: The Search for Order in the World of Plants*. Pavord will present this fascinating journey of botanical history, traveling from Athens in the third century B.C. through Constantinople and Italy during the Renaissance.

Stephen C. Quinn | D. Finnin/AMNH

Windows on Nature: The Great Habitat Dioramas of the American Museum of Natural History

Thursday, March 30 ML033006
7:00 p.m.
Kaufmann Theater
$12 ($15 Non-Members)

The Museum houses some of the world's finest examples of habitat dioramas, which consist of historical works of art in the service of science. Senior Project Manager, Department of Exhibition, and artist and naturalist Stephen C. Quinn discusses his book, *Windows on Nature: The Great Habitat Dioramas of the American Museum of Natural History*. Quinn will show rarely seen historical photographs from the Museum's archives and will present an informative, entertaining description about the brilliant, passionate, and sometimes eccentric artists and naturalists who created the dioramas.

For tickets, call 212-769-5200, Monday–Friday, 9:00 a.m.–5:00 p.m., or visit www.amnh.org. Please have ready your credit card, your Membership number, and the program code. All Members' programs require advance registration.

EXPEDITION

A Day with the Wolves

Saturday, March 4 MO030406
9:00 a.m.–6:00 p.m.
$95

Once abundant throughout North America, wolves have struggled for survival because of over-hunting and loss of habitat. Visit the Wolf Conservation Center, where you will be introduced to the wild wolves that live there. Discover why the preservation of these amazing animals is essential, learn about ancient wolf mythology, and discuss what we can do to help protect their future. An informal lunch is included at a local pizzeria. Cost includes transportation by private coach and lunch.

Wolves at the Wolf Conservation Center | J. Henry Fair

HALL TOURS

Volcanoes, Earthquakes, and Tsunamis

Saturday, February 4
1:00–2:30 p.m. MT020406A
3:00–4:30 p.m. MT020406B
Portrait Room
Free (reservations required)

Join Museum Tour Guide Andrew Epstein as he leads this fascinating exploration of natural disasters. Learn what a volcano, an earthquake, and a tsunami really are, and discover how they are related. Find out their causes and the effects they have on the Earth and how scientists study them to learn from the past.

Kawa Ijen volcano, Indonesia | D. Finnin/AMNH

Myths and Legends around the World

Sunday, March 12 MT031206
3:00–4:30 p.m.
Portrait Room
Free (reservations required)

The Museum's cultural halls are full of myths and legends that are sacred to many cultures around the world. Ancient artifacts tell stories that help anthropologists learn more about the

WHALE WATCH WEEKEND

Friday, May 19, 9:00 a.m.–
Sunday, May 21, 7:00 p.m.
MO051906
$595 double occupancy
$95 additional for single occupancy

Discover the ecological riches of Cape Cod Bay, with its diverse array of seabirds and marine animals. Museum educator Jay Holmes leads a three-day excursion to historic Provincetown, Massachusetts, that will feature whale watching, bird walks, and a New England lobster bake, among other activities. Three chartered whale watch cruises in the Bay will be led by naturalists from the Provincetown Center for Coastal Studies. Aboard the vessel, learn to identify the birds and whales that migrate during the spring. Members will visit the Mystic Aquarium in Connecticut and take a guided bird walk along the picturesque trails of woodlands, salt marshes, and sandy beaches through the Massachusetts Audubon Society's Wellfleet Bay Wildlife Sanctuary. Enjoy free time on Saturday afternoon to explore charming Provincetown or simply relax on the beach. Although whale sightings vary from year to year and cannot be guaranteed, the weekend will provide new experiences as well as fun! Cost includes transportation by private coach, all meals, boat excursions, admissions, and two nights lodging (double or single occupancy) at the Provincetown Inn Seaside Resort overlooking scenic Provincetown Harbor.

Humpback whale | Provincetown Center for Coastal Studies

Humpback whale | Provincetown Center for Coastal Studies

beliefs and daily customs of various cultures. AMNH Tour Guide and mythology enthusiast Berna Villiers explores these ideas. Journey through the Museum as Villiers points out the stories told by the intricate wood carvings by the Maori people of New Zealand, the Navajo peoples' delicate weavings of Spider Woman, star pictures created by the African Bushman, and many more.

Coronate jellyfish | R. Mickens/AMNH

CHILDREN'S PROGRAMS

Amazing Adaptations: The Shapes and Colors of Ocean Creatures

Sunday, March 19 MC031906A
10:30 a.m.–12:00 noon
(Ages 8 and up; limited to 25)
Rose Center Classroom
$28

Did you know there are mountains, plains, forests, and volcanoes beneath the ocean's surface? Each of these watery habitats is home to creatures designed to survive in exactly such places. Join educator Amy O'Donnell on a virtual trip under the sea to explore the special body designs, behaviors, and chemistry of amazing ocean animals, from plankton to whales. Back in the classroom, use what you learned to create an "adaptation book" about one of the creatures that interests you most.

Night Light for Twilight Creatures

Sunday, March 19 MC031906B
1:30–3:00 p.m.
(Ages 8 and up; limited to 25)
Rose Center Classroom
$28

The Sun's rays only penetrate the top layer of the ocean. Beneath the bright waves lies a world in constant darkness where the only light is made by the fascinating creatures that inhabit these waters. Learn about bioluminescence, the chemistry of light created by living things, and find out how organisms use their "glow power" to survive in the twilight zone! Create a model of a bioluminescent creature and learn how your model uses lights. Educator Amy O'Donnell will lead this workshop.

PREVIOUSLY LISTED

Limited space may still be available for these programs.

What's Out There and What's Really Out There

Tuesday, February 7 ML020706
7:00 p.m.
Kaufmann Theater
$12 ($15 Non-Members)

Ray Villard and Mary K. Baumann, author of the new book, *What's Out There: Images from Here to the Edge of the Universe*, discuss selected images and the technical challenges of bringing them down to Earth.

Celebrate Africa

Saturday, February 18 MW021806
10:30 a.m.–2:00 p.m.
$45

Go behind the scenes of the Division of Anthropology's extensive African collection, which includes objects such as masks and headdresses used in the art of puppetry, one of the most ancient forms of entertainment and communication in various African cultures.

Behind the Scenes in Herpetology

Thursday, February 9 MB020906
6:30, 7:00, or 7:30 pm
$30

The Department of Herpetology maintains one of the largest collections of amphibians and reptiles in the world, with specimens from almost every country. Explore the department with scientific staff.

Treasure Hunt: *Survival of the Fittest*

Sunday, January 22
10:30 a.m.–12:30 p.m.
Portrait Room
Free and open to Contributor and higher-level Members
(recommended for ages 9 and up)
Reservations required:
Call 212-769-5606

Find out if your family is the fittest and can survive the American Museum of Natural History Treasure Hunt. Test your wits following clever clues through the Museum halls and dioramas on an adventure of biological discovery. Your detective skills and knowledge of nature will keep you off the bottom of the food chain!

Public Programs

These programs are available to the general public. Call 212-769-5200 for information and tickets.

LECTURES

Adventures in the Global Kitchen: Sake

Tuesday, January 17 EL011706
7:00 p.m.
Linder Theater
$20 ($18 Members)

Ring in the new year with Bon Yagi and Ken Kusakabe, owners of the restaurant Sakagura, along with sake expert Chris Pearce. Learn about the history, production, and different types of sake, and how to pair it with food.

The Best American Science Writing 2005

Thursday, February 16 EL021606
7:00 p.m.
Kaufmann Theater
$15 ($13.50 Members)

This event highlights some of the most thought-provoking science writing of the past year, presented through the prism of current events. Moderated by Alan Lightman.

Art/Science Collision: The Diorama

Tuesday, February 28 EL022806
7:00 p.m.
Kaufmann Theater
$15 ($13.50 Members)

The science, history, and artistry behind the Museum's famous dioramas are the subject of this discussion with Steven C. Quinn of the Department of Exhibition, Hanna Rose Shell, and Hiroshi Sugimoto.

DARWIN

The Science of Evolution

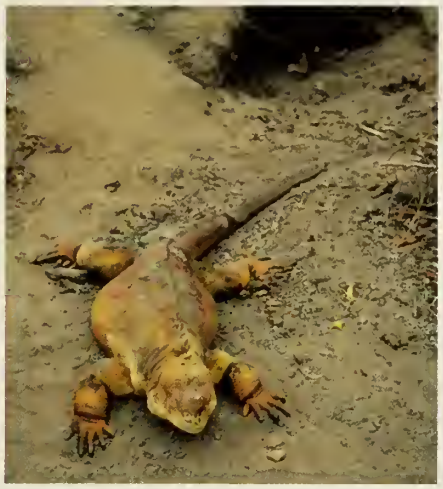
Thursday, January 5 EL010506
7:00 p.m.
Kaufmann Theater
$15 ($13.50 Members)
This program will be interpreted in ASL.

Evolution—the descent of species, with modification, from common ancestors—is a fact. Our understanding of how evolution occurs is the scientific "theory" of evolution. This lecture will address the fundamental elements and misconceptions of this theory.

Why the Galápagos Still Matter

Thursday, February 2 EL020206
7:00 p.m.
Kaufmann Theater
$15 ($13.50 Members)

While ecotourism thrives in the Galápagos, the islands remain a rare treasure for evolutionary biologists. Discussing their research there are Martin Wikelski, Kenneth Petren, and Gisella Caccone.



Galápagos land iguana | Steve Quinn

Charles Darwin and the Tree of Life

Saturday, February 4
12:00 noon and 2:30 p.m.
Linder Theater
Free with Museum admission

Reading, performance, and puppetry with MacArthur Fellow and author/illustrator Peter Sis. A book signing follows.

LIVING IN AMERICA

Celebrating Darwin's Voyages

Three Saturdays, January 14–28
1:00–5:00 p.m.
Kaufmann and Linder Theaters
Free with Museum admission

Following the path of Charles Darwin's historic five-year voyage aboard the HMS *Beagle*, performances, lectures, and films introduce visitors to some of the cultures he encountered during his journey.

Young visitors marvel at a fossil skull. | R. Mickens/AMNH

KIDS AND FAMILY

Identification Day

Sunday, February 12
1:00–5:00 p.m.
Hall of Birds of the World
Free with Museum admission

Celebrate Charles Darwin's birthday by asking Museum scientists and experts to identify your natural history mysteries for the Museum's annual Identification Day.

AMNH WINTER ADVENTURES

Monday–Friday, February 20–24
9:00 a.m.–4:00 p.m.
$400

Ocean Adventures

EC022006A

Fun-filled activities and trips to the Milstein Hall of Ocean Life and the New York Aquarium reveal the physical power of the ocean.
(For 4th and 5th graders)

Destination Space: Astrophysics

EC022006B

Students who wonder what it would be like to live, work, and travel in space will learn about the universe through hands-on activities.
(For 2nd and 3rd graders)

The Wonder of It All

Lansing Lamont | C. Chesek/AMNH

The Lamont family has for generations held a special fondness for the American Museum of Natural History and the work of its scientists. The Lamont Curatorship of Ornithology was created in 1948 by Thomas W. Lamont, and is now held by Dr. Joel Cracraft, Curator-in-Charge and Curator of the Museum's Department of Ornithology.

Building on his grandfather's legacy of support for scientific research, Lansing Lamont, an AMNH Trustee for more than 25 years and now an Honorary Trustee, recently created an endowed fund for ornithological research. "Birds have always fascinated me," says Lansing, a member of the Museum's Jesup Society. "They inspired Darwin's evolutionary ideas, the Wright Brothers, and those men and women who may one day land on Mars."

Mr. Lamont lives in New York City with his wife, Ada. They have four grown children and twelve grandchildren. After earning a graduate degree in journalism from Columbia University, Mr. Lamont went on to a distinguished career as a reporter and writer. He was a national political correspondent for the Washington bureau of *Time*; deputy chief of its London bureau; and chief correspondent for its Canadian and United Nations bureaus. He has written several books on foreign and public affairs, including the international bestseller *Day of Trinity*, a narrative history of the first atomic bomb test.

Mr. Lamont's observation that bird-watching is a useful precursor to journalism is apt. "It hones your powers of observation and helps make you aware of the smallest details."

The diorama pictured below—the Greater Snow Goose diorama—honors Mr. Lamont's brother Thomas, who died in World War II. The inscription on the plaque reads, "In Memory of Thomas W. Lamont II, 1924–1945, a boy who loved birds and who died while serving his country."

The Lamont family chose this particular diorama in the Sanford Hall of North American Birds for its breathtaking depiction of early fall on the northeast coastal marshes, and the attention given to the preservation of these rare and magnificent snow and blue geese.

The Eastern Upland Game Birds diorama on the other side of the south entrance to the hall (above) has recently been named for the Lansing Lamont and Thomas W. Lamont II Endowed Fund for Ornithology.

Eastern Upland Game Birds diorama | D. Finnin/AMNH

For information about endowed funds or life-income gifts, call or write the Office of Planned Giving at 212-769-5119 or email plannedgiving@amnh.org.

The Greater Snow Goose diorama | C. Chesek/AMNH

THE SKY'S THE LIMIT

Choose from three out-of-this-world gifts to educate and delight your future astronomer:

Solar System Mobile Snap-together planets, paints, and a hanging assembly make a 3-D, glow-in-the-dark solar system.
Nightscapes Create the night sky on any ceiling with glow-in-the-dark paints.
Cosmic Rocket Launch a rocket using ingredients found in any kitchen.

To place orders, call our Personal Shopper at 1-800-671-7035. Free shipping on orders $25 or more.

AMERICAN MUSEUM OF NATURAL HISTORY

WWW.AMNH.ORG

Rotunda.
American Museum of Natural History
Received on: 01-10-06

General Information

HOURS

Museum: Daily, 10:00 a.m.–5:45 p.m.
The Rose Center remains open until 8:45 p.m. on Friday. The Museum is closed Thanksgiving and Christmas.
Space Show: Every half hour, Sunday–Thursday and Saturday, 10:30 a.m.–4:30 p.m., Friday, 10:30 a.m.–7:00 p.m.
Research Library: Tuesday–Thursday, 2:00–5:30 p.m.
Hours are subject to change.

ENTRANCES

During Museum hours, visitors may enter through the subway (lower level), Central Park West at 79th Street (second floor), and the Rose Center/81st Street entrances. The Columbus Avenue entrance is open on weekends and holidays. The 77th Street entrance is closed until further notice.

TRANSPORTATION AND PARKING

Subway: B (weekdays) or C to 81st Street; 1 to 79th Street
Bus: M7, M10, M11, or M104 to 79th Street; M79 to Central Park West
Parking Garage: Open daily, 8:00 a.m.–11:00 p.m.; enter from West 81st Street. Members receive a discounted rate of $10 if entering after 4:00 p.m. To receive this rate, you must have your parking ticket validated at the Security Desk (first floor, Central Park West entrance). For more information, call 212-313-7278.

FOOD SERVICE

Museum Food Court: Daily, 11:00 a.m.–4:45 p.m. (*lower level*)
Café on 4: Saturday and Sunday, 11:00 a.m.–4:45 p.m (*fourth floor*)
Café 77: Saturday and Sunday, 11:00 a.m.–4:45 p.m (*first floor*)
American Soup Café: Seasonal hours, as posted (*lower level*)
Hours are subject to change.

MUSEUM SHOPS

The following Museum Shops are open during regular Museum hours:
Main Shop (*first and second floors*)
Dinostore (*fourth floor*)
Planetarium Shop (*Rose Center, lower level*)
Cosmic Shop (*Rose Center, second floor*)
Butterfly Shop (*second floor*)
Dinosaurs Exhibition Shop (*fourth floor*) through January 8
Darwin Shop (*third floor*)

PHONE NUMBERS

Museum Information	212-769-5100
Membership Office	212-769-5606
Central Reservations	212-769-5200
Communications	212-769-5800
Development	212-769-5151
Discovery Tours	212-769-5700
Education	212-769-5304
Event & Conference Services	212-769-5350
Library Services	212-769-5400
Member Birthday Parties	212-769-5606
Museum Shop	800-671-7035
Natural History Magazine	646-356-6500
Patrons Circle	212-769-5153
Planetarium Information	212-769-5900
Planned Giving Office	212-769-5119
Volunteer Office	212-769-5566
Web Site	www.amnh.org

www.amnh.org

AMERICAN MUSEUM OF NATURAL HISTORY

DOWNLOAD the current issue of ***Rotunda*** at **www.amnh.org/join**

Membership Department
Central Park West at 79th Street
New York, New York 10024-5192
www.amnh.org

rotunda

VOL. 31 NO. 2 MARCH/APRIL 2006

MEMBERS' NEWSLETTER

70
52
31
2
-Apr
06

AMERICAN MUSEUM OF NATURAL HISTORY

Museum Notes

CURRENTLY ON VIEW

Darwin

Through August 20
Gallery 3

Featuring live animals, actual fossil specimens collected by Charles Darwin, and manuscripts, this magnificent exhibition offers visitors a comprehensive, engaging exploration of the life and times of Darwin, whose discoveries launched modern biological science.

The American Museum of Noturol History grotefully ocknowledges The Howord Phipps Foundotion for its leodership support. Significont support for Darwin *hos olso been provided by Chris ond Shoron Dovis, Bill ond Leslie Miller, the Austin Heorst Foundotion, Jock ond Susan Rudin, ond Rosolind P. Wolter. Additionol funding provided by the Cornegie Corporotion of New York, Dr. Lindo K. Jocobs, ond the New York Community Trust–Wolloce Speciol Projects Fund.*

Darwin *is orgonized by the American Museum of Noturol History, New York (www.omnh.org), in colloborotion with the Museum of Science, Boston; The Field Museum, Chicogo; the Royol Ontorio Museum, Toronto, Conodo; and the Noturol History Museum, London, Englond.*

The Butterfly Conservatory: Tropical Butterflies Alive in Winter

Through June 23

Mingle with more than 500 live, free-flying tropical butterflies in an enclosed habitat that approximates their natural environment with lush vegetation and live flowering plants.

Admission is by timed entry only. Tickets are $10 for Members and $6 for Members' children.

This exhibition is mode possible, in port, through the generous support of JPMorgon Chose.

Voices from South of the Clouds

Through July 23
Akeley Gallery

Selected images from the Nature Conservancy's Photovoice project are displayed in this captivating exhibition that reveals the land and the people of China's Yunnan Province. This project puts the cameras in the hands of the villagers themselves,

This iguono is just one of the live onimols feotured in Darwin. | D. Finnin/AMNH

who use photography to chronicle their culture, religion, and daily life.

The exhibition is mode possible by o generous gront from Eostmon Kodak Company.

The presentotion of this exhibition ot the Americon Museum of Noturol History is mode possible by the generosity of the Arthur Ross Foundotion.

Vital Variety

Ongoing
IMAX Gallery

Beautiful close-up photographs highlight the immense diversity of invertebrates and their critical role in the survival of humankind.

HAYDEN PLANETARIUM SHOWS

SonicVision

Fridays and Saturdays,
7:30 and 8:30 p.m.

SonicVision is a trip out of this world and into the minds of the universe's most creative digital animators, set to a soundtrack of today's coolest music.

Now, for a limited time only, bring a friend FREE to *SonicVision*. Coupons are available at www.amnh.org.

Digitolly onimoted shapes swirl to the beot of Audioslove's "Cochise" in SonicVision. | D. Finnin/AMNH

Presented in ossociotion with MTV2 ond in colloborotion with renowned ortist Moby.

SonicVision *is mode possible by generous sponsorship and technology support from Sun Microsystems, Inc.*

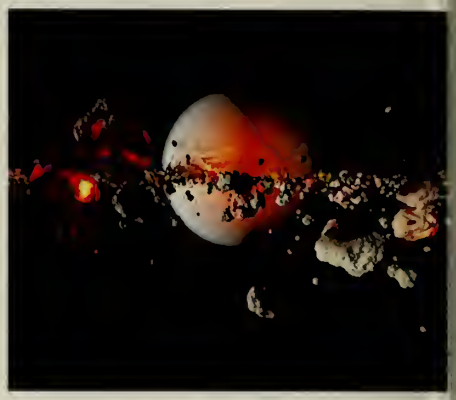
NEW! *Cosmic Collisions* Opens March 18

Journey into deep space—well beyond the calm face of the night sky—to explore cosmic collisions, hypersonic impacts that drive the dynamic formation of our universe. Robert Redford narrates.

Cosmic Collisions *wos creoted by the Americon Museum of Naturol History with the mojor support ond portnership of the Notionol Aeronoutics ond Spoce Administration's Science Mission Directorote, Heliophysics Division.*

Cosmic Collisions *wos developed in colloborotion with the Denver Museum of Nature ond Science; GOTO, Inc., Tokyo, Jopon; ond the Shonghoi Science ond Technology Museum.*

Cosmic Collisions *is mode possible through the generous support of CIT.*



Artist's conception of the formotion of our Moon | AMNH

LAST CHANCE! *The Search for Life: Are We Alone?* Closes March 17

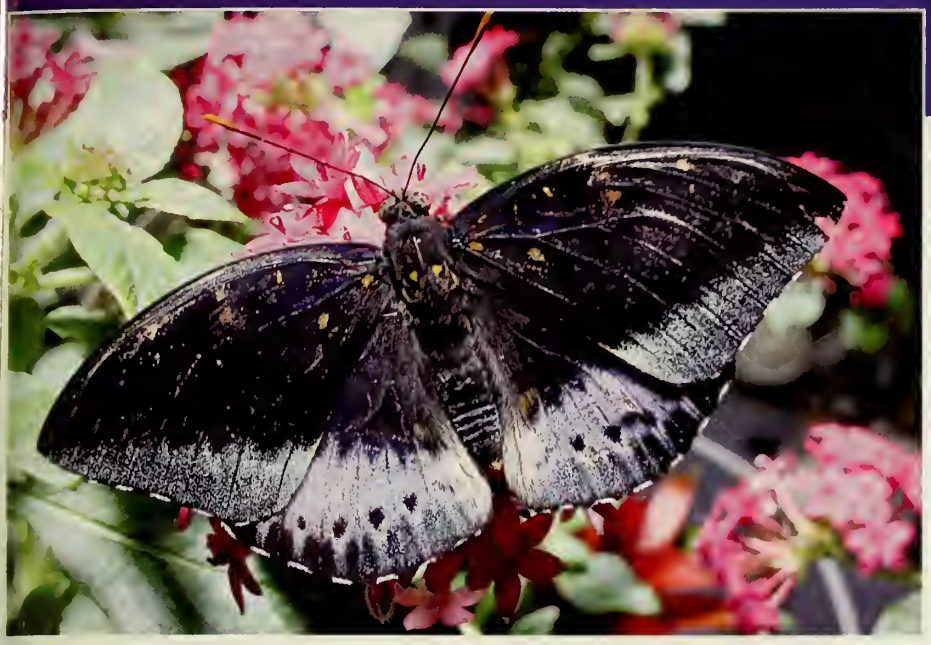
Journey from the lightless depths of Earth's oceans to newly discovered planets on a quest for worlds that might support life.

The Search for Life: Are We Alone? *is made possible through the generous support of Swiss Re.*

LAST CHANCE! *Passport to the Universe* Closes March 17

The original Hayden Planetarium Space Show, narrated by Tom Hanks, takes a tour of the known universe.

Cover: *Yellow worbler* | Donna Dewhurst/USFWS



Archduke butterfly (Lexias dirtea) | H. Davies/AMNH

The Space Shows *were developed by the American Museum of Natural History in collaboration with the National Aeronautics and Space Administration (NASA). Written by Ann Druyan and Steve Soter. Music by Stephen Endelman.*

SPECIAL LECTURES

76TH ANNUAL JAMES ARTHUR LECTURE ON THE EVOLUTION OF THE HUMAN BRAIN

Are Human Brains Unique?

Monday, April 3
6:00 p.m.
Kaufmann Theater
FREE

Michael Gazzaniga, Sage Center for the Study of Mind at UC, Santa Barbara, discusses his split-brain research and presents evidence for an "interpreter" that allows us to perceive some automatic behaviors as conscious, planned actions and feelings.

THE 2006 MACK LIPKIN MAN AND NATURE LECTURE

Biodiversity and the Evolutionary Roots of Beauty

Thursday, April 27
7:00 p.m.
Kaufmann Theater
FREE
(Seating limited; registration recommended)

Throughout history, individuals and cultures have been captivated by the unusual in nature and the diversity of the natural world. Renowned ecologist Gordon Orians explores the concept that an "environmental aesthetic" may be deeply rooted in our evolutionary history.

This lecture honors the late Dr. Mack Lipkin, Sr., who dedicated his life to advancing the practice of medicine.

IMAX MOVIES

Samuel J. and Ethel LeFrak Theater

Galápagos brings viewers face to face with iguanas, boobies, giant tortoises, moray eels, and more.

For showtimes, visit www.amnh.org or call 212-769-5100.

IMAX films at the American Museum of Natural History are made possible by Con Edison.

AND DON'T MISS...

Upper West Fest

Friday, April 28–Sunday, May 14

The largest collaborative arts festival ever presented on Manhattan's Upper West Side celebrates the unique music, dance, literary, theater, visual arts, and family programs presented from 59th to 116th Streets. Visit www.amnh.org to find out about Museum programs taking place during Upper West Fest.

AMNH Birthday Parties

The Cosmic Blast-Off birthday party features a tour through the Rose Center and an exciting new Space Show that's sure to sweep young astronauts into a whole new world. (Ages 7 and up)

Linda Kaye's Partymakers also presents three other festive party themes: Underwater Treasures, Dinosaur Discoveries, and Safari Adventure. Each party offers a winning combination of education and entertainment. Parties are tailored for children ages 4 and up and are available seven days a week as a benefit to Contributor and higher-level Members only. For more information and to request a date, visit www.partymakers.com or call Linda Kaye's Partymakers at 212-288-7112.

NEW!

AMNH REWARDS PROGRAM

Help our Membership grow and receive a great reward! Recruit three new Members at the Family ($115) level and receive a free year of Family Membership for yourself.

It's simple! Just ask your friends and family to write your name on their Membership form when they enroll and we'll do the rest. The Membership Office will notify you when you have earned your reward.

rotunda

ISSN 0194-6110
USPS Permit #472-650
Vol. 31, No. 2, March/April 2006

Lewis W. Bernard, *Chairman*
Ellen V. Futter, *President*
Lynn DeBow, *Senior Vice President for Development and Membership*
Rosemary Caulk, *Director of Membership*

Rotunda is published bimonthly, except for a combined issue in July/August/September and a single issue in December, by the Membership Office of the American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192. Phone: 212-769-5606. Web address: www.amnh.org. Museum membership of $55 per year and higher includes a subscription to *Rotunda*.

© 2006 American Museum of Natural History.

Periodical postage paid at New York, NY, and at additional mailing offices. Postmaster: please send address changes to *Rotunda*, Membership Office, AMNH, at the above address. Printed in the USA.

Birds and Biodiversity

Dr. Filardi conducting research in the tropical Pacific | K. Frey/CBC/AMNH

We recently spoke with ornithologist Dr. Christopher Filardi, who joined the Museum's Center for Biodiversity and Conservation in summer 2005. He spends much of his time conducting biodiversity research in the Pacific region, and he is currently coordinating scientific content for the CBC's spring symposium, Conserving Birds in Human-Dominated Landscapes: Weaving a Common Future.

Together with Dr. Robert Moyle of the Museum's Department of Ornithology, you recently published a paper in the journal* Nature *that attracted a lot of attention—can you explain its findings and why they are important?

For a long time islands were regarded by scientists as natural laboratories for understanding the diversification of life. Darwin's observations in the Galápagos Islands shaped his theory of evolution by natural selection.

Yet islands have generally been considered evolutionary "dead ends"; after animals and plants emigrated from the mainland, it was believed that they became so specialized for island life that they could not leave or compete in species-rich continental settings.

Today, with new technologies, we have revisited these assumptions about diversity on islands. Our new data for monarch flycatchers shows that animals can spread from island to island, giving rise to an explosion of new species, and can even colonize the mainland again.

Does this new finding have implications for how conservation decisions and actions are determined?

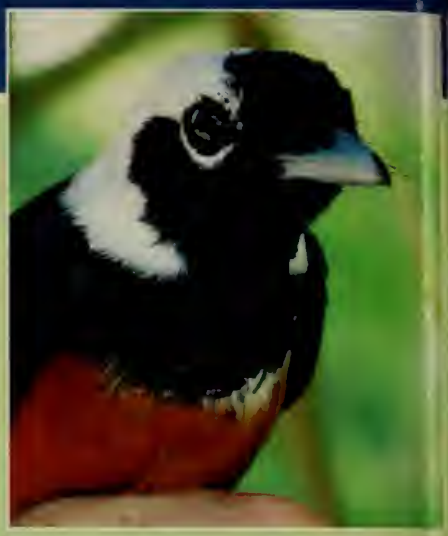
Absolutely. I suspect that the emphasis will shift from thinking about islands as icons of the evolutionary past to embracing the important role that islands play in generating global biodiversity. Oceanic islands may be far more critical in this regard than we've ever realized.

Tell us a little about the upcoming symposium.

Scientists and conservation practitioners have tended to focus their efforts on imperiled birds found in wild landscapes. What we've spent less time on is conserving the birds, and bird communities, that live among us, in landscapes that are dominated by humans—cities and suburbs, agricultural and industrial areas—which harbor some of the most exceptional patterns of bird diversity on Earth.

In developed landscapes we don't have the luxury—or the burden, depending on how you look at it—of conserving historic patterns of diversity, because those have been erased. The focus of the symposium is to identify and showcase possibilities for conserving birds in the areas we inhabit and use most intensively. This requires understanding how our behavior affects patterns of bird diversity.

One of the most obvious ways we have affected bird diversity is the introduction of alien species. In the late 1800s, there was a movement to introduce all the birds mentioned in Shakespeare's plays into Central Park. Most of these introductions did not work, but one did—the European starling. Today, starlings are entrenched across North America and compete directly with many native species.



*Male monarch flycatcher (*Monarchia richardssi*)* | C. Filardi/CBC/AMNH

We have also influenced bird populations by paving the way for overabundance. Historically, brown-headed cowbirds lived where American bison lived, following them and feeding in the wake of the great herds. With the eradication of the bison herds and the introduction of domestic cattle, brown-headed cowbirds have greatly expanded their range. Significantly, brown-headed cowbirds are brood parasites—they don't build their own nests but drop their eggs in other birds' nests for them to raise, to the detriment of the host's offspring. When the cowbird's range expanded, they came into contact with many birds that were naive—in an evolutionary sense—to brood parasites, and unwittingly raised a great number of cowbirds while their own species' outputs plummeted.

Prothonotary warbler | John and Karen Hollingsworth/USFWS

The good news is that many aspects of human-dominated landscapes also appear to nurture or attract some fairly spectacular birds. Certain raptors thrive in cities; here in New York for example, peregrines are nesting and raising offspring atop skyscrapers and on bridges. Central Park is a key stopover site for neotropical migratory birds such as warblers, vireos, and tanagers.

We believe there is a lesson here—some types of human activity can maintain or attract significant bird diversity. With this in mind, a central objective of the April symposium is to identify and capitalize on opportunities for reinvigorating bird diversity in human-dominated landscapes.

A peregrine falcon, one of the raptors that calls New York City home | Craig Koppie/USFWS

What can people do in their everyday lives to help conserve bird diversity?

Not surprisingly, agriculture has huge implications for birds, as it does for all of biodiversity. For example, choosing shade-grown, organic coffee is a way to support alternative agricultural systems that are less damaging to wildlife. Biologists report finding significantly fewer bird species in coffee fields cleared of all native growth.

Anyone with a yard, terrace, or roof deck can create a local "hotspot" for biodiversity by planting (or leaving in place) native trees and shrubs that provide nesting areas and protective cover for birds. Controlling non-native bird predators such as domestic cats is also important. Free-roaming domestic cats are responsible for killing perhaps hundreds of millions of birds each year. Many groups, including the Humane Society and the American Bird Conservancy, maintain that keeping your cat inside makes for a healthier and happier feline as well.

Finally, partly because we tend to conserve what we care about—and also because it's a lot of fun—learn about the birds that live in your area. Introduce a child or friend to the annual cadence of the lives of birds—migration and breeding, the shifts in behavior that allow tiny songbirds to survive a harsh northeastern winter, or the meter and meaning of birdsong on a spring morning.

Within the cityscape of New York, this is a great activity for kids. Central Park has been a reckoning point for my own children's growing awareness of the diverse world around them, and we have reveled in the comings and goings of the Park's many resident and migrant birds. Along these lines, the Center for Biodiversity and Conservation has produced a Kids' Guide to the Birds of Central Park, which is available free from the CBC at http://cbc.amnh.org.

Thank you, and we'll see you at the symposium.

THE CENTER FOR BIODIVERSITY AND CONSERVATION'S SPRING SYMPOSIUM

Conserving Birds in Human-Dominated Landscapes: Weaving a Common Future

Thursday and Friday, April 27 and 28
9:00 a.m.–5:00 p.m.
Kaufmann Theater

Special student pricing and Member discounts available

PEOPLE AT THE AMNH

Fiona Brady

Outreach Program Coordinator, Center for Biodiversity and Conservation

Fiona Brady has held several positions at the Museum, from science writer in the Department of Communications to loans manager in the Department of Mammalogy. Now, as Outreach Program Coordinator for the Center for Biodiversity and Conservation (CBC), Fiona seems to have found her place.

Fiona was asked to join the CBC in 2000 to organize and promote its scientific conferences and public programs. Her major focus is the CBC's annual biodiversity symposia. These two-day conferences provide a unique perspective on a topic of immediate concern to the survival of species and ecosystems. "Building a diverse audience is important, so that the information presented is shared not only among scientists, but also with policy makers, land-use planners, educators, students, and others."

Fiona also organizes public programs on sustainable living. "These events get everyone excited about simple ways to make a positive impact. My husband and I take these lessons to heart. We keep a worm bin in our kitchen to compost the majority of our garbage. It's quick, easy, and we're able to turn trash into fabulous food for our plants!"

After over a decade at the Museum, Fiona says she still looks forward to coming to work every day. "I get to collaborate with a fantastic group of people on vital issues, and I'm always learning!" When she's not working, Fiona enjoys fossil hunting with her husband.

Photo by Carl Mehling

Members' Programs

Programs are available to Members only, unless a non-Member's price is given.

BEHIND-THE-SCENES TOUR

Behind the Scenes in Entomology

Thursday, April 20 MB042006
6:30, 7:00, or 7:30 p.m.
$30

Take a special tour of the Museum's Department of Entomology, which houses more than 17 million examples of living and extinct arthropods. Senior Scientific Assistant Louis Sorkin will discuss forensic entomology; Christine LeBeau, Curatorial Assistant of Hymenoptera, will show the rarely seen Alfred Kinsey collection of gall wasps; and Senior Scientific Assistant Sarfraz Lodhi will present a stunning variety of pinned beetle specimens from around the world.

LECTURES

Richard Ellis at AMNH | Courtesy of Richard Ellis

Singing Whales and Flying Squid: The Discovery of Marine Life

Tuesday, March 7 ML030706
7:00 p.m.
Kaufmann Theater
$12 ($15 Non-Members)

Two-thirds of our planet is covered by water, home to an incredible variety of living organisms ranging in size from microbe to whale and in abundance from scarce to uncountable. What do we know today, how have we learned it, and what remains unknown (and unknowable) about the underwater world? Join Richard Ellis, Research Associate at the Museum and author of sixteen popular books, for an exploration of marine life.

Timothy; or, Notes of an Abject Reptile

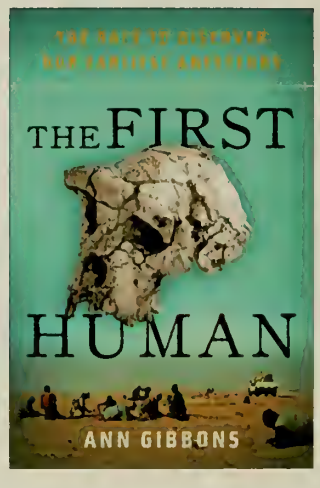
Tuesday, April 11 ML041106
7:00 p.m.
Kaufmann Theater
$12

The 18th-century English naturalist Gilbert White wrote about a tortoise named Timothy who lived in his garden. Verlyn Klinkenborg's *Timothy; or, Notes of an Abject Reptile* is the story told by Timothy, taking notes on the behavior of the naturalist and his neighbors. *Timothy* is, by turns, a fantasy, a meditation on the human place in nature, and a portrait of a time and way of living that has been lost to us.

The First Human

Tuesday, April 25 ML042506
7:00 p.m.
Kaufmann Theater
$12 ($15 Non-Members)

The quest to find the earliest human ancestor is one of the most exciting and challenging of all scientific pursuits. Award-winning *Science* magazine writer Ann Gibbons introduces four maverick fossil hunters in her book *The First Human: The Race to Discover Our Earliest Ancestors*. Ms. Gibbons will talk about the race to find the "missing link," the competitive world of fossil hunting, and the intense rivalries that propel it.



The River of Doubt

Thursday, May 4 ML050406
7:00 p.m.
Kaufmann Theater
$12 ($15 Non-Members)

Candice Millard, former *National Geographic* staff writer, examines Theodore Roosevelt's fascinating 1914 journey to the Amazon in her book *The River of Doubt: Theodore Roosevelt's Darkest Journey*. Ms. Millard discusses Roosevelt's encounters with native tribes, poisonous snakes, and other hardships, and how he changed the map of the Western Hemisphere forever.

Vietnam: A Natural History

Tuesday, May 23 ML052306
7:00 p.m.
Kaufmann Theater
$12 ($15 Non-Members)

Eleanor J. Sterling, Director of the Center for Biodiversity and Conservation, and Biodiversity Scientists Martha M. Hurley and Le Duc Minh discuss their book *Vietnam: A Natural History*. They explore Vietnam's evolutionary past and relationships between humans and the environment, and review the most recent scientific research and species discovered, touching on current threats and conservation of Vietnam's complex and fragile natural history.

EXPEDITIONS

Seals of Long Island

Saturday, April 8 MO040806
9:00 a.m.–6:00 p.m.
$85

Join the Riverhead Foundation for Marine Research and Preservation and sail from Point Lookout, Long Island, aboard the vessel *Lady JV* to view winter harbor seals in their environment. A naturalist will discuss the biology and behavior of the marine life in Hempstead Bay. Cost includes transportation by private coach and boat excursion.

On the Beach

Saturday, May 6 MO050606
9:00 a.m.–5:00 p.m.
$75

Join geologist Sidney Horenstein for three extensive walks on the beaches of Hammonasset Beach State Park, Long Island Sound. Members will study geological processes, collect shells, observe shorebirds, hike along the giant boulders of the moraine, and visit historic Willard's Island. Cost includes transportation by private coach.

Humpback whale | Provincetown Center for Coastal Studies

Whale Watch Weekend

Friday, May 19, 9:00 a.m.–
Sunday, May 21, 7:00 p.m. MO051906
$595 double occupancy
$95 additional for single occupancy

Discover the ecological riches of Cape Cod Bay. Museum Educator Jay Holmes leads a three-day excursion to historic Provincetown, Massachusetts, that will feature whale watching, bird walks, and a New England lobster bake. Join in one of three chartered whale watch cruises, visit the Mystic Aquarium, and take a guided bird walk through Wellfleet Bay Wildlife Sanctuary. Cost includes transportation by private coach, all meals, boat excursions, admissions, and two nights lodging at the Provincetown Inn Seaside Resort overlooking scenic Provincetown Harbor.

For further information, call the Membership Office at 212-769-5606.

HALL TOURS

April Fools! Popular Misconceptions in Nature

Saturday, April 1 MT040106
3:00–4:30 p.m.
Portrait Room
Free (reservations required)

There are many beliefs about the natural world we live in that are inconsistent with theories accepted by scientists. Don't be fooled! Join Museum Tour Guide Norman Rothwell for a light-hearted, informative tour through the Museum's halls on April Fool's Day. Learn why diamonds are *not* forever, why Rudolph the Red-Nosed Reindeer is female, and whether galaxies actually grow.

Birding around the World

Wednesday, April 5 MT040506
6:30–8:00 p.m.
$30

Join naturalist Stephen C. Quinn of the Department of Exhibition for a birding tour of the Museum's famous dioramas. Identify the rare as well as the common birds that reside in these renowned works of art representing natural settings. We guarantee the sighting of an ivory-billed woodpecker!

CHILDREN'S PROGRAMS

Tropical Rain Forest Diorama

Sunday, April 2
10:30 a.m.–12:00 noon MC040206A
(Ages 5–7; limited to 25 children)
1:30–3:00 p.m. MC040206B
(Ages 8 and up; limited to 25 children)
Rose Center Classroom
$28

The Museum's very own life-size Dzanga-Sangha Rain Forest in the Hall of Biodiversity displays a vast array of plant and animal species. Children will design and build their own tropical rain forest diorama and learn about the variety of living things there. Educator and artist Pamela Popeson will lead this workshop.

Millipede | Jay Holmes

Fangs and Feelers: Life in the Darkness under the Leaves

Sunday, May 7
10:30 a.m.–12:30 p.m. MC050706A
1:30–3:30 p.m. MC050706B
(Ages 9 and up; limited to 25 children)
$28

Our world is alive! Every little nook is home to something, and even the leaves on the ground create a special habitat. Museum Educator Jay Holmes offers an introduction in the Hall of Biodiversity, then leads a collecting field trip in Central Park. Back in the classroom, kids will use microscopes to identify the incredible creatures lurking in the leaves.

Dzanga-Sangha Rain Forest diorama, Hall of Biodiversity | E. Ferorelli

PREVIOUSLY LISTED

Limited space may still be available for these programs.

Behind the Scenes in Ichthyology

Thursday, March 16 MB031606
6:30, 7:00, or 7:30 p.m.
$30

The Museum's Department of Ichthyology houses a spectacularly diverse collection of fishes and is one of the top research centers in the world. Meet Museum ichthyologists during this informative and fascinating tour behind the scenes.

The Weather Makers

Tuesday, March 21 ML032106
7:00 p.m.
Kaufmann Theater
$12 ($15 Non-Members)

Scientist, explorer, and conservationist Tim Flannery, Director of the South Australian Museum, weaves together complex scientific issues about climate change and global warming that affect our everyday lives in his profound book *The Weather Makers*.

The Naming of Names

Thursday, March 23 ML032306
7:00 p.m.
Kaufmann Theater
$12 ($15 Non-Members)

British gardening correspondent and author Anna Pavord presents a fascinating journey of botanical history in her beautifully illustrated book *The Naming of Names: The Search for Order in the World of Plants*.

Windows on Nature

Thursday, March 30 ML033006
7:00 p.m.
Kaufmann Theater
$12 ($15 Non-Members)

Senior Project Manager in the Department of Exhibition and artist and naturalist Stephen C. Quinn discusses his book, *Windows on Nature: The Great Habitat Dioramas of the American Museum of Natural History*. Using archival materials, Mr. Quinn will present an informative, entertaining description of the passionate artists and naturalists who created the Museum's famous dioramas.

Alaskan Brown Bear diorama | J. Beckett and D. Finnin/AMNH

2006 ISAAC ASIMOV MEMORIAL DEBATE

Universe: One or Many?

Wednesday, March 29 HL032906
7:30 p.m.
LeFrak Theater, first floor
$14 ($12 Members, students, senior citizens)

Join a panel of cosmologists to argue and debate the possibility that our universe is just one of many universes that make up the "multiverse." This idea presupposes dimensions beyond our everyday experience and draws from the leading edge of our cosmological theories. The presence or absence of data in support of these concepts forms a central theme for the evening.

Panelists:

Michio Kaku, professor of physics at City College, CUNY; author of *Parallel Worlds*

Lawrence Krauss, professor of physics and astronomy at Case Western Reserve University; author of *Hiding in the Mirror: the Mysterious Allure of Extra Dimensions*

Andrei Linde, professor of physics at Stanford University, theoretical cosmologist and one of the original architects of the multiverse concept

Lisa Randall, professor of physics at Harvard University; author of *Warped Passages: Unraveling the Mysteries of the Universe's Hidden Dimensions*

Virginia Trimble, professor of astronomy and the history of science at University of California, Irvine

The late Dr. Isaac Asimov, one of the most prolific and influential authors of our time, was a dear friend and supporter of the American Museum of Natural History. In his memory, the Hayden Planetarium is honored to host the annual Isaac Asimov Memorial Debate—generously endowed by relatives, friends, and admirers of Isaac Asimov and his work—bringing the finest minds in the world to the Museum each year to debate pressing questions on the frontier of scientific discovery. Proceeds from ticket sales of the Isaac Asimov Memorial Debates benefit the scientific and educational programs of the Hayden Planetarium.

To learn more about this topic in advance of the debate, read Andrei Linde's "The Self-Reproducing Inflationary Universe," available at http://www.stanford.edu/~7Ealinde/1032226.pdf.

Public Programs

These programs are available to the general public. Call 212-769-5200 for information and tickets.

Spring Bird Walks in Central Park

Observe the spring migration of birds in Central Park with naturalists Stephen C. Quinn, Joseph DiConstanzo, and Harold Feinberg. Learn how to use field marks, habitat, behavior, and song as aids in identification. Four series of eight weekly walks begin Tuesday, April 4.

Culture and Wine

Five Tuesdays,
March 28–April 25 EK032806
7:00–9:00 p.m.
$195
Enrollment limited

Back by popular demand! Learn about the intertwining of wine and culture through the ages with this course led by Louisa Thomas Hargrave. Wine tastings will be conducted weekly.

On the Trail of the Ivory-Billed Woodpecker

Tuesday, March 21 EL032106
7:00–9:00 p.m.
Wallach Orientation Center
$15 ($13.50 Members)

Photographer Bobby Harrison will describe how the quest for the ivory-billed woodpecker quickly led to the largest search ever launched to find a rare bird.

DARWIN-RELATED PROGRAMS

Adventures in the Global Kitchen: Evolution of Taste

Thursday, March 9 EL030906
7:00 p.m.
Wallach Orientation Center
$15 ($13.50 Members)

Join Lionel Tiger, Rutgers University; renowned food writer Harold McGee; and Vanina Leschziner, Rutgers University, to discuss the evolution of taste and smell and prehistoric humans' diet. Also, sample foods from chef Bill Yosses of Citarella restaurant.

Cracking the Ocean Code: Craig Venter

Sunday, March 12 EL031206
2:00–3:00 p.m. Screening
3:15–4:15 p.m. Discussion
Kaufmann Theater
Free with Museum admission

Follow genomics pioneer J. Craig Venter and his team as they hunt for new life forms and genetic secrets that may help solve the planet's most urgent energy and climate challenges.

Salvatore Diliberto

Science and Faith

Thursday, March 16 EL031606
7:00 p.m.
LeFrak Theater
$15 ($13.50 Members)

Heated debates have focused on the incompatibility of religion and modern science. But, for many scientists, their religious beliefs complement, rather than conflict with, their pursuit of science. Krista Tippett (host of Public Radio's *Speaking of Faith*) moderates this timely panel.

KIDS AND FAMILY

Dr. Nebula's Laboratory

2:00–3:00 p.m.
Kaufmann Theater
$8 children, $10 adults
Recommended for families with children ages 4 and up

Light and Optics
Saturday, March 11 RC031106

Wind and Water
Sunday, April 23 RC042306

Bombardier beetle | ©Thomas Eisner and Daniel Aneshansley, Cornell University

AMNH Spring Camps

Monday–Friday, April 17–21
9:00 a.m.–4:00 p.m.
$400

Meet the Beetles: Darwin Adventures EC041706A

Break out your magnifying glasses and get ready to observe the natural world and its amazing creatures. (For 2nd and 3rd graders)

Destination Space: Stars and Light EC041706B

Students who wonder what it would be like to live, work, and travel in space will learn about the universe through hands-on activities. (For 3rd and 4th graders)

GLOBAL WEEKENDS

Spring Festival and International Earth Day

Sunday, March 19
11:00 a.m.–4:00 p.m.
Various Museum locations
Free with Museum admission

The spring equinox and International Earth Day officially arrive on Monday, March 20. Experience a great day for the whole family—including readings, performances, and workshops on the culture and science of spring.

Global Weekends are made possible, in part, by The Coca-Cola Company, the City of New York, and the New York City Council. Additional support has been provided by the May and Samuel Rudin Family Foundation, Inc., the Tolan Family, and the family of Frederick H. Leonhardt.

Moveable Museum Fleet Expands

The Museum announces the launch of a new Moveable Museum, *Dinosaurs: Ancient Fossils, New Discoveries*, focused on the latest findings in paleontology. This addition to the Moveable Museum fleet is a state-of-the-art, walk-in exhibition space housed in a converted recreational vehicle, made possible through the generous corporate support of Bloomberg and complementing the Museum's recent special exhibition of the same name.

Rendering of the Dinosaurs: Ancient Fossils, New Discoveries *Moveable Museum* | AMNH

Inside, the vehicle will be divided into three primary zones, designed to engage and stimulate learning. The first zone, "Age of Dinosaurs," will let visitors touch and examine fossil evidence as they learn how paleontologists classify dinosaurs, study their environment, and understand what may have caused the great mass extinction that ended the Age of Dinosaurs. Visitors will see how fossils are formed and later discovered, and will have an opportunity to reconstruct a full-scale *Coelophysis* skeleton based on what they've learned.

The second zone, "Mesozoic Mysteries," will introduce a series of questions about dinosaur diet, movement, and behavior that can be examined based on analysis of fossilized teeth, eggs, footprints, and trackways, and even their coprolites (fossilized feces). Visitors can touch models of dinosaur teeth and examine a coprolite sample to determine what kind of dinosaur is the "poopetrator."

The final zone, "Bird-Dino Connection," will feature a diorama re-creating a 130-million-year-old prehistoric forest in what is now Liaoning Province, China. Here, the fossil evidence indicating that birds are living dinosaurs will be further examined by allowing visitors to compare their skeletons, feathers, and behaviors.

A combination of interactive activities, interpretive models, captivating video presentations, and numerous fossil specimens ensures that the Museum's newest Moveable Museum will offer exciting learning opportunities for all ages. *Dinosaurs: Ancient Fossils, New Discoveries* joins *The Paleontology of Dinosaurs* and these other Moveable Museums in the Museum's current fleet:

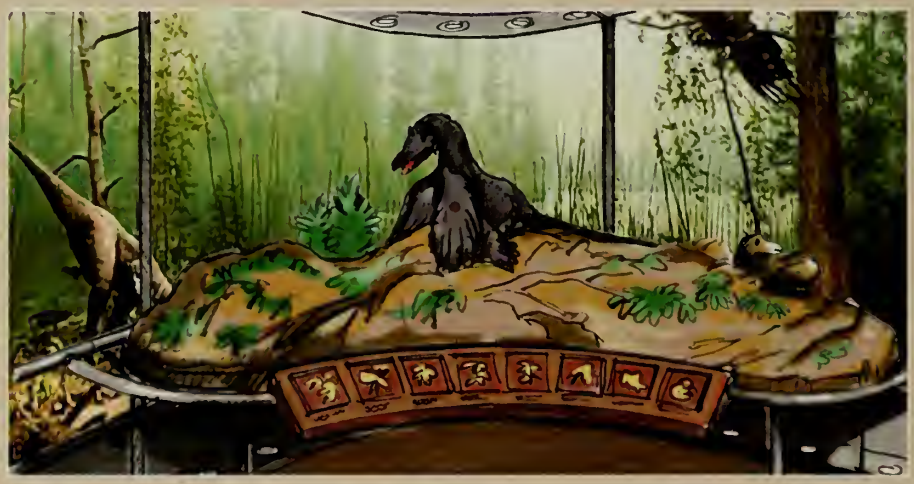
Structures & Culture provides visitors with an opportunity to do the work of a cultural anthropologist, exploring and studying the traditional homes and material cultures of three nomadic peoples—the Mongols, the Gabra of Kenya, and the Blackfeet of Montana.

Discovering the Universe engages visitors in a hands-on laboratory filled with telescopes and interactive exhibits that let them explore concepts in astronomy and astrophysics such as light, digital imaging, 3-D cosmic modeling, and gravity.

The Moveable Museums are free of charge and available year-round for school programs, summer programs, and community events. School programs are offered to public, private, and parochial schools throughout New York City. All school programs include a pre-visit teacher workshop, in-class lessons with Museum educators, and a visit to the Moveable Museum. The Moveable Museums are also popular attractions at community centers, libraries, and large-scale community events.

For more information, please contact Kevin Orangers, Manager of the Moveable Museum Program, at 212-769-5138.

The Dinosaurs: Ancient Fossils, New Discoveries *Moveable Museum is generously supported by Bloomberg. The* Paleontology of Dinosaurs *Moveable Museum is made possible by the children and grandchildren of Irma and Paul Milstein. The* Structures & Culture *Moveable Museum is generously supported by Citigroup. The* Discovering the Universe *Moveable Museum is made possible through the generous support of the Charles Hayden Foundation. Additional support for the Moveable Museum program is provided by The Barker Welfare Foundation and KeySpan Energy.*



Rendering of interior of the Dinosaurs: Ancient Fossils, New Discoveries *Moveable Museum* | AMNH

Make Learning Fun!

ke mealtime fun and inspire your child to learn about butterflies, space, dinosaurs, or sea . Each themed set includes a book with corresponding decorative place settings. To place lers with our Personal Shopper, call 1-800-671-7035. Allow 7–10 days for delivery.

AMERICAN MUSEUM & NATURAL HISTORY

WWW.AMNH.ORG

General Information

HOURS

Museum: Daily, 10:00 a.m.–5:45 p.m.
The Museum is closed Thanksgiving and Christmas.
Space Show: Every half hour, 10:30 a.m.–4:30 p.m.
Research Library: Tuesday–Thursday, 2:00–5:30 p.m.
Hours are subject to change.

ENTRANCES

During Museum hours, visitors may enter through the subway (lower level), Central Park West at 79th Street (second floor), and the Rose Center/81st Street entrances. The Columbus Avenue entrance is open on weekends and holidays. The 77th Street entrance is closed until further notice.

TRANSPORTATION AND PARKING

Subway: B (weekdays) or C to 81st Street;
1 to 79th Street
Bus: M7, M10, M11, or M104 to 79th Street;
M79 to Central Park West
Parking Garage: Open daily, 8:00 a.m.–11:00 p.m.; enter from West 81st Street. Members receive a discounted rate of $10 if entering after 4:00 p.m. To receive this rate, you must have your parking ticket validated at the Security Desk (first floor, Central Park West entrance). For more information, call 212-313-7278.

FOOD SERVICE

Museum Food Court: Daily,
11:00 a.m.–4:45 p.m. (*lower level*)
Café on 4: Saturday and Sunday,
11:00 a.m.–4:45 p.m (*fourth floor*)
Hours are subject to change.

MUSEUM SHOPS

The following Museum Shops are open during regular Museum hours:
Main Shop (*first and second floors*)
Dinostore (*fourth floor*)
Planetarium Shop (*Rose Center, lower level*)
Cosmic Shop (*Rose Center, second floor*)
Butterfly Shop (*second floor*)
Darwin Shop (*third floor*)
Online Shop (*www.amnh.org*)

PHONE NUMBERS

Museum Information	212-769-5100
Membership Office	212-769-5606
Central Reservations	212-769-5200
Communications	212-769-5800
Development	212-769-5151
Discovery Tours	212-769-5700
Education	212-769-5304
Event & Conference Services	212-769-5350
Library Services	212-769-5400
Member Birthday Parties	212-769-5606
Museum Shop	800-671-7035
Natural History Magazine	646-356-6500
Patrons Circle	212-769-5153
Planetarium Information	212-769-5900
Planned Giving Office	212-769-5119
Volunteer Office	212-769-5566
Web Site	www.amnh.org

www.amnh.org

AMERICAN MUSEUM OF NATURAL HISTORY

Rotunda.
American Museum of Natural History
Received on: 02-27-06

AVAILABLE IN
Museum
Shops
APRIL 1

Membership Department
Central Park West at 79th Street
New York, New York 10024-5192
www.amnh.org

rotunda

L. 31 NO. 3 MAY/JUNE 2006

MEMBERS' NEWSLETTER

0
2
31
3
-Jun
6

AMERICAN MUSEUM of NATURAL HISTORY

Museum Notes

CURRENTLY ON VIEW

Darwin

Through August 20
Gallery 3

This magnificent exhibition offers visitors a comprehensive, engaging exploration of the life and times of Charles Darwin, whose discoveries, observations, and subsequent insights in the 19th century forever changed the perception of the origin and nature of our own species and launched modern biological science. The exhibition features live animals from the Galápagos Islands, actual fossil specimens collected by Darwin, and an original notebook from his historic voyage aboard the HMS *Beagle*.

The American Museum of Natural History gratefully acknowledges The Haward Phipps Faundatian far its leadership suppart. Significant suppart far Darwin *has alsa been pravided by Chris and Sharan Davis, Bill and Leslie Miller, the Austin Hearst Faundatian, Jack and Susan Rudin, and Rosalind P. Walter. Additianal funding pravided by the Carnegie Corparatian af New Yark, Dr. Linda K. Jacabs, and the New Yark Cammunity Trust–Wallace Special Projects Fund.*

Darwin *is organized by the American Museum af Natural History, New Yark (www.amnh.org), in callabaration with the Museum af Science, Bastan; The Field Museum, Chicaga; the Rayal Ontaria Museum, Taranta, Canada; and the Natural History Museum, Landan, England.*

The Butterfly Conservatory: Tropical Butterflies Alive in Winter

Through June 23
Whitney Memorial Hall of Oceanic Birds

The butterflies are back for their eighth year! Mingle with more than 500 live, free-flying tropical butterflies in an enclosed habitat that approximates their natural environment with lush vegetation and live flowering plants.

Admission is by timed entry only. Tickets are $10 for Members and $6 for Members' children.

This exhibitian is made passible, in part, thraugh the generaus suppart af JPMargan Chase.

Cover: *Collared lizard* | D. Finnin/AMNH

Charles Darwin's study | D. Finnin/AMNH

Voices from South of the Clouds

Through July 23
Akeley Gallery, second floor

Selected images from the Nature Conservancy's Photovoice project are displayed in this captivating exhibition that reveals the land and the people of China's Yunnan Province. This project puts the cameras in the hands of the villagers themselves, who use photography to chronicle their culture, religion, and daily life, as well as their interaction with the local environment, and whose voices are heard through statements about their work.

The exhibitian is made passible by a generaus grant fram Eastman Kadak Company. The presentatian af this exhibitian at the American Museum af Natural History is made passible by the generasity af the Arthur Ross Faundatian.

Malachite butterfly, Sopraeta stelenes | H. Davies/AMNH

Vital Variety

Ongoing
IMAX Gallery

Beautiful close-up photographs highlight the importance of the immense diversity of invertebrates and their critical role in the survival of humankind.

IMAX MOVIES

Samuel J. and Ethel LeFrak Theater

Galápagos brings viewers face to face with iguanas, boobies, giant tortoises, moray eels, and more.

For showtimes, visit www.amnh.org or call 212-769-5100.

IMAX films at the American Museum af Natural Histary are made passible by Can Edison.

HAYDEN PLANETARIUM SHOWS

Cosmic Collisions

Journey into deep space—well beyond the calm face of the night sky—to explore cosmic collisions, hypersonic impacts that drive the dynamic formation of our universe.

Cosmic Collisions *was developed in collaboration with the Denver Museum of Nature & Science; GOTO, Inc., Tokyo, Japan; and the Shanghai Science and Technology Museum.*

Cosmic Collisions *is made possible through the generous support of CIT.*

Cosmic Collisions *was created by the American Museum of Natural History with the major support and partnership of the National Aeronautics and Space Administration's Science Mission Directorate, Heliophysics Division.*

SonicVision

Fridays and Saturdays, 7:30 and 8:30 p.m.

SonicVision is a trip out of this world and into the minds of the universe's most creative digital animators, set to a soundtrack of today's coolest music.

Now, for a limited time only, bring a friend FREE to *SonicVision*. Coupons are available at www.amnh.org.

Presented in association with MTV2 and in collaboration with renowned artist Moby.

SonicVision *is made possible by generous sponsorship and technology support from Sun Microsystems, Inc.*

AMNH

The Galápagos Islands | A Smithsonian Institution and IMAX Corporation Presentation of a Mandalay Media Arts Production

AND DON'T MISS...

Upper West Fest

Friday, April 28–Sunday, May 14

The largest collaborative arts festival ever presented on Manhattan's Upper West Side celebrates the unique music, dance, literary, theater, visual arts, and family programs presented from 59th to 116th Streets. Visit www.amnh.org to find out about Museum programs taking place during Upper West Fest and for special discounts at other participating institutions.

AMNH Birthday Parties

Ever wonder what would happen if you ate for 19 hours every day like an elephant? Or if you could be as lazy as a lion and sleep for 17 hours a day? Discover a jungle of fun facts when you celebrate your child's birthday with a Safari Adventure Treasure Hunt. Using rhyming clues and thinking caps, the birthday child, guests, and parents trek together through the Akeley Hall of African Mammals past elephants, lions, giraffes, cheetahs, and other beloved beasts. You'll be wild about this fantastic adventure as your child finds the hidden treasure and is crowned King or Queen of the Jungle!

"Our daughter will never forget the magic of searching for her crown among the animals of Africa. She wears her crown every day now and cherishes the memory of exploring Africa with all her friends."
— Mother of Emma, age 4

Linda Kaye's Partymakers also presents three other festive party themes: Underwater Treasures, Dinosaur Discoveries, and Safari Adventure. Each party offers a winning combination of education and entertainment. Parties are tailored for children ages 4 and up and are available seven days a week as a benefit to Contributor and higher-level Members only. For more information and to request a date, visit www.partymakers.com or call Linda Kaye's Partymakers at 212-288-7112.

rotunda

ISSN 0194-6110
USPS Permit #472-650
Vol. 31, No. 3, May/June 2006

Lewis W. Bernard, *Chairman*
Ellen V. Futter, *President*
Lynn DeBow, *Senior Vice President for Development and Membership*
Rosemary Caulk, *Director of Membership*

Rotunda is published bimonthly, except for a combined issue in July/August/September and a single issue in December, by the Membership Office of the American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192. Phone: 212-769-5606. Web address: www.amnh.org. Museum membership of $55 per year and higher includes a subscription to *Rotunda*.

© 2006 American Museum of Natural History.
Periodical postage paid at New York, NY, and at additional mailing offices. Postmaster: please send address changes to *Rotunda*, Membership Office, AMNH, at the above address. Printed in the USA.

Lizards & Snakes: Alive! OPENS SATURDAY, JUNE 24

Live lizards and snakes are the center of attention in this engaging, family-friendly exhibition, opening June 24, 2006. Visitors will journey through the wide world of squamates—legged and legless lizards, including snakes—to explore the evolution of these creatures and the remarkable diversity of their shapes, diet, and behavior.

Squamates are found everywhere but the coldest and highest places on Earth. Projectile tongues, deadly venom, amazing camouflage, and sometimes surprising modes of movement, from side-winding to running on water, are just some of the adaptations that have allowed them to thrive around the world.

The exhibition is grounded in the evolutionary history of the group and is divided, as the squamates themselves are, into two loose groups: "sight hounds" and "nose hounds," with many species falling somewhere in between. Sight hounds have keen vision and rely on sight to locate their prey. These animals are "tongue grabbers," using their tongues to capture prey after finding it.

Water dragon | D. Finnin/AMNH

The transitional group, including geckos and girdled lizards, exploits more niches than sight hounds but lacks the adaptations of nose hounds—most with forked tongues—who use their tongues for chemoreception. They are "tooth grabbers," using their teeth to capture their prey. Many within this group are snakes.

Veiled chameleon | D. Finnin/AMNH

In addition to more than 60 live animals representing 27 different species, the exhibition will also feature fossil specimens; touchable casts and even a climbable life-size model; videos of lizards and snakes in action and behind-the-scenes views into squamate research; authentic sound recordings; interactive cameras that allow visitors to "zoom in" on live geckos; and more than a dozen other hands-on exhibits and activities.

The live specimens represent iguanas, geckos, skinks, chameleons, water monitors, Gila monsters, boa constrictors, cobras, pythons, and many more, and include diurnal and nocturnal species, venomous and harmless species, and shy and aggressive species. Their re-created habitats incorporate rock ledges, live plants, and water features so each animal feels right at home.

Emerald boa | D. Finnin/AMNH

Curated by Darrel Frost, Curator-in-Charge, and David Kizirian, Curatorial Associate, both of the Department of Herpetology, and Jack Conrad, Postdoctoral Fellow, Division of Paleontology, the exhibition conveys the latest research findings on squamates, reflecting the ongoing work conducted by Museum scientists and their colleagues around the world.

Lizards & Snakes: Alive! *is made possible, in part, by a grant from The Dyson Foundation.*

Gila monster | D. Finnin/AMNH

Jack Conrad

Kalbfleisch Postdoctoral Fellow, Division of Paleontology

While most scientists claim they would give an arm or a leg to further their work, Jack Conrad almost did—literally. On a three-month expedition to the Sahara, he was bitten by a poisonous insect and was given an ultimatum: he'd have to be evacuated to a hospital, or risk losing his foot. Jack pressed his luck and still has both feet.

Born in the Ozarks in southwest Missouri in a small town of only 122 people, Jack became intrigued by fossils at a very young age, a passion that would never subside. As he worked toward his doctorate from the University of Chicago, he continued to follow news on a cache of fossils that AMNH has been collecting since the early 1990s. Again pressing his luck, Jack applied to only one place for his postdoc, and once again, the bet paid off.

Jack's research on this massive collection of fossils consists mainly of phylogenetic analysis, comparing specimens to living species or other fossils. Since he arrived in September 2005, he has been working on the upcoming exhibition *Lizards & Snakes: Alive!* "Lizards are a good system to study because many living analogues are very similar, at least in their ecology and ecosystem types."

As Jack talks about the research to be done, he opens a drawer of fossils that have not yet been studied. "There are probably ten new species of lizards in this drawer alone, waiting to be identified." In the meantime, Jack is enjoying work on the exhibition. "Coming here, I didn't think I'd have an opportunity to teach the public, and it's been really rewarding."

Photo by K. Murr

David Kizirian

Curtorial Associate, Department of Herpetology, Division of Vertebrate Zoology

David Kizirian has been a herpetologist longer than he can remember. At age 3, he came home and handed his mother a jar with a snake inside, the first of many that he would eventually care for and study.

Last August, David returned to the Museum as Curatorial Associate in the Department of Herpetology. He had worked here several years earlier as a postdoctoral fellow in Herpetology and later in the Department of Ornithology's molecular laboratory. "My emphasis now is to catalogue the backlogged collections—the tens of thousands of specimens that are not yet integrated into the main herpetological collection." However, he admits that most of his time has been focused on the exhibition *Lizards & Snakes: Alive!* which he co-curates.

"Museums don't generally incorporate live animals into their exhibitions, only taxidermic specimens. With *Lizards & Snakes: Alive!* we combine the two formats and so can emphasize content information about the animals while allowing people to interact with them."

From Rhode Island, where there are no lizards, he spent much of his time in the south, where he has family, and, of course, there are many species of lizards. He attended college at Texas A&M University, received his master's in biology from University of Texas at El Paso, and completed his doctoral work in systematics and ecology at the University of Kansas.

When asked about his hobbies, David gets a far-off look in his eye, recalling what it was like to have spare time. His eyes then light up as he points to a picture of his five-month-old daughter, Miya, whom he calls his "biggest outside interest."

Photo: R. Mickens/AMNH

Members' Programs

Programs are available to Members only, unless a non-Member's price is given.

Robert Seyfarth doing fieldwork with baboons | Courtesy of the Leakey Foundation

LECTURE

The Origins of Human Intelligence

Tuesday, May 30 ML053006
7:00 p.m.
Kaufmann Theater
$12 ($15 Non-Members)

Robert Seyfarth, Professor of Psychology at the University of Pennsylvania, will discuss his research with baboons in Botswana that demonstrates the adaptive value of social intelligence, a key component to understanding how human intelligence evolved. Social intelligence is essential to survival because individuals must predict other animals' behavior and anticipate who will form alliances with whom.

This lecture is cosponsored by the Leakey Foundation and AMNH.

EXPEDITIONS

Magnificent Mines and Minerals Tour

Saturday, June 10 MO061006
9:00 a.m.–6:00 p.m.
$95

Journey back in time with Museum geologist Joe Boesenberg and visit the Franklin-Sterling Hill mining area in northwestern New Jersey. On this expedition, Members will tour an underground zinc mine and explore stunning minerals in the underground tunnels. At the Franklin Mineral Museum, peruse an extensive collection of local and worldwide minerals before collecting minerals and rocks at the site. Cost includes transportation by private coach and museum admission.

Sail aboard the Clearwater

Sunday, June 25 MO062506
1:45–5:00 p.m.
$75

The Hudson River is a magnificent natural environment of freshwater streams from the Adirondacks and salt tides of the Atlantic. Sail the Hudson aboard the historic *Clearwater*, a 106-foot wooden sailing sloop designed after 18th- and 19th-century Dutch ships. The crew will discuss the cultural heritage of the area and the ecology of the river. Learn why it is essential to protect the Hudson River, its tributaries and diverse fish species, along with the estuary's complex relationship with the coastal zone. Limited space is available, so please reserve early.

The Hudson River Sloop Clearwater | © Hudson River Sloop Clearwater

Exploring Great Gull Island

Thursday, July 20 MO072006
8:00 a.m.–6:00 p.m.
$150

Great Gull Island, a Museum research station in Long Island Sound, is the site of ongoing research on the endangered roseate tern and the threatened common tern. Take advantage of this rare opportunity to journey by boat to the 17-acre island, which is usually open only to researchers and scientists. Led by Helen Hays, a Museum ornithologist who has been studying birds for over 30 years, participants will watch hatching chicks, track nests, analyze colonies, and explore the army buildings and battlements of an old fort built on the island in 1898. Cost includes transportation by private coach and chartered boat. This trip is limited to 25 participants.

A tern on Gull Island | © Gary Lehman, 2005

Biodiversity of the Central Pine Barrens

Saturday, July 22 MO072206
9:00 a.m.–6:00 p.m.
$85

The Upton Ecological and Research Reserve in the Central Pine Barrens, located on Long Island, comprises over 5,200 acres of undeveloped land, protected reserves, parks, scrublands, wetlands, and forests. Its diverse habitats are home to many rare and endangered reptile and amphibian species. Timothy M. Green, Cultural and Natural Resource Manager at Brookhaven National Laboratory (BNL), will discuss current research projects being conducted at BNL that pertain to conservation, species ecology and wildlife management, and the importance of reptile and amphibian preservation. Members will visit the science facilities and explore the grounds. Cost includes transportation by private coach.

For tickets, call 212-769-5200, Monday–Friday, 9:00 a.m.–5:00 p.m., or visit www.amnh.org. Please have ready your credit card, your Membership number, and the program code. All Members' programs require advance registration.

View from Split Rock

Black Rock Forest Weekend

Saturday, August 5, 9:00 a.m.–
Sunday, August 6, 6:00 p.m.
MO080506
$245 per person
$195 per child (12 years old and under)

Beautiful Black Rock Forest, a 4,000-acre region that is home to native flora and fauna that have become increasingly rare, is a natural treasure of the Hudson Valley. Its dramatic topography makes it an ideal living laboratory for scientists as well as nature enthusiasts wishing to escape the City. Join this overnight trip and stay in the newly built Black Rock Forest Lodge, where spacious rooms incorporate "green" features and outstanding views. Enjoy nature walks led by Black Rock Forest educators with a focus on wildlife biology, forest conservation, tree ecology, and environmentally friendly architecture. Families can explore the grounds and enjoy nighttime activities such as an astronomy watch. Cost includes transportation by private coach, one night in the Black Rock Forest Lodge, meals at the lodge, all gratuities, nature walks, and activities.

Lodge at Black Rock Forest

Photos courtesy of the Black Rock Forest Consortium

WALKING TOURS

The Geology and History of Brooklyn Heights

Thursday, July 13 MW071306
10:00 a.m.–12:30 p.m.
$22

Join geologist Sidney Horenstein on this morning walk through historic neighborhoods in Brooklyn that are rich with geological history. Enjoy spectacular views of Manhattan and the Harbor. Learn about New York's first suburb, Brooklyn Heights, which resides high on a hill of glacial deposits, and explore Brooklyn City Hall, built when Brooklyn was an independent city.

City Hall to Foley Square

Tuesday, August 8 MW080806
6:00–8:00 p.m.
$22

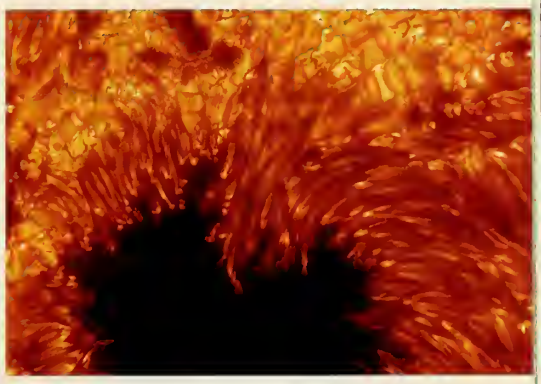
Explore the fascinating history and architecture of lower Manhattan in the company of geologist Sidney Horenstein on this summer evening walk. Starting at City Hall, view the classical columns and historic court buildings that line the streets. Visit the famous Foley Square, the center for the New York City law and court system. Learn about the original shoreline and topography of lower Manhattan and how the geological history has changed due to the growth of New York City.

HALL TOURS

From Quasars to Quarks: A Walk through the Universe

Sunday, June 4 MH060406
3:00–4:30 p.m.
Portrait Room
Free (reservations required)

Who are our celestial neighbors? Join AMNH Tour Guide Peter Dunne for an extensive tour of the Rose Center's 400-foot-long Scales of the Universe walkway. See the most distant edges of the universe and the smallest components of matter. Learn how many galaxies there are, how Pluto is different from our other solar system neighbors, the size of a single atom, and how a giant asteroid created a 100-mile crater and may even have doomed the dinosaurs.



Sunspot in Active Region 10030 | © Royal Swedish Academy of Sciences

The Sun

Sunday, July 9 MH070906
3:00–4:30 p.m.
Portrait Room
Free (reservations required)

Life on Earth is dependent on the Sun's energy. Journey through the Museum's halls and learn how the Sun was born, its place in the solar system, what makes it shine, and how light is regenerated by deep-sea organisms. Hear stories of ancient cultures that have worshipped the Sun throughout the ages. AMNH Tour Guide Judith Cubbon will explore these fascinating ideas about our powerful cosmic neighbor.

FAMILY & CHILDREN'S PROGRAMS

Father's Day with Lizard Clones and Other Cold-Blooded Creatures

Sunday, June 18 MC061806
10:30 a.m.–2:00 p.m.
Rose Center Classroom
Ages 4–9, each child with one adult
$100/pair; $45 each additional child

Celebrate Father's Day while learning about the largest group of reptiles—lizards and snakes! Discover a scaly friend who is large enough to battle humans, and another species that is solely female and her identical offspring, or clones. Educator Arthur Horan will guide dads and kids through the Hall of Reptiles and Amphibians and the Dzanga-Sangha Rain Forest in the Hall of Biodiversity. Participants will gather information about all these amazing cold-blooded creatures by observing and sketching in expedition journals. After lunch, together with Dad, children will create their own reptile diorama from their observations. Cost includes all materials and lunch.

Iguana in the exhibition Darwin | D. Finnin/AMNH

Asian Leopard and Peafowl diorama | C. Chesek/AMNH

Treasure Hunt: Survival of the Fittest

Sunday, June 11
10:30 a.m.–12:30 p.m.
Free and open to Contributor and higher-level Members
(Recommended for ages 9 and up)
Portrait Room
Reservations required; call 212-769-5606

Back by popular demand! Join us and find out if your family and friends are the fittest and can survive the American Museum of Natural History Treasure Hunt. Test your wits by following clever clues through the Museum halls and dioramas on an adventure of biological discovery. Your detective skills and knowledge of nature will keep you off the bottom of the food chain!

PREVIOUSLY LISTED

Limited space may still be available for these programs.

The River of Doubt

Thursday, May 4 ML050406
7:00 p.m.
Kaufmann Theater
$12 ($15 Non-Members)

Candice Millard examines Theodore Roosevelt's fascinating journey in her book, *The River of Doubt: Theodore Roosevelt's Darkest Journey*, in which she discusses Roosevelt's encounters with poisonous snakes and other hardships of the Amazon.

Whale Watch Weekend

Friday, May 19, 9:00 a.m.–
Sunday, May 21, 7:00 p.m. MO051906
$595 double occupancy
$95 additional for single occupancy

Join Jay Holmes on a trip to historic Provincetown, Massachusetts, featuring whale watching, bird walks, and a New England lobster bake, among other activities. Cost includes transportation by private coach, all meals, boat excursions, admissions, and two nights lodging (double or single occupancy) at the Provincetown Inn Seaside Resort overlooking scenic Provincetown Harbor.

Humpback whale | Provincetown Center for Coastal Studies

Vietnam: A Natural History

Tuesday, May 23 ML052306
7:00 p.m.
Kaufmann Theater
$12 ($15 Non-Members)

Eleanor J. Sterling, Director of the Center for Biodiversity and Conservation, and biodiversity scientists Martha M. Hurley and Le Duc Minh discuss their book *Vietnam: A Natural History* and conserving Vietnam's complex and fragile natural history.

Public Programs

These programs are available to the general public. Call 212-769-5200 for information and tickets.

Darwin in the 21st Century: Science at AMNH

Wednesday, May 3 EL050306
7:00 p.m.
Kaufmann Theater
$15 ($13.50 Members)

Advances in the clarification of evolutionary relationships through DNA sequencing inform the work of scientists in the many Museum research divisions. Museum curators from different departments will provide insights into the work being done in their respective areas.

Adventures in the Global Kitchen: Michael Pollan and Peter Hoffman

Tuesday, May 16 EL051606
7:00 p.m.
Wallach Orientation Center
$15 ($13.50 Members)

Michael Pollan, *Botany of Desire*, and Peter Hoffman, chef and owner of Savoy, discuss corn and its many uses. A book signing for Pollan's new book, *The Omnivore's Dilemma*, will follow.

Mark and Delia Owens: Secrets of the Savannah

Thursday, June 1 EL060106
7:00 p.m.
Kaufmann Theater
$15 ($13.50 Members)

In the 1980s, poachers shot 1,000 elephants a year in the wild, remote North Luangwa Park, Zambia. Mark and Delia Owens, authors of *Cry of the Kalahari*, dodged assassins and dramatically reduced poaching by offering villagers alternative jobs, health care, education, and agriculture. A book signing follows.

The 1906 Earthquake

Tuesday, June 13 EL061306
7:00 p.m.
Kaufmann Theater
$15 ($13.50 Members)

This compelling and timely lecture is introduced by Edmond Mathez, Curator in the Department of Earth and Planetary Sciences, AMNH, and led by Mary Lou Zobak, Senior Research Scientist with the U.S. Geological Survey (USGS) and the Regional Coordinator for the USGS Northern California Earthquake Hazard Program.

Copresented with IRIS/SAA Distinguished Lectureship and the Department of Earth and Planetary Sciences, AMNH.

Edward O. Wilson | Rose Lincoln/Harvard News Office

An Evening with Edward O. Wilson

Wednesday, June 14 EL061406
7:00 p.m.
Kaufmann Theater
$15 ($13.50 Members)

Two-time Pulitzer Prize winner Edward O. Wilson, an entomologist and biologist known for his pioneering work on evolution and sociobiology, converses with Michael Novacek, Senior Vice President and Provost of Science, and Curator in the Division of Paleontology, AMNH. A book signing follows.

FIELD TRIPS

Evening Bat Walks in Central Park

Friday, May 12 EW051206
Friday, May 19 EW051906
7:30 p.m.
$20

Join Danielle Gustafson, Chanda Bennett, and members of the New York Bat Group for a bat walk through Central Park. At dusk, bats leave the warm spaces under city roofs to feed on flying insects.

Please note: You must register at least a week in advance. Enrollment is limited. Bat walks start on the Museum steps at Central Park West at 79th Street. Rain date is Saturday, May 20.

Around Manhattan Island

Tuesday, June 20 EK062006
6:00–9:00 p.m.
$45 ($42.50 Members)
Meet at the Circle Line Plaza, 42nd Street at 12th Avenue.

Celebrate the night before the summer solstice with geologist Sidney Horenstein by taking a clockwise, three-hour cruise around the island of Manhattan to learn about the geology and history that shaped New York.

GLOBAL WEEKENDS

Summer Solstice

Sunday, June 18
11:00 a.m.–5:00 p.m.
Free with Museum admission

Celebrate the upcoming solstice—the beginning of summer and the longest day of the year—with special Sun-related activities and performances for the whole family.

Global Weekends are made possible, in part, by The Coca-Cola Company, the City of New York, and the New York City Council. Additional support has been provided by the May and Samuel Rudin Family Foundation, Inc., the Tolan Family, and the family of Frederick H. Leonhardt.

Short-faced fruit bat, eating fruit | Fenton, M. Brock 1992, from *Bats*. Facts on File, Inc., New York

New Minerals and Gems on View

Step into the Guggenheim Hall of Minerals for a glimpse of some newly acquired mineral specimens. The collections of the Department of Earth and Planetary Sciences are used in world-class research and support public displays in the permanent halls. These remarkable new stones have been added to the display in a hexagonal case on an upper level to the left of the entry to the hall.

(upper right) One of the warld's finest specimens of kunzite (the pink- ta lilac-calared variety af spodumene), from Nuristan, Afghanistan. It is highly unusual to find a specimen with five undamaged kunzite crystals in its matrix rack, here quartz and a spray of albite, variety cleavelandite.

(belaw) A beautiful, 3.5-centimeter, hexaganal, raspberry-pink crystal of pezzattaite, the new, rare cesium analague af the mineral beryl and a gem species, from Ambabuta, Madagascar.

(far right) Demantaid garnets, a chramium-rich variety af andradite, as used by Louis Comfort Tiffany ar Carl Fabergé in jewelry, came from Russia. The three pieces here came fram a new source af this green gem in the Kerman Pravince of sauthern Iran.

(abave) Rhadanite is a manganese silicate. Large translucent crystals af this intensely red mineral are rare. This new specimen is from the Lafaite District af Minas Gerais, Brazil.

All phatas by Jamie Newman

A special exhibit, "Minerals from Mogok," in a case to the right of the entry to the hall, presents superb specimens of gem-quality and unexpected minerals from the Mogok Stone Tract of northern Myanmar (Burma), which is legendary for its blood-red rubies and spinels. A variety of ruby specimens surrounds a dazzling 5-carat ruby set in a ring. An array of other minerals includes moonstone, spinel, tourmaline, and a magnificent topaz with a blue tourmaline inclusion, along with descriptions of the different geological environments in which they formed.

Also displayed in this case is a selection of beautiful cut gems from the collection of Robert L. and Marie Saxe, including an extraordinary 40-carat, pear-shaped peridot and a 154-carat Russian beryl. A spectacular black star sapphire, surrounded by 58 diamonds, was donated by Mr. and Mrs. Morton Wachtler.

Black star sapphire

AMERICAN MUSEUM OF NATURAL HISTORY

MUSEUM SHOP

Great Wildlife Gifts!

23" Plush Chimpanzee

28" Plush Elephant

Wildlife Gift Basket

Bring home one of these oversized, plush jungle friends for your young adventurer. Children of all ages will also enjoy our exclusive gift tin filled with jungle treasures.

To place orders, call our Personal Shopper at 1-800-671-7035.

WWW.AMNH.ORG

General Information

HOURS

Museum: Daily, 10:00 a.m.–5:45 p.m.
The Museum is closed Thanksgiving and Christmas.
Space Show: Every half hour, 10:30 a.m.–4:30 p.m.
Research Library: Tuesday–Thursday, 2:00–5:30 p.m.
Hours are subject to change.

ENTRANCES

During Museum hours, visitors may enter through the subway (lower level), Central Park West at 79th Street (second floor), and the Rose Center/81st Street entrances. The Columbus Avenue entrance is open on weekends and holidays. The 77th Street entrance is closed until further notice.

TRANSPORTATION AND PARKING

Subway: B (weekdays) or C to 81st Street;
1 to 79th Street
Bus: M7, M10, M11, or M104 to 79th Street;
M79 to Central Park West
Parking Garage: Open daily, 8:00 a.m.–11:00 p.m.; enter from West 81st Street. Members receive a discounted rate of $10 if entering after 4:00 p.m. To receive this rate, you must have your parking ticket validated at the Security Desk (first floor, Central Park West entrance). For more information, call 212-313-7278.

FOOD SERVICE

Museum Food Court: Daily,
11:00 a.m.–4:45 p.m. (*lower level*)
Café 77: Saturday and Sunday,
11:00 a.m.–4:45 p.m (*first floor*)
Starlight Café: Saturday and Sunday,
11:00 a.m.–4:45 p.m (*first floor*)
Café on 4: Saturday and Sunday,
11:00 a.m.–4:45 p.m (*fourth floor*)
Hours are subject to change.

MUSEUM SHOPS

The following Museum Shops are open during regular Museum hours:
Main Shop (*first and second floors*)
Dinostore (*fourth floor*)
Planetarium Shop (*Rose Center, lower level*)
Cosmic Shop (*Rose Center, second floor*)
Butterfly Shop (*second floor*)
Darwin Shop (*third floor*)
Lizards Shop (*first floor, opens June 24*)
Online Shop (*www.amnh.org*)

PHONE NUMBERS

Museum Information	212-769-5100
Membership Office	212-769-5606
Central Reservations	212-769-5200
Communications	212-769-5800
Development	212-769-5151
Discovery Tours	212-769-5700
Education	212-769-5304
Event & Conference Services	212-769-5350
Library Services	212-769-5400
Member Birthday Parties	212-769-5606
Museum Shop	800-671-7035
Natural History Magazine	646-356-6500
Patrons Circle	212-769-5153
Planetarium Information	212-769-5900
Planned Giving Office	212-769-5119
Volunteer Office	212-769-5566
Web Site	www.amnh.org

www.amnh.org

AMERICAN MUSEUM OF NATURAL HISTORY

You are cordia
the Men

Rotunda.
American Museum of Natural History
Received on: 05-01-06

LIZARDS
ALIVE!

on Friday, June 23, from 5:00 to 8:30 p.m.
Please use the Museum's Roosevelt Rotunda entrance on Central Park West.
Kindly RSVP to the Membership Office at 212-769-5606.

Membership Department
Central Park West at 79th Street
New York, New York 10024-5192
www.amnh.org

rotunda

L. 31 NO. 4 JULY/AUGUST/SEPTEMBER 2006

MEMBERS' NEWSLETTER

0
2
31
4
-Sep
6

AMERICAN MUSEUM OF NATURAL HISTORY

Museum Notes

Veiled chamelean | D. Finnin/AMNH

CURRENTLY ON VIEW

Lizards & Snakes: Alive!

Opens July 1
Gallery 4
Free for Members

Live lizards and snakes are the center of attention in this engaging exhibition that will explore these creatures' remarkable adaptations, including projectile tongues, deadly venom, amazing camouflage, and sometimes surprising modes of movement. Fossil specimens, life-size models, videos, and interactive stations will complement the more than 60 live animals representing 27 species.

Lizards & Snakes: Alive! *is made passible, in part, by grants fram The Dysan Faundatian and the Amy and Larry Rabbins Faundatian.*

Lizards & Snakes: Alive! *is arganized by the American Museum af Natural Histary, New Yark (www.amnh.arg), in callabaratian with the Fernbank Museum af Natural Histary, Atlanta, and the San Diega Natural Histary Museum, with appreciatian ta Clyde Peeling's Reptiland.*

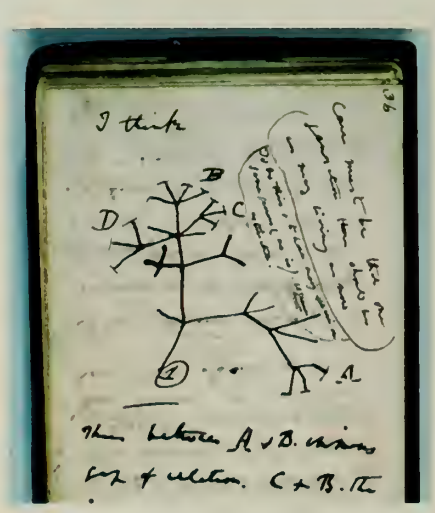
Darwin

Through August 20
Gallery 3
Free for Members

This magnificent exhibition offers visitors a comprehensive, engaging exploration of the life and times of Charles Darwin, whose discoveries, observations, and subsequent insights in the 19th century forever changed the perception of the origin and nature of our own species and launched modern biological science. The exhibition features live animals from the Galápagos Islands, actual fossil specimens collected by Darwin, and an original notebook from his historic voyage aboard the HMS *Beagle*.

The American Museum af Natural Histary gratefully acknawledges The Haward Phipps Faundatian far its leadership suppart. Significant suppart far Darwin *has alsa been pravided by Chris and Sharan Davis, Bill and Leslie Miller, the Austin Hearst Faundatian, Jack and Susan Rudin, and Rasalind P. Walter. Additianal funding pravided by the Carnegie Carparatian af New Yark, Dr. Linda K. Jacabs, and the New York Community Trust—Wallace Special Projects Fund.*

Darwin *is arganized by the American Museum af Natural Histary, New Yark (www.amnh.arg), in callabaratian with the Museum af Science, Bastan; The Field Museum, Chicaga; the Rayal Ontaria Museum, Taranta, Canada; and the Natural Histary Museum, Landan, England.*



A repraductian af Darwin's Tree af Life | © By permissian af the Syndics af Cambridge University Library

Voices from South of the Clouds

Through January 2, 2007
Akeley Gallery

Selected images from the Nature Conservancy's Photovoice project are displayed in this captivating exhibition that reveals the land and the people of China's Yunnan Province. This project puts the cameras in the hands of the villagers themselves, who use photography to chronicle their culture, religion, and daily life, as well as their interaction with the local environment, and whose voices are heard through statements about their work.

The exhibitian is made passible by a generaus grant fram Eastman Kadak Campany.

The presentatian af this exhibitian at the American Museum af Natural Histary is made passible by the generasity af the Arthur Rass Faundatian.

Vital Variety

Ongoing
IMAX Gallery

Beautiful close-up photographs highlight the importance of the immense diversity of invertebrates and their critical role in the survival of humankind.

IMAX MOVIES

Samuel J. and Ethel LeFrak Theater
For showtimes, visit www.amnh.org or call 212-769-5100.

Journey into Amazing Caves

A cave explorer and a microbiologist explore Earth's most extreme underground environments.

IMAX films at the Museum are made passible by Can Edisan.

HAYDEN PLANETARIUM SHOWS

Cosmic Collisions

Journey into deep space—well beyond the calm face of the night sky—to

explore cosmic collisions, hypersonic impacts that drive the dynamic formation of our universe. Narrated by Robert Redford.

Cosmic Collisions *was developed by the American Museum of Natural History, New York (www.amnh.org), in collaboration with the Denver Museum of Nature & Science; GOTO, Inc., Tokyo, Japan; and the Shanghai Science and Technology Museum.*

Made possible through the generous support of CIT.

Cosmic Collisions *was created by the American Museum of Natural History with the major support and partnership of the National Aeronautics and Space Administration, Science Mission Directorate, Heliophysics Division.*

SonicVision

Fridays and Saturdays, 7:30 and 8:30 p.m.

SonicVision is a trip out of this world and into the minds of the universe's most creative digital animators, set to a soundtrack of today's coolest music.

Now, for a limited time only, bring a friend FREE to *SonicVision*. Coupons are available at www.amnh.org.

Presented in association with MTV2 and in collaboration with renowned artist Moby.

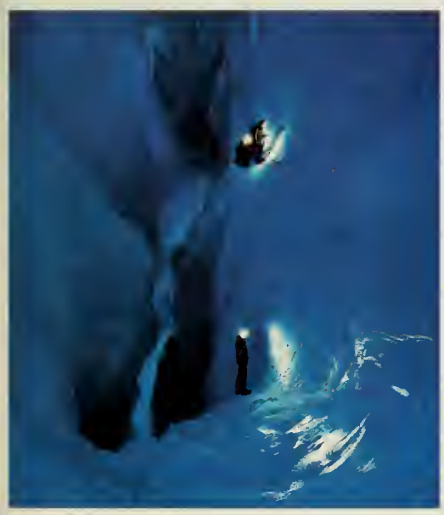
SonicVision *is made possible by generous sponsorship and technology support from Sun Microsystems, Inc.*

AND DON'T MISS...

AMNH Birthday Parties

When you celebrate your child's birthday with a Safari Adventure Treasure Hunt, you'll discover animal fun facts galore. Using rhyming clues and thinking caps, the birthday child, guests, and parents trek past elephants, lions, giraffes, cheetahs, and more to be crowned King or Queen of the Jungle!

Linda Kaye's Partymakers also presents three other festive party themes: Underwater Treasures, Dinosaur Discoveries, and Cosmic Blast-Off. Each party offers a winning combination of education and entertainment. Parties are tailored for children ages 4 and up and are available seven days a week as a benefit to Contributor and higher-level Members only. For more information and to request a date, visit www.partymakers.com or call Linda Kaye's Partymakers at 212-288-7112.



Cavers scaling an ice wall | © MacGillivray Freeman Films

AMNH

Volunteers Wanted!

Fossil Explainers staff the fourth floor to describe specimens, interpret research and exhibition themes, and encourage Museum visitors to discuss vertebrate paleontology. We are accepting applications for this program until July 31, 2006. A required ten-week training course begins in early September. Volunteers are asked to make a two-year commitment to this rewarding program.

To request an application or for more information, please contact Holly Klug, Supervisor of Explainers, at hklug@amnh.org or 212-796-5562.

AMNH Sleepovers

Starting this fall, when the lights go out in the Museum, children 8–12, along with their parents or guardians, can explore the famed fossil halls by flashlight, watch a late-night show, and spend the night dreaming under the sea in the Milstein Hall of Ocean Life below our beloved blue whale.

Cover: *Rafting on the Gataga River* | Wayne Sawchuk

rotunda

ISSN 0194-6110
USPS Permit #472-650
Vol. 31, No. 4, July/August/September 2006

Lewis W. Bernard, *Chairman*
Ellen V. Futter, *President*
Lynn DeBow, *Senior Vice President for Development and Membership*
Rosemary Caulk, *Director of Membership*

Rotunda is published bimonthly, except for a combined issue in July/August/September and a single issue in December, by the Membership Office of the American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192. Phone: 212-769-5606. Web address: www.amnh.org. Museum membership of $55 per year and higher includes a subscription to *Rotunda*. © 2006 American Museum of Natural History. Periodical postage paid at New York, NY, and at additional mailing offices. Postmaster: please send address changes to *Rotunda*, Membership Office, AMNH, at the above address. Printed in the USA.

Yellowstone to Yukon

Grizzly beor fomily | Florian Shulz

Yellowstone to Yukon, an enthralling exhibition of over 40 full-color photographs, opens July 15, 2006, in the IMAX Corridor on the Museum's first floor. On view through January 15, 2007, the exhibition showcases the diverse flora, fauna, and geology of the North American West—from Wyoming to the Yukon Territory—with lush images of breathtaking landscapes and spectacular wildlife. These photographs take viewers on an unrestricted journey through the wilderness as well as the rapidly developing areas of the Yellowstone to Yukon region to explore an ambitious corridor initiative, which connects habitats so that wide-ranging animals can travel unimpeded by human structures and development.

Snowmobile ond coribou trocks | Wayne Sawchuk

The Yellowstone to Yukon corridor is one of the few areas on Earth where all animals native to the region are still found, including cutthroat trout, bison, grizzly bears, trumpeter swans, bighorn sheep, caribou, lynx, wolves, and wolverines. The animals use the landscape on a vast scale, necessitating a proportionately large-scale conservation effort.

The photographs on display illustrate some challenges and current solutions for reconciling human and economic development with wildlife conservation. The exhibition depicts, for example, wild animals that have wondered into suburban yards as well as animals crossing the terrain at road level, which is hazardous to both the animals and drivers attempting to navigate the roadways. Juxtaposed against these scenes of humans' interaction with the wild are images of animals using "wildlife overpasses" constructed for the animals' safe passage, demonstrating marked headway in conservation efforts in the region.

Eleanor Sterling, Director of the Museum's Center for Biodiversity and Conservation (CBC), curates the installation of *Yellowstone to Yukon* at the Museum. The CBC, established at the American Museum of Natural History in 1993, is dedicated to the study and conservation of biological diversity. The survival and protection of global biological resources depends on effective management and policy decisions grounded in rigorous science. The CBC draws on the strengths of the Museum's scientific, education, and exhibition departments to integrate this information into the conservation process and to disseminate it widely.

Herd of pronghorn ontelope | Joel Berger

This exhibition wos developed by the Americon Museum of Noturol History's Center for Biodiversity ond Conservotion in concert with the Yellowstone to Yukon Conservotion Initiotive ond the Wilburforce Foundotion ond is mode possible by their support. Additionol generous support provided by the Woodcock Foundotion.

OPENS JULY 15, 2006

Moose in burnt boreol forest | Wayne Sawchuk

Herpetology at the AMNH

Oversized specimen in the turtle collection in Herpetology | R. Mickens/AMNH

The American Museum of Natural History's Department of Herpetology, founded in 1909 as the Department of Ichthyology and Herpetology (herpetology is the branch of zoology dealing with reptiles and amphibians; ichthyology deals with fishes), has its roots in 19th-century global expeditionary biology. Mary C. Dickerson, author of an influential introduction to the natural history of frogs (*The Frog Book*, 1906, Doubleday), formed the Museum's Herpetology Department as a separate entity ten years later, and it continues today as one of the world's foremost centers of research on reptiles and amphibians. The Department's curators, researchers, and students maintain active research programs in the taxonomy and evolutionary study of worldwide reptiles and amphibians, and in the theory and practice of determining the evolutionary relationships among organisms.

The Museum's collection of amphibians and reptiles, one of the most heavily used herpetological resources in the world, ranks among the world's five largest such collections. The department maintains more than 360,000 specimens representing more than 6,900 species (more than half the world's known species) of frogs, toads, salamanders, alligators, crocodiles, lizards, snakes, turtles, and more, from Africa, Australia, China, Madagascar, Mexico, New Guinea, the Pacific Islands,

Tree frog Phyllomedusa hypochondrialis | T. Grant/AMNH

Pakistan, Panama, South America, the United States, and Vietnam. Some of the tiniest objects in the collection include frog and toad larvae, while the largest is an eight-foot-long *Crocodylus novaeguineae* from Indonesia housed in one of the collection's 126 tanks.

Along with the Department's collection, Museum herpetologists avail themselves of the Museum's molecular laboratories, which house three DNA sequencers as well as a powerful, highly sophisticated parallel-computing facility. The facility enables Museum herpetologists to develop phylogenies, or evolutionary trees, from massive amounts of data that range from fossil traits to DNA sequences.

Mandarin newt (Tylototriton shanjing), *one of the species used by Frost et al. in the largest analysis of amphibian relationships* | Ronald Nussbaum, University of Michigan

The recent research of the Department's curators has yielded a number of significant findings. Darrel R. Frost, Associate Dean of Science for Collections and Curator-in-Charge, studies the evolutionary origin and diversification of reptiles and amphibians and has published extensively on the evolutionary relationships within Iguania. He maintains a comprehensive catalog online of the world's living amphibians, the Amphibian Species of the World database (http://research.amnh.org/herpetology/amphibia), which the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) has adopted as an official reference on amphibian taxonomy.

Frost and his colleagues recently completed the largest analysis ever conducted of the evolutionary relationships among all living amphibians; in fact, it is the largest analysis of its kind of any group of vertebrate animals. The resulting evolutionary tree will provide biologists with a dramatically improved basis and common language for addressing questions about amphibian evolution, life histories, biodiversity, global distribution, conservation, and extinction.

Christopher J. Raxworthy, Associate Dean of Science for Education and Exhibition and Associate Curator, studies the species relationships among chameleons. Most recently, Raxworthy and his colleagues developed a modeling approach that has successfully predicted the geographic distribution of 11 chameleon species in Madagascar. The models, based on satellite data and specimen locality data from diverse

A father Phyllobates bicolor *carrying his tadpole on his back* | T. Grant/AMNH

collections, also correctly predicted the existence of previously unknown areas of chameleon distribution, which included seven species new to science.

The Department's impressive curatorial and scientific support staff, combined with its vast specimen collection and related research facilities, promises a future of significant and fascinating advances in the study of reptile and amphibian evolution and life histories.

Members' Programs

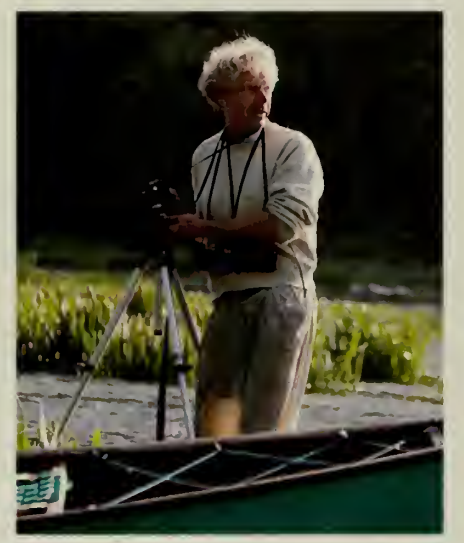
Programs are available to Members only, unless a non-Member's price is given.

LECTURES

The Queen of Fats

Tuesday, October 3 ML100306
7:00 p.m.
Kaufmann Theater
$12 ($15 Non-Members)

Science writer and author Susan Allport will discuss her new book *The Queen of Fats: Why Omega-3s Were Removed from the Western Diet and What We Can Do to Replace Them*. Allport discusses the enormous health consequences of this dietary oversight (which affects not just heart disease but also cancer, diabetes, and obesity) and investigates the discovery, science, and politics of omega-3s in a way that may transform our thinking about what we should be eating. The book makes compelling, even juicy, reading out of fatty acids and double bonds.

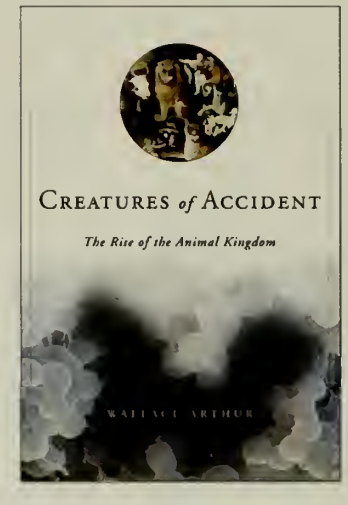


Photographer Tim Palmer | Beth Young

Rivers of America

Tuesday, October 17 ML101706
7:00 p.m.
Kaufmann Theater
$12 ($15 Non-Members)

Rivers flow with peace and with power, they nourish all creatures, and they inspire us with their exquisite beauty. Author, conservationist, and photographer Tim Palmer presents a collection of stunning photographs from his new book *Rivers of America* and describes how we can engage our minds and hearts to understand the true nature of our watery network. He reveals how rivers function in the greater web of life and explains what is now happening to our streams and what people are doing to protect them.



Creatures of Accident: The Rise of the Animal Kingdom

Monday, October 23 ML102306
7:00 p.m.
Kaufmann Theater
$12 ($15 Non-Members)

From a philosophical perspective, the most important aspect of evolution is the rise of complex creatures from simple ones. This "vertical" dimension of evolution has been co-opted by those who proclaim it as evidence of an unseen creator. *Creatures of Accident*, by Wallace Arthur, Professor of Zoology at the National University of Ireland, Galway, attacks that anti-science worldview by building a persuasive picture of how "unaided" evolution produces advanced creatures from simple ones by an essentially accidental process.

EXPEDITIONS

New York Harbor Sail

Saturday, August 19 MO081906
9:00 a.m.–4:00 p.m.
$95

Join geologist Sidney Horenstein aboard the historic *Pioneer*, a 102-foot schooner, and uncover the history of New York City and its surrounding waters. In the morning, journey downtown to the New York Unearthed Urban Archaeology Center for a private tour to see various artifacts excavated from New York City's archaeological sites. Enjoy a new perspective of the New York skyline while learning about marine ecology and the history of the harbor. Please reserve early, as space is limited.

Great Swamp and Raptor Trust Expedition

Saturday, September 16 MO091606
9:00 a.m.–5:00 p.m.
$85

The Great Swamp Refuge in Morris County, New Jersey, provides habitat for more than 244 species of birds and a wide variety of other animals including reptiles and amphibians, as well as wildflowers and other plants.

Mountain scops-owl | P. Sweet/AMNH

For tickets, call 212-769-5200, Monday–Friday, 9:00 a.m.–5:00 p.m., or visit www.amnh.org. Please have ready your credit card, your Membership number, and the program code. All Members' programs require advance registration.

Pioneer | Courtesy of the South Street Seaport Museum

Join Paul Sweet of the Department of Ornithology for a morning hike through the Great Swamp. Then, visit the nearby Raptor Trust, where injured and orphaned birds are rescued, nursed, and returned to the wild. Tour the Trust, listen to a presentation about the conservation of raptors, and watch a demonstration of live birds.

WALKING TOUR

Circling Central Park

Saturday, October 21 MW102106
9:00 a.m.–3:00 p.m.
$45

Spend the day with geologist Sidney Horenstein on a unique walking tour circling the entire perimeter of Central Park. View the spectacular autumn leaves and birds passing through the park on their migratory routes. Discover rock exposures that reveal the 500-million-year-old bedrock that formed when continents collided. See examples in the park of glacial features that were formed some 17,000–20,000 years ago and other geological features reminiscent of Manhattan's original topography.

HALL TOURS

Lizards and Snakes in Nature and Myth

Sunday, August 13 MH081306
3:00–4:30 p.m.
Portrait Room
Free (Reservations required)

Join Museum Tour Guide Eileen Flood as she leads this hall tour focusing on the many fascinating features of snakes, lizards, and reptiles. Learn about their extensive fossil record, biology, and diverse habitats and how ancient cultures from Mexico and Central and South America depicted lizards and snakes in myths, legends, and folklore.

Gabon viper snake in the Mandrill diorama | D. Finnin/AMNH

Going to Extremes

Sunday, September 10 MH091006
Saturday, September 16 MH091606
3:00–4:30 p.m.
Portrait Room
Free (Reservations required)

For mountain climbers, the top of Mount Everest is just about the limit of unaided human endurance. The human body can't survive in such extreme conditions. Yet, birds can soar over the heads of climbers with absolutely no ill effects. Travel to the limits through the Museum halls with Tour Guide Donna Walcavage and learn what happens to our bodies when we go too high, too deep, or to places that are too hot or too cold. Discover why other organisms are able to survive in "extreme" environments.

The Last Ice Age of North America

Saturday, October 14 MH101406
3:00–4:30 p.m.
Portrait Room
Free (Reservations required)

During its 4.6-billion-year history, the Earth has experienced several ice ages. Travel back into prehistory with Tour Guide Berna Villiers as she explores the past using a variety of the Museum's picturesque dioramas and halls. Discover how glaciers shaped the New York landscape and rivers, learn why ice ages occur, and how the last ice age shaped North American landscape, the people that lived here, and the animals they hunted.

CHILDREN'S PROGRAMS

Exploring the Moon

Sunday, October 15 MC101506
10:30 a.m.–12:00 noon (Ages 5–7)
1:30–3:00 p.m. (Ages 8 and up)
Rose Center Classroom
$28

Join educator Stephen Brodbar in an exploration of what is often the most prominent object in the evening sky—the Moon! Participants will visit the Rose Center for Earth and Space and learn about the phases of the Moon,

NASA / © 2004 Fred Espenak

lunar eclipses, and lunar geology. Journey outside to the Ross Terrace and view the striking surface of the Moon using a variety of telescopes. (This workshop is limited to 25 children.)

Mountain Goat diorama | AMNH Photo Studio

Creepy Creature Skeletons and Animals of the Night Holiday Masks

Sunday, October 29 MC102906
10:30 a.m.–12:00 noon (Ages 5–7)
1:30–3:00 p.m. (Ages 8 and up)
Rose Center Classroom
$28

Many critters big and small come out only at night! They are known as nocturnal animals, and have developed special adaptations that help them survive in the dark. Join Educator Amy O'Donnell and create your own creepy creature Halloween mask. Using the Museum's dioramas and skeletal mounts for inspiration, observe the nighttime critters lurking in the halls—owls, lemurs, cats, bats, toads, moths, and many more!

PREVIOUSLY LISTED

Limited space may still be available for these programs.

Exploring Great Gull Island

Thursday, July 20 MO072006
8:00 a.m.–6:00 p.m.
$150

Take advantage of this rare opportunity to journey by boat to the 17-acre Great Gull Island, which is usually open only to researchers and scientists. Cost includes transportation by private coach and chartered boat. This trip is limited to 25 participants.

Biodiversity of the Central Pine Barrens

Saturday, July 22 MO072206
9:00 a.m.–6:00 p.m.
$85

Timothy M. Green, Cultural and Natural Resource Manager at Brookhaven National Laboratory (BNL), will discuss current research projects being conducted at BNL that pertain to conservation, species ecology, and wildlife management. Cost includes transportation by private coach.

Black Rock Forest Weekend

Saturday, August 5, 9:00 a.m.–
Sunday, August 6, 6:00 p.m.
MO080506
$245 per person
$195 per child (Ages 12 and under)

Beautiful Black Rock Forest is an ideal living laboratory for scientists as well as nature buffs wishing to escape the City. Cost includes meals at the lodge, transportation by private coach, one night in the Black Rock Forest Lodge, all gratuities, nature walks, and activities.

TAKE A FRONT SEAT ON A JOURNEY OF DISCOVERY

Behind the American Museum of Natural History's beloved halls, dioramas, and special exhibitions, a scientific staff of over 200 conducts cutting-edge research. For over 135 years, the Museum has explored the far corners of our globe, advancing science in fields from anthropology to astrophysics, and resulting in a collection of more than 30 million specimens and artifacts, one of the world's largest scientific databases, and a frozen tissue collection capable of holding one million DNA specimens.

The LeFrak Theater | D. Finnin/AMNH

The Museum now invites its Members and friends to help perpetuate this tradition of scientific research and education by making a special gift to the Museum to name a Seat for Science and Learning.

Your Seat for Science and Learning gift will support the work of Museum scientists, who last year published over 500 articles in scientific journals and curated acclaimed exhibitions such as *Darwin*.

You may dedicate a seat or bench to anyone you wish to honor or memorialize, or commemorate a special occasion, such as a wedding, birthday, graduation, or anniversary. Seats and benches, which can be named in recognition of gifts from $2,500 to $50,000, are available in many of the Museum's magnificent halls and facilities, including the LeFrak IMAX Theater, the Ross Terrace, the Hayden Planetarium Space Theater, and the Milstein Hall of Ocean Life.

By naming a Seat for Science and Learning you also will support the Museum's New Challenge Campaign to secure its scientific and educational initiatives for future generations. For futher information, please call Anne Shiva in the Development Office at 212-769-5207.

The Hayden Planetarium Space Theater | C. Chesek/AMNH

Public Programs

These programs are available to the general public. Call 212-769-5200 for information and tickets.

Piña Colada | Wayne Curtis

Adventures in the Global Kitchen: Rum

Tuesday, July 11 EL071106
7:00 p.m.
Linder Theater
$20 ($18 Members)

Explore the rise, fall, and return of rum with Wayne Curtis, author of *And a Bottle of Rum*. Learn about grog and rum punch, how Cuban rum altered rum commerce in the late 19th century, and who invented the mai tai. This program includes tastings of rum-based cocktails.

Animal Drawing

Eight Thursdays, September 28–November 16 EW092806
7:00–9:00 p.m.
$160 (Materials not included)
Limited enrollment to 25

The celebrated dioramas, dinosaur skeletons, and other distinctive features of the Museum serve as the setting for an intensive after-hours drawing course with Stephen C. Quinn.

LIZARDS & SNAKES PROGRAMS

Lessons of the Gecko

Tuesday, July 18 EL071806
7:00 p.m.
Linder Theater
$15 ($13.50 Members)

The millions of tiny hairs on a gecko's feet are helping scientists develop new, synthetic, self-cleaning adhesives. Kellar Autumn, Lewis & Clark College, will discuss this research and its potential uses, ranging from nano-surgery to aerospace applications.

Wild, Wild World: Lizards and Snakes

Saturday, July 1
12:00 noon–1:00 p.m. EP070106A
2:00–3:00 p.m. EP070106B
Linder Theater
$8 children; $10 adults

Celebrate the opening of *Lizards & Snakes: Alive!* our new live-animal exhibition featuring lizards and snakes. Reptiland's own "Lizard Man," Clyde Peeling, will introduce some of the lizards and snakes featured in the exhibition and describe their fascinating features.

Wild, Wild World *is made possible, in part, by Mortimer B. Zuckerman.*

Frilled lizard | D. Finnin/AMNH

How I Became a Herpetologist

Sunday, July 9
12:00 noon–1:15 p.m.
Linder Theater
Free with Museum admission

Join the co-curators of the exhibition *Lizards & Snakes: Alive!* Darryl Frost, David Kizirian, and Jack L. Conrad, for captivating stories about how their childhood experiences inspired them to become the scientists they are today.

LIZARD SUNDAYS

Take all three programs and earn a special certificate.

$25 each; $65 for all three (of the same age group)

Lizard Locomotion

Sunday, July 16
11:00 a.m.–12:30 p.m. (Ages 4–6, each child with one adult) EC071606A
1:30–3:00 p.m. (Ages 7–9) EC071606B

Learn the fascinating facts about the ways squamates—legged and legless lizards—get around.

Lizards Who Lunch

Sunday, July 23
11:00 a.m.–12:30 p.m. (Ages 4–6, each child with one adult) EC072306A
1:30–3:00 p.m. (Ages 7–9) EC072306B

A question-and-answer session about these remarkable creatures.

Lizard Lore

Sunday, July 30
11:00 a.m.–12:30 p.m. (Ages 4–6, each child with one adult) EC073006A
1:30–3:00 p.m. (Ages 7–9) EC073006B

Discover legends and myths of lizards and snakes in this participatory workshop.

GLOBAL WEEKENDS

Indigenous Peoples' Day

Saturday, August 12
1:00–5:00 p.m.
Kaufmann and Linder Theaters
Free with Museum admission

Contemporary indigenous fusion group Matou celebrates Indigenous Peoples Day with Native American music combined with Maori chants. The afternoon includes other cultural performances, films, and a conversation with a special guest from the United Nations.

Global Weekends *are made possible, in part, by The Coca-Cola Company, the City of New York, the New York City Council, and the New York City Department of Cultural Affairs. Additional support has been provided by the May and Samuel Rudin Family Foundation, Inc., the Tolan Family, and the family of Frederick H. Leonhardt.*

School Visits at AMNH

Whether for class visits, student enrichment days, or professional development outings, high-school biology teacher Cristina Trowbridge comes to the Museum as often as possible with her students and colleagues from Humanities Preparatory Academy, a public high school on West 18th Street in Manhattan. Humanities Prep is one of the City's New Visions schools and a part of the small schools movement. The Museum's scientific and educational resources provide a great opportunity for students like Trowbridge's to supplement the topics studied in the classroom and to breathe life into the words in their textbooks.

Soon after its opening in November 2005, Trowbridge organized a visit for 36 of her students to see the Museum's exhibition *Darwin*. Trowbridge found that the Educator's Guide she received upon making her reservation explained "*Darwin*'s key concepts and themes of biology, evolution, and natural selection, while also suggesting different angles from which to approach the exhibition" so that each student could find a different aspect of Darwin and his work that he or she could relate to. Using the exhibition map provided in the guide, which is also available online for the public, the students circled two areas of the exhibition that piqued their interest and came armed with a list of questions to investigate, giving them each an area of focus.

Some students were captivated by examples of evolution in Galápagos creatures, while some were intrigued by Darwin's biological study of his own children and others connected his trip around the world to the journeys of their own families and ancestors. Trowbridge is looking forward to this fall when the entire student body and faculty of Humanities Prep will visit the Museum's exhibition *Lizards & Snakes: Alive!* to celebrate the start of a new school year with an up-close look at squamates—both legged and legless lizards.

Studying paleontology in the Museum | D. Finnin/AMNH

During the busiest months of the school year, as many as 100 school buses arrive at the Museum each day, and more than 1,500 school groups are expected to visit *Darwin* during its nine-month run. After receiving educational materials and resources in preparation for their visit, students and teachers are greeted by trained Education Volunteers and Educators who support both independent and guided field trips through the Museum's permanent halls and special exhibitions.

With the help of the Wallach Family Fund for Education, each year the Museum is able to share its science resources with over 300,000 New York City public schoolchildren, many of whom attend schools in some of the city's most economically depressed communities, and who come to the Museum on school visits free of charge. These visits complement their school curricula as the Museum aligns its educational programs with state and national standards.

To learn more about how you might help sponsor public school visits to the Museum, please contact Anne Shiva in the Development Office at 212-769-5207. By supporting our educotionol progroms, you can help improve science literocy on both the local and national levels and prepare our next generation of scientists.

Museum Educotor Chris Benjomin and young leoders | R. Mickens/AMNH

AMERICAN MUSEUM OF NATURAL HISTORY

MUSEUM SHOP

Tie Fashion and Science Together

Choose from these exquisite 100% silk ties, inspired by our special exhibitions and permanent collections:

A. Exclusive Butterfly Tie*
B. Exclusive Darwin Tie*
C. Moon Phases Tie
D. Exclusive Explorer Tie*
E. Solar System Tie
F. Exclusive Scattered *T. rex* Tie*
G. Exclusive Large *T. rex* Tie*

Available in other colors

To place orders call our Personal Shopper at 1-800-671-7035 or shop at www.amnh.org.

General Information

HOURS

Museum: Daily, 10:00 a.m.–5:45 p.m.
The Museum is closed Thanksgiving and Christmas.
Space Show: Every half hour, 10:30 a.m.–4:30 p.m.
Research Library: Tuesday–Thursday, 2:00–5:30 p.m.
Hours are subject to change.

ENTRANCES

During Museum hours, visitors may enter through the subway (lower level), Central Park West at 79th Street (second floor), and the Rose Center/81st Street entrances. The Columbus Avenue entrance is open on weekends and holidays. The 77th Street entrance is closed until further notice.

TRANSPORTATION AND PARKING

Subway: B (weekdays) or C to 81st Street;
1 to 79th Street
Bus: M7, M10, M11, or M104 to 79th Street;
M79 to Central Park West
Parking Garage: Open daily, 8:00 a.m.–11:00 p.m.; enter from West 81st Street. Members receive a discounted rate of $10 if entering after 4:00 p.m. To receive this rate, you must have your parking ticket validated at the Security Desk (first floor, Central Park West entrance). For more information, call 212-313-7278.

FOOD SERVICE

Museum Food Court: Daily,
11:00 a.m.–4:45 p.m. (*lower level*)
Big Dipper Café: Seasonal hours (*lower level*)
Starlight Café: Saturday and Sunday,
11:00 a.m.–4:45 p.m (*first floor*)
Café on 4: Saturday and Sunday,
11:00 a.m.–4:45 p.m (*fourth floor*)
Hours are subject to change.

MUSEUM SHOPS

The following Museum Shops are open during regular Museum hours:
Main Shop (*first ond second floors*)
Dinostore (*fourth floor*)
Planetarium Shop (*Rose Center, lower level*)
Cosmic Shop (*Rose Center, second floor*)
Darwin Shop (*third floor, through August 20*)
Lizards Shop (*first floor*)
Online Shop (*www.omnh.org*)

PHONE NUMBERS

Museum Information	212-769-5100
Membership Office	212-769-5606
Central Reservations	212-769-5200
Communications	212-769-5800
Development	212-769-5151
Discovery Tours	212-769-5700
Education	212-769-5304
Event & Conference Services	212-769-5350
Library Services	212-769-5400
Member Birthday Parties	212-769-5606
Museum Shop	800-671-7035
Noturol History Magazine	646-356-6500
Patrons Circle	212-769-5153
Planetarium Information	212-769-5900
Planned Giving Office	212-769-5119
Volunteer Office	212-769-5566
Web Site	www.amnh.org

www.amnh.org

AMERICAN MUSEUM OF NATURAL HISTORY

LIZARDS AND

Special Early Wee

Rotunda.
American Museum of Natural History
Received on: 06-27-06

Enjoy a private Members-only hour from 9:00 to 10:00 a.m. on Saturday and Sunday mornings in July to see our new special exhibition in Gallery 4.

You MUST enter through the Security Entrance on Central Park West at 79th Street (under the main stairway, down the driveway).

Other halls in the Museum will not open until 10:00 a.m.

You must present your Membership card for this free early admittance.

Membership Department
Central Park West at 79th Street
New York, New York 10024-5192
www.amnh.org

rotunda

OL. 31 NO. 5 OCTOBER/NOVEMBER 2006

MEMBERS' NEWSLETTER

0
2
31
5
.-Nov
06

AMERICAN MUSEUM OF NATURAL HISTORY

Museum Notes

CURRENTLY ON VIEW

The Butterfly Conservatory: Tropical Butterflies Alive in Winter

Opens October 7, 2006
Whitney Memorial Hall of Oceanic Birds
Admission is by timed entry only.
Tickets are $10 for Members and $6 for Members' children.

A return engagement of this popular exhibition includes up to 500 live, free-flying tropical butterflies. Visitors can mingle with the butterflies and view illustrated displays that describe the butterfly life cycle, defense mechanisms, evolution, and conservation.

Frilled lizard | D. Finnin/AMNH

Lizards & Snakes: Alive!

Through January 7, 2007
Gallery 4

Live lizards and snakes are the center of attention in this engaging exhibition that explores these creatures' remarkable adaptations, including projectile tongues, deadly venom, amazing camouflage, and sometimes surprising modes of movement. Fossil specimens, life-size models, videos, and interactive stations complement the more than 60 live animals representing 26 species.

Lizards & Snakes: Alive! *is organized by the American Museum of Natural History, New York (www.amnh.org), in collaboration with Fernbank Museum of Natural History, Atlanta, and the San Diego Natural History Museum, with appreciation to Clyde Peeling's Reptiland.*

Lizards & Snakes: Alive! *is made possible, in part, by grants from The Dyson Foundation and the Amy and Larry Rabbins Foundation.*

Yellowstone to Yukon

Through January 15, 2007
IMAX Corridor

This exhibition of spectacular photographs takes viewers on a journey through the wilderness as well as the rapidly developing areas of the North American West—from Wyoming to the Yukon Territory—to explore one of the most ambitious corridor initiatives to date.

This exhibition was developed by the American Museum of Natural History's Center for Biodiversity and Conservation in concert with the Yellowstone to Yukon Conservation Initiative and the Wilburforce Foundation and is made possible through their support. Additional generous support provided by the Woodcock Foundation.

Vital Variety

Ongoing
IMAX Gallery

Beautiful close-up photographs highlight the importance of the immense diversity of invertebrates and their critical role in the survival of humankind.

IMAX MOVIES

Samuel J. and Ethel LeFrak Theater
For showtimes, visit www.amnh.org or call 212-769-5100.

Ride around the World

Filmed on location in Texas, British Columbia, Mexico, Chile, Argentina, Spain, and Morocco, this breathtaking film captures the history and spirit of the cowboy around the world and across cultures.

IMAX films at the Museum are made possible by Con Edison.

COVER: *Pre-Columbian Panamanian crocodile pendant* | C. Chesek/AMNH

HAYDEN PLANETARIUM SHOWS

Cosmic Collisions

Journey into deep space—well beyond the calm face of the night sky—to explore cosmic collisions, hypersonic impacts that drive the dynamic formation of our universe. Narrated by Robert Redford.

Cosmic Collisions *was developed by the American Museum of Natural History, New York (www.amnh.org), in collaboration with the Denver Museum of Nature & Science; GOTO, Inc., Tokyo, Japan; and the Shanghai Science and Technology Museum.*

Made possible through the generous support of CIT.

Cosmic Collisions *was created by the American Museum of Natural History with the major support and partnership of the National Aeronautics and Space Administration, Science Mission Directorate, Heliophysics Division.*

SonicVision

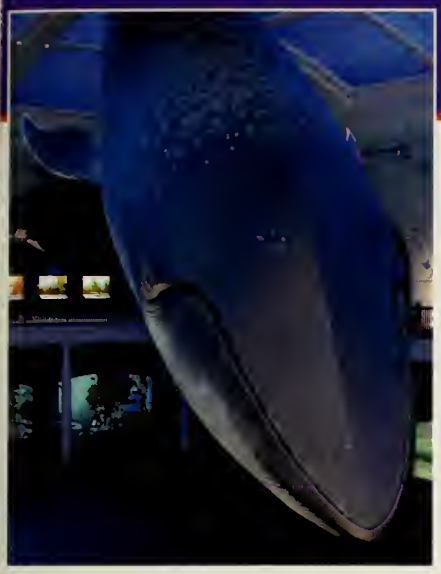
Fridays and Saturdays, 7:30 and 8:30 p.m.

SonicVision is a trip out of this world and into the minds of the universe's most creative digital animators, set to a soundtrack of today's coolest music.

Presented in association with MTV2 and in collaboration with renowned artist Moby.

SonicVision *is made possible by generous sponsorship and technology support from Sun Microsystems, Inc.*

The great gray owl, native to the northern Rocky Mountains | © Daniel J. Cox/NaturalExposures.com



Slumber under the watchful eye of the blue whale. | D. Finnin/AMNH

AND DON'T MISS...

NEW! A Night at the Museum AMNH Sleepovers

Friday, October 20
Saturday, November 18
Per person: $70 ($79 Non-Members, $75 groups)
For more information, call 212-769-5565.
To register, call 212-769-5200.
Pre-registration is required.

Imagine roaming the American Museum of Natural History at night! The lights dim as you head out with your flashlight looking for adventure. You find yourself in the Hall of North American Mammals, staring down a herd of wild buffalo. Climb some stairs and you're in the Age of the Dinosaurs, standing beneath a 65-million-year-old *T. rex*. Travel to the outer reaches of the cosmos in the Hayden Planetarium, where you'll witness entire galaxies colliding. Your night of adventure comes to a quiet close beneath the sea in the serene Milstein Hall of Ocean Life, where you'll camp out under a 94-foot-long blue whale.

Bring your sleeping bag and have the night of your life! These Night at the Museum previews are a unique opportunity for children ages 8–12 and their parents to experience the Museum like never before. Includes an evening snack and light breakfast.

AMNH Birthday Parties

When you celebrate your child's birthday with a Safari Adventure Treasure Hunt, you'll discover animal fun facts galore. The birthday child, guests, and parents trek past elephants, lions, giraffes, cheetahs, and more to be crowned King or Queen of the Jungle!

Linda Kaye's Partymakers also presents three other festive party themes: Underwater Treasures, Dinosaur Discoveries, and Cosmic Blast-Off. Each party offers a winning combination of education and entertainment. Parties are tailored for children ages 4 and up and are available seven days a week as a benefit to Contributor and higher-level Members only. For more information and to request a date, visit www.partymakers.com or call Linda Kaye's Partymakers at 212-288-7112.

R. Mickens/AMNH

Starry Nights Live Jazz

Friday, October 6: *Norman Hedman's Tropique (second set broadcast live)*
Friday, November 3: *Please visit www.amnh.org for lineup.*
Sets at 6:00 and 7:30 p.m.
$12 Members ($15 Non-Members); under 16 free
Doors open at 5:00 p.m.
Seating is limited and is on a first-come, first-served basis.

The first Friday of every month brings some of the world's greatest live jazz to the Rose Center's Cullman Hall of the Universe. Longtime favorites and up-and-coming talents perform two hourlong sets, at 6:00 and 7:30 p.m., in one of New York City's boldest architectural settings. Every other month, the second set is broadcast live on WBGO Jazz 88.3 FM. A mouth-watering assortment of tapas and beverages including sangria is available for purchase under the spectacular Hayden Planetarium Sphere.

MEMBERS' EXTRA DISCOUNT DAYS

Saturday and Sunday, December 2 and 3
In all Museum Shops (See back cover for a complete listing.)

For two special days, the Museum Shops will offer a 20% discount for Members instead of the usual 10% discount. It's the perfect opportunity to stock up on elegant, entertaining, and educational holiday gifts.

Save a Tree

The current issue of Rotunda is now available online! Download it at www.amnh.org. If you'd like to stop receiving paper copies, please email members@amnh.org.

rotunda

ISSN 0194-6110
USPS Permit #472-650
Vol. 31, No. 5, October/November 2006

Lewis W. Bernard, *Chairman*
Ellen V. Futter, *President*
Lynn DeBow, *Senior Vice President for Development and Membership*
Rosemary Caulk, *Director of Membership*

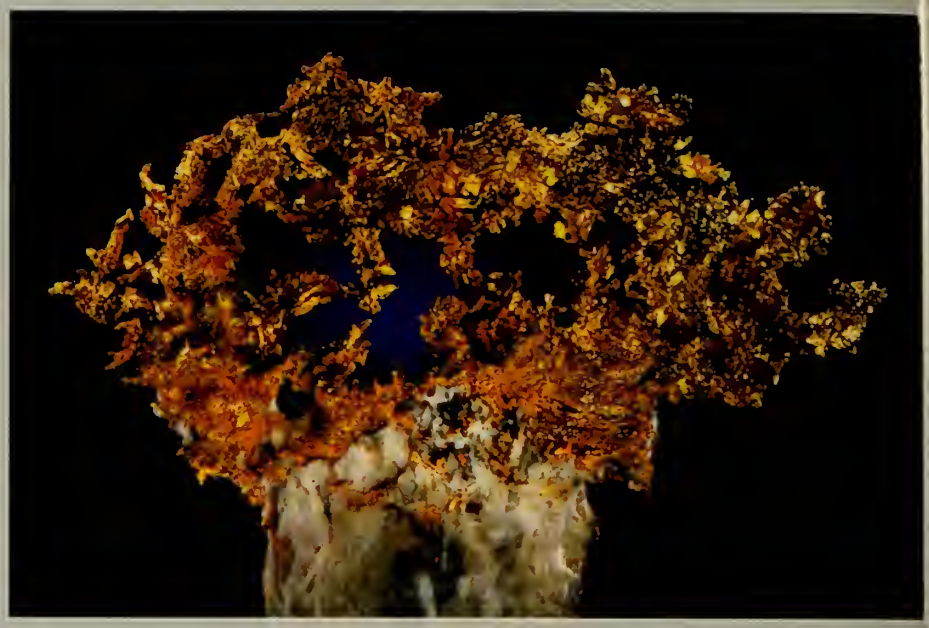
Rotunda is published bimonthly, except for a combined issue in July/August/September and a single issue in December, by the Membership Office of the American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192. Phone: 212-769-5606. Web address: www.amnh.org. Museum membership of $70 per year and higher includes a subscription to *Rotunda*.

© 2006 American Museum of Natural History.
Periodical postage paid at New York, NY, and at additional mailing offices. Postmaster: please send address changes to *Rotunda*, Membership Office, AMNH, at the above address. Printed in the USA.

Gold Opens November 18, 2006 • Gallery 3

Gold tells the fascinating story of this precious metal and symbol of wealth, beauty, and power. A gorgeous and glittering exhibition, it explores the enduring allure of gold as well as its scientific properties. Continuing a series the Museum has developed on precious and semiprecious materials, such as *Amber: Window to the Past*, *Nature of Diamonds*, and *Pearls*, *Gold* features extraordinary geological specimens and cultural objects that illuminate the currency of ancient civilizations, the gold rushes that shaped the world, contemporary culture, and more.

Visitors experience firsthand the splendor of the finest gold objects on Earth—both natural specimens and human artifacts—and learn how gold is located, mined, and processed. Treasures on display include the first gold coins minted in ancient Lydia (now Turkey), a reproduction of a 3,000-year-old map that pinpoints the location of regional gold deposits in ancient Egypt, and gleaming pre-Columbian jewelry and other objects from the Museum's own collection. Compelling modern objects include Emmy awards, Grammy awards, and best-selling gold records, illustrating the powerful hold that gold continues to have on our imagination.



Farmed from superheated gold-bearing water, this crystallized specimen was found in Eagle's Nest, California. | J. Beckett/AMNH

Jewelry similar to this pair of gold earrings is frequently depicted in scenes of everyday life on Greek vases and sculptures from the late 4th to the 2nd century B.C.E. | C. Chesek/AMNH

Throughout the exhibition, visitors have numerous opportunities to explore the unique characteristics of gold, discovering the physical properties that make it invaluable for technological uses in everything from telephones and televisions to satellite circuitry and astronauts' visors.

***Gold* is divided into six sections:**

- **Aurum Naturae** (Latin for "natural gold") introduces visitors to gold as an element, exploring its mineralogy and geology. Found everywhere on the planet with the exception of Antarctica, gold can be mined from almost any type of rock. Marvelous specimens in this section include crystallized gold, a rare form found naturally. Featured pieces include the the 2.2-pound Newmont gold mass from the Museum's own outstanding collection of gems and minerals; the famous 1.5-pound La Trobe Nugget on loan from the Natural History Museum of London; and Tom's Baby, an 8-pound nugget discovered in 1887, from the Denver Museum of Nature and Science. A sample of gold the size of a pencil eraser embedded in a 220-pound boulder will demonstrate how much rock must be processed to recover even the smallest amount of gold.

- **Unique Properties and Mining** explores the scientific characteristics of gold, the mining process, and the technological uses of gold. Gold is an extremely dense, malleable, and conductive metal. To visualize the metal's remarkable malleability, visitors can enter a room lined entirely with just three ounces of gold. Gold is one of the few metals that occurs in nearly pure, or native, form. Numerous native specimens will be on display, as will examples of various gold ores and rare gold crystals from around

This 18-karat-gold "Gold" brooch was designed by Paloma Picasso for Tiffany & Co. in 1988. | © Tiffany & Co. Archives

the world. This section also focuses on gold rushes throughout history.

• **The Golden Age** highlights the mineral's place in history, culture, art, and fashion. From ancient times to the present day, this glittering metal has been used in apparel, adornment, religious artifacts, and more. Some prized items from around the world include a pendant in the shape of a mask from Ghana, 13th-century earrings from Iran, a 6th-century Peruvian vase, a gilded Buddha from Tibet, and a Fabergé egg with delicate gold scrollwork. More modern pieces include a vanity box made by Cartier for Mary Pickford, a necklace made of gold coins from the jeweler Bulgari, and a brooch designed by Paloma Picasso for Tiffany and Company.

• In **Lost and Found**, visitors discover a treasure trove of gold bars, a massive salver, jewelry, and coins. These prizes were recovered from sunken Spanish galleons dating from the 17th and 18th centuries and from the American mail steamship the SS *Central America*. When the *Central America* went down in a storm off the Carolinas in 1857, with its cargo of tons of gold bars, coins, and dust from the gold fields of California, it caused a financial crisis in New York.

• **The Gold Standard** examines how different countries have based their economies on this precious metal. Ancient coins from China, Greece, and Rome are on display, as is a 1907 United States 20-dollar gold coin, considered one of the most beautiful gold coins ever minted. In addition, 27 gold bars weighing up to 30 pounds each are on loan from the U.S. Treasury Department courtesy of the U.S. Federal Reserve Bank of New York. Various methods of producing gold bars are demonstrated.

• In **Golden Achievement**, contemporary symbols made of gold include the Kentucky Derby trophy, a Grammy award, two Emmy awards, and Italy's preeminent film prize, the David Di Donatello award.

The exhibition is curated by James D. Webster, Chair and Curator in the Division of Earth and Planetary Sciences, with the advisement of Charles Spencer, Curator in the Division of Anthropology. It is designed and produced by the American Museum of Natural History's Department of Exhibition under the direction of David Harvey, Vice President for Exhibition.

Gold is organized by the American Museum of Natural History, New York, (www.amnh.org), in cooperation with The Houston Museum of Natural Science.

This exhibition is proudly sponsored by The Tiffany & Co. Foundation.

This elaborate gold bell was crafted with the lost-wax process more than 500 years ago, probably by the Mixtecs in what is now Veracruz, Mexico. | C. Chesek/AMNH

From Peru, golden keros cups, an important part of Inka political ceremonies, and an Inka necklace of 13 hollow gold beads | D. Finnin/AMNH

A Tiffany baby rattle with mother-of-pearl handle, manufactured around 1890, features 18-karat "chased" gold, a technique that creates a high-relief decoration. | © Tiffany & Co. Archives

Byzantine gold Histamenon Nomis coin (1028–1034 C.E.) with a depiction of Christ enthroned and, on the other side, emperor Romanus III being crowned by the Virgin Mary | C. Chesek/AMNH

Members' Programs

Programs are available to Members only, unless a non-Member's price is given.

James Lovelock | Sandy Lovelock

LECTURES

The Revenge of Gaia

Tuesday, November 14 ML111406
7:00 p.m.
Kaufmann Theater
$12 ($15 Non-Members)

With Hurricane Katrina leading the way, 2005 set new records for droughts, heat waves, and hurricane activity around the country and across the globe. Best-selling author James Lovelock—originator of the influential Gaia theory—provides a look at our imminent global crisis in his book *The Revenge of Gaia*. His theory conceives of the Earth, including the atmosphere, oceans, biosphere, and upper layers of rock, as a single living super-organism, regulating its internal environment much as an animal regulates its body temperature and chemical balance. Lovelock discusses the stress currently placed on the planetary system, how humans are contributing to it, what the consequences will be, and what humankind can do to rescue itself and Earth.

I, Woz

Tuesday, November 28 ML112806
7:00 p.m.
Kaufmann Theater
$12 ($15 Non-Members)

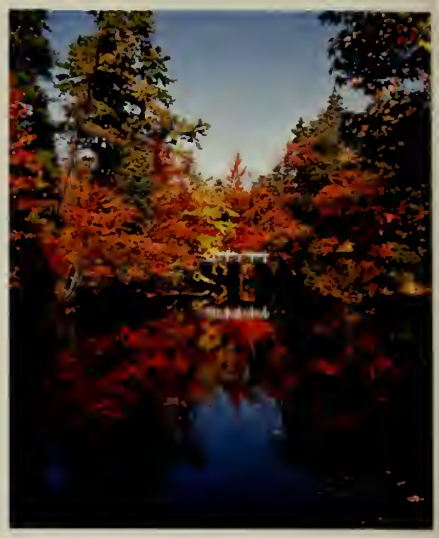
After 25 years of avoiding the public eye, Steve Wozniak, who changed the face of personal computing forever as cofounder and inventor of Apple, tells the story of Apple's early days in his autobiography *I, Woz*. He discusses his sources of inspiration for the Apple II, his ideas on engineering and entrepreneurship, his relationship with Steven Jobs, and all that he has done since leaving Apple.

To the Ends of the Earth

Tuesday, December 5 ML120506
7:00 p.m.
Kaufmann Theater
$12 ($15 Non-Members)

National Geographic photographer Gordon Wiltsie has climbed Himalayan mountains, mushed dogs on the frozen Arctic Ocean, skied in Antarctica, and hacked through the Amazon jungle to photograph the most remote reaches of the planet. In his book *To the Ends of the Earth: Adventures of an Expedition Photographer*, Wiltsie discusses his 30-year career and the many great modern explorers he has accompanied on these incredibly challenging climbs and epic adventures. Listen to the real life stories of an explorer—from the thrill of summiting a virgin peak or the fear of not surviving a storm to the humorous and unexpected everyday moments of life on the edge.

A hanging camp about 1,200 feet above the ledge visible below at Great Sail Peak, Baffin Island, Canada, 1998 | Gordon Wiltsie



New Jersey Pine Barrens, Batsto River Fall | Michael Hogan/hoganphoto.com

EXPEDITIONS

Exploring New Jersey's Pine Barrens

Saturday, November 11 MO111106
9:00 a.m.–6:00 p.m.
$85

Wayne Cahilly, a horticulturist with the New York Botanical Garden, leads this exploration of the New Jersey Pine Barrens, a region with a diversity of plant species greater than any other part of the Atlantic coastal plain—including some that are rare or endangered—along with fascinating geology and a rich cultural history. Visit woodland savannas covered in huckleberry shrubs; pygmy forests that rarely exceed 12 feet in height; sphagnum peat bogs, sundews, and pitcher plants; and the third-largest cranberry-producing region in the United States. Bring your own brown bag lunch to enjoy at Batsto Village on the way. Fee includes transportation by private coach.

HALL TOURS

Earth as a Peppercorn

Saturday, November 4 MH110406
3:00–4:30 p.m.
Portrait Room
Free (reservations required)

It is difficult to fathom the dimensions of our solar system, where planets are relatively small, and the distances between them vast. Step outside the Museum to see a model whose scale is true to size and distance: the planet-walk is a 1,000-yard scale model of the solar system—with Earth the size of a peppercorn—that was devised by astronomer Guy Ottewell. Museum Tour Guides will lead this outdoor journey of discovery through our solar system and beyond!

Gold, the Noble Mineral

Saturday, December 9 MH120906
3:00–4:30 p.m.
Portrait Room
Free (reservations required)

Gold has been a symbol of power, wealth, and success in many cultures around the world throughout history. Join Museum Tour Guide and mineral enthusiast Norman Rothwell for a tour focused on this highly prized mineral, one of the noble metals. Learn about the unique physical properties, such as extreme malleability, reflectivity, and conductivity that make it invaluable for many technological uses. Discover the cultural stories linked with the ancient golden treasures in the Museum, including a look at the temporary display of California gold from the foothills of the Sierra Nevada region in the Guggenheim Hall of Minerals.

California gold, courtesy of the Mineral Trust | J. Newman/AMNH

CHILDREN'S PROGRAMS

Rocking with Geology

Sunday, November 12
10:30 a.m.–12:00 noon (ages 5–7)
MC111206A
1:30–3:00 p.m. (ages 8 and up)
MC111206B
Rose Center Classroom
$28

Since the beginning of time, the Earth has been rocking, rolling, and shaking—changing the land into what we see today and affecting our everyday lives. Join educator Arthur Horan in this hands-on workshop about the many minerals, gems, and rocks contained in the Earth's layers. Aspiring geologists will identify and examine rocks and mineral specimens in their natural forms, learn how magnets work, locate their birthstone in the Museum halls, and discover how they were used in ancient cultures and distant lands.

Golden Dragons

Sunday, November 19
10:30 a.m.–12:00 noon MC111906A
1:30–3:00 p.m. MC111906B
Rose Center Classroom
(Ages 5 and up, each child with one adult)
$50/pair

The Komodo dragon is the world's biggest and fiercest lizard. Its long, forked tongue and scaly skin made this amazing animal a frequent fixture in myths and legends throughout the ages. Journey through the special exhibition *Lizards and Snakes: Alive!* with Tour Guide June Myles to hear these stories and observe some of the Komodo's many reptile relatives—big and small—in their habitats. Then, back in the classroom, create and decorate your own 3-D golden dragon model using a variety of gold paint and paper.

Encyclopedia Prehistorica: Sharks and Other Sea Monsters

Sunday, December 3 MC120306
2:00 p.m.
Linder Theater
$12 Members ($15 Non-Members)

Pop-up experts Robert Sabuda and Matthew Reinhart are back to present

Encyclopedia Prehistorica: Sharks and Other Sea Monsters | Copyright © 2006 by Robert Sabuda and Matthew Reinhart. Reproduced by permission of the publisher, Candlewick Press, Inc., Cambridge, MA.

their second 3-D book from the Encyclopedia Prehistorica series, *Sharks and Other Sea Monsters*. Before dinosaurs roamed the land, massive prehistoric sharks, giant sea scorpions, and colossal squid cruised the ancient oceans. See these amazing predators spring out in a full-page flourish of claws, spikes, and teeth! The authors/artists will discuss their creative collaboration on this book and the art of paper construction, as well as explore the awesome prehistoric underwater world and the creatures that inhabited it.

PREVIOUSLY LISTED

Limited space may still be available for these programs.

Rivers of America

Tuesday, October 17 ML101706
7:00 p.m.
Kaufmann Theater
$15 ($12 Members, students, senior citizens)

Author, conservationist, and photographer Tim Palmer presents a collection of stunning photographs from his new book Rivers of America and describes how rivers function in the greater web of life and explains what is now happening to our streams and what people are doing to protect them.

Creatures of Accident: The Rise of the Animal Kingdom

Monday, October 23 ML102306
7:00 p.m.
Kaufmann Theater
$12 Members ($15 Non-Members)

From a philosophical perspective, the most important aspect of evolution is the rise of complex creatures from simple ones. This "vertical" dimension of evolution has been co-opted by those who proclaim it as evidence of an unseen creator. Wallace Arthur, National University of Ireland, Galway, attacks that anti-science worldview by building a persuasive picture of how "unaided" evolution produces advanced creatures from simple ones by an essentially accidental process.

Creepy Creature Skeletons and Animals of the Night Holiday Masks

Sunday, October 29
10:30 a.m.–12:00 noon (ages 5–7)
MC102906A
1:30–3:00 p.m. (ages 8 and up)
MC102906B
Rose Center Classroom
$28

Many critters big and small come out only at night.

Join educator Amy O'Donnell and observe the nocturnal critters lurking in the Museum's halls, such as owls, lemurs, bats, toads, and many more. Then, create your own "creepy creature" Halloween mask.

Dave Grover and the Big Bear Band perform at the Members' Family Holiday Party | D. Finnin/AMNH

MEMBERS' FAMILY HOLIDAY PARTY

Friday, December 1 MP120105
5:00–8:00 p.m.

Join us in the Milstein Hall of Ocean Life for holiday crafts and live entertainment. Children will sing along with award-winning trio David Grover and the Big Bear Band as they perform holiday songs.

The event is free and open to Family and higher-level Members only. Members must register in advance by calling 212-769-5200.

The New Challenge: Meeting the Demands of Science and Society

A Family's Special Bond with AMNH

As a child, visiting the American Museum of Natural History was a beloved New York tradition for David Netto and his family: "I went to the Museum weekly with my mother. I would have gone more often if I could—I was fascinated by the dinosaurs—but my mom was kind enough to indulge me weekly."

Mr. Netto honored this special relationship with the Museum by sponsoring the restoration of the Sperm Whale and Giant Squid diorama in the Milstein Hall of Ocean Life and naming it in his mother's memory. "The evocation of the deep sea in the diorama was incredibly powerful to me as a child, and its presentation beautifully combines both science and theater. I selected that diorama since it was something that my mom and I had experienced together." Mr. Netto carries on his family's tradition by rediscovering the Museum through the eyes of his young daughters, Kate and Madeline, who especially enjoy the Milstein Hall, the Butterfly Conservatory, and the beloved dinosaur fossil halls.

Mr. Netto and his wife, Liz, are also members of the Museum's Patrons Circle, and have participated in the Museum's *Seats for Science and Learning Program*, which provides support for Museum scientists and the Department of Education's important efforts to make their research and discoveries accessible to millions of children and adults. There are many opportunities at all gift levels to join the Netto family in supporting the Museum's fundraising campaign, The New Challenge. If you would like information on naming a diorama, becoming a member of the Patrons Circle, or participating in the *Seats for Science and Learning Program*, please call Anne Shiva in the Development Office at 212-769-5207.

David Netto | D. Finnin/AMNH

Thirteenth Annual Family Party

Andrew and Catherine B. Sidamon-Eristoff with their children George and Andrew | C. Chesek/AMNH

A Benefit Event to Support the American Museum of Natural History

Tuesday, October 24
5:00–7:30 p.m.

Enjoy a fun-filled adventure for children of all ages, with dinosaur discoveries; live mammals, reptiles, and butterflies; hands-on activities; science experiments; microscope mania; and so much more!

Chairmen: *Devon Briger, Meera Gandhi, Liz Lange, Alexandra Lebenthal, Simone Mailman, Catherine B. Sidamon-Eristoff, Kelly Behun Sugarman*

For more information, please call 212-496-3495 or visit www.amnh.org/familyparty.

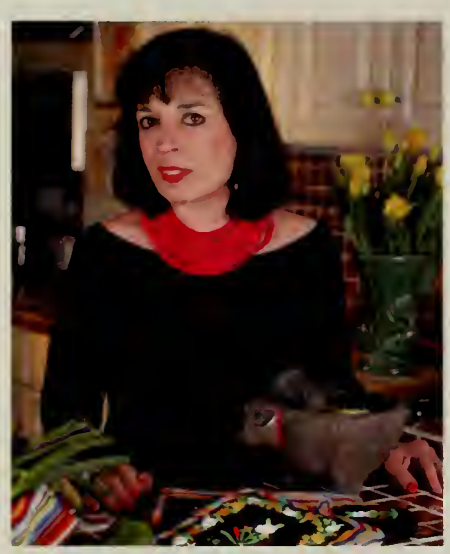
Public Programs

These programs are available to the general public. Call 212-769-5200 for information and tickets.

Moonlight Meditation: Dancing with the Universe

Sunday, October 22 EW102206
6:30–8:30 p.m.
Cullman Hall of the Universe
$30 ($27 Members)

Join a guided meditation and discussion led by Nan Lu, O.M.D., founder of the Traditional Chinese Medicine World Foundation (www.tcmworld.org).



Courtesy Zarela Martinez

Adventures in the Global Kitchen: Day of the Dead with Zarela Martinez

Thursday, November 2 EC110206
7:00 p.m.
Linder Theater
$18 ($15 Members)

Share taste treats of the beloved Mexican holiday with this celebrity restaurateur and author.

Margaret Mead Film & Video Festival

Wednesday–Sunday, November 8–12

Celebrate the 30th anniversary of this renowned annual showcase of the best of international documentary with screenings, discussions, and panels. For complete listings, visit www.amnh.org/mead.

Gold: Opening Day Presentations

Saturday, November 18
12:00 noon–1:00 p.m.
Kaufmann Theater
Free with Museum admission

Explore the science and culture behind one of the world's most prized natural resources with AMNH scientists Jim Webster and Charles Spencer. (Suitable for adults and children ages 9 and up.)

Gold is organized by the American Museum of Natural History, New York (www.amnh.org), in cooperation with The Houston Museum of Natural Science.

Art/Sci Collision DNA: Not Merely the Secret of Life

Tuesday, November 28 ML112806
7:00 p.m.
Kaufmann Theater
$15 ($12 Members)

Nadrian C. Seeman, New York University, will explain how he finds connections between the molecular structure of DNA and Roman mosaics, Islamic art, and M. C. Escher's drawings.

GLOBAL WEEKENDS: LIZARDS AND SNAKES

Kaufmann Theater
Free with Museum admission

The Legend of the White Snake

Sunday, October 22
1:00 p.m. and 3:00 p.m.

Watch a colorful performance by the Qi Shu Fang Chinese Opera Company of "The Legend the White Snake," the story of a snake spirit's adventure on Earth.

Snake and Lizard Tales of India

Saturday, October 28
1:00 p.m. and 3:00 p.m.

Enjoy two legendary Indian short stories—one involving a mythic cobra; the other, an iguana—as presented in the expressive southern Indian dance style *Bharata Natyam*.

Global Weekends *are made possible, in part, by The Coca-Cola Company, the City of New York, the New York City Council, and the New York City Department of Cultural Affairs. Additional support has been provided by the May and Samuel Rudin Family Foundation, Inc., the Tolan Family, and the family of Frederick H. Leonhardt.*

LIZARDS & SNAKES LECTURES

Kaufmann Theater
$15 each; $25 for the series
($13.50/$22 for Members)

Snake Venoms

Thursday, October 12 EL101206
7:00 p.m.

Discover how potent toxins are used in medications and as diagnostics in clinical medicine. Note: this program includes live snakes.

Eastern green mamba | D. Finnin/AMNH

Protecting Iguanas

Thursday, October 26 EL102606
7:00 p.m.

Meet a live iguana and learn about ongoing recovery programs, including those to save the Jamaican iguana, the most endangered lizard on Earth.

DR. NEBULA'S LABORATORY

Voyage through the Stars

Saturday, October 28 RC102806
9:00–10:00 a.m.
Hayden Planetarium Space Theater
$8 children; $10 adults
(Enter through the 79th Street security entrance.)

In this interactive science theater program for families with children ages 4 and up, lab assistant Scooter tracks Darwin's voyage of the *Beagle* while demonstrating how ancient people navigated by the stars.

Give a Gift for All Seasons: AMNH Membership

Your friends and relatives can enjoy all the benefits of Membership, including complimentary Museum general admission and special exhibition tickets, a year's subscription to *Natural History* magazine and *Rotunda*, invitations to Members' previews, and discounts in Museum Shops and restaurants. Choose the Membership level and we'll do the rest. As a special holiday bonus, we'll include in the gift the new *Windows on Nature* calendar (a $14.95 value).

Special offer expires December 31, 2006. Not valid for Members renewing their own Memberships.

1. Please send a one-year Membership at the category indicated to the person below:

❑ Individual $70 ❑ Dual $90 ❑ Family $115 ❑ Contributor $195

Recipient's Name _____

Street _____

City _____ State _____ Zip Code _____

2. Please send a one-year Membership at the category indicated to the person below:

❑ Individual $70 ❑ Dual $90 ❑ Family $115 ❑ Contributor $195

Recipient's Name _____

Street _____

City _____ State _____ Zip Code _____

Your Name _____

Street _____ City _____ State _____ Zip Code _____

❑ Enclosed is my check for $ _____ **OR**

❑ Please charge my: ❑ Visa ❑ MasterCard ❑ American Express

Card Number _____ Exp. Date _____ Signature _____

A New York Holiday

Christmas in New York This ornate pop-up book showcases holiday traditions that originated in New York, from lighting the tree in Rockefeller Center to watching the ball drop on New Year's Eve.

Brighten up your holidays with special gifts, ornaments, and greeting cards from our Museum Shop.

To place an order, call our Personal Shopper at 1-800-671-7035 or shop at amnhshop.com. Allow 7–10 days for delivery.

Free Gift

Bonus Bath Confetti set, yours free with any $30 purchase (a $14 value)

***T. rex* in Snow**
Inside Greeting: *Happy Holidays!*

Choose from our exclusive hand-beaded New York ornaments: our own dinosaur, taxi cab, or Empire State Building

MUSEUM SHOPS

AMERICAN MUSEUM of NATURAL HISTORY

WWW.AMNH.ORG

General Information

HOURS
Museum: Daily, 10:00 a.m.–5:45 p.m.
The Museum is closed Thanksgiving and Christmas.
Space Show: Every half hour, 10:30 a.m.–4:30 p.m.
Research Library: Tuesday–Thursday, 2:00–5:30 p.m.
Hours are subject to change.

ENTRANCES
During Museum hours, visitors may enter through the subway (lower level), Central Park West at 79th Street (second floor), and the Rose Center/81st Street entrances. The Columbus Avenue entrance is open on weekends and holidays. The 77th Street entrance is closed until further notice.

TRANSPORTATION AND PARKING
Subway: B (weekdays) or C to 81st Street; 1 to 79th Street
Bus: M7, M10, M11, or M104 to 79th Street; M79 to Central Park West
Parking Garage: Open daily, 8:00 a.m.–11:00 p.m.; enter from West 81st Street. Members receive a discounted rate of $10 if entering after 4:00 p.m. To receive this rate, you must have your parking ticket validated at the Security Desk (first floor, Central Park West entrance). For more information, call 212-313-7278.

FOOD SERVICE
Museum Food Court: Daily, 11:00 a.m.–4:45 p.m. (*lower level*)
Starlight Café: Saturday and Sunday, 11:00 a.m.–4:45 p.m (*first floor*)
Café on 4: Saturday and Sunday, 11:00 a.m.–4:45 p.m (*fourth floor*)
Hours are subject to change.

MUSEUM SHOPS
The following Museum Shops are open during regular Museum hours:
Main Shop (*first and second floors*)
Dinostore (*fourth floor*)
Planetarium Shop (*Rose Center, lower level*)
Cosmic Shop (*Rose Center, second floor*)
Butterfly Shop (*second floor, opens October 7*)
Gold Shop (*third floor, opens November 18*)
Lizards & Snakes Shop (*fourth floor*)
Online Shop (*www.amnh.org*)

PHONE NUMBERS

Museum Information	212-769-5100
Membership Office	212-769-5606
Central Reservations	212-769-5200
Communications	212-769-5800
Development	212-769-5151
Discovery Tours	212-769-5700
Education	212-769-5304
Event & Conference Services	212-769-5350
Library Services	212-769-5400
Member Birthday Parties	212-769-5606
Museum Shop	800-671-7035
Natural History Magazine	646-356-6500
Patrons Circle	212-769-5153
Planetarium Information	212-769-5900
Planned Giving Office	212-769-5119
Volunteer Office	212-769-5566
Web Site	www.amnh.org

www.amnh.org

AMERICAN MUSEUM OF NATURAL HISTORY

Rotunda.
American Museum of Natural History
Received on: 10-11-06

Please join us for
the gorgeous and g

GOLD

on Friday, November 17, from 6:00 to 8:30 p.m.

Please use the main entrance (the Rotunda) on Central Park West at 79th Street.

Kindly RSVP to the Membership Office at 212-769-5606.

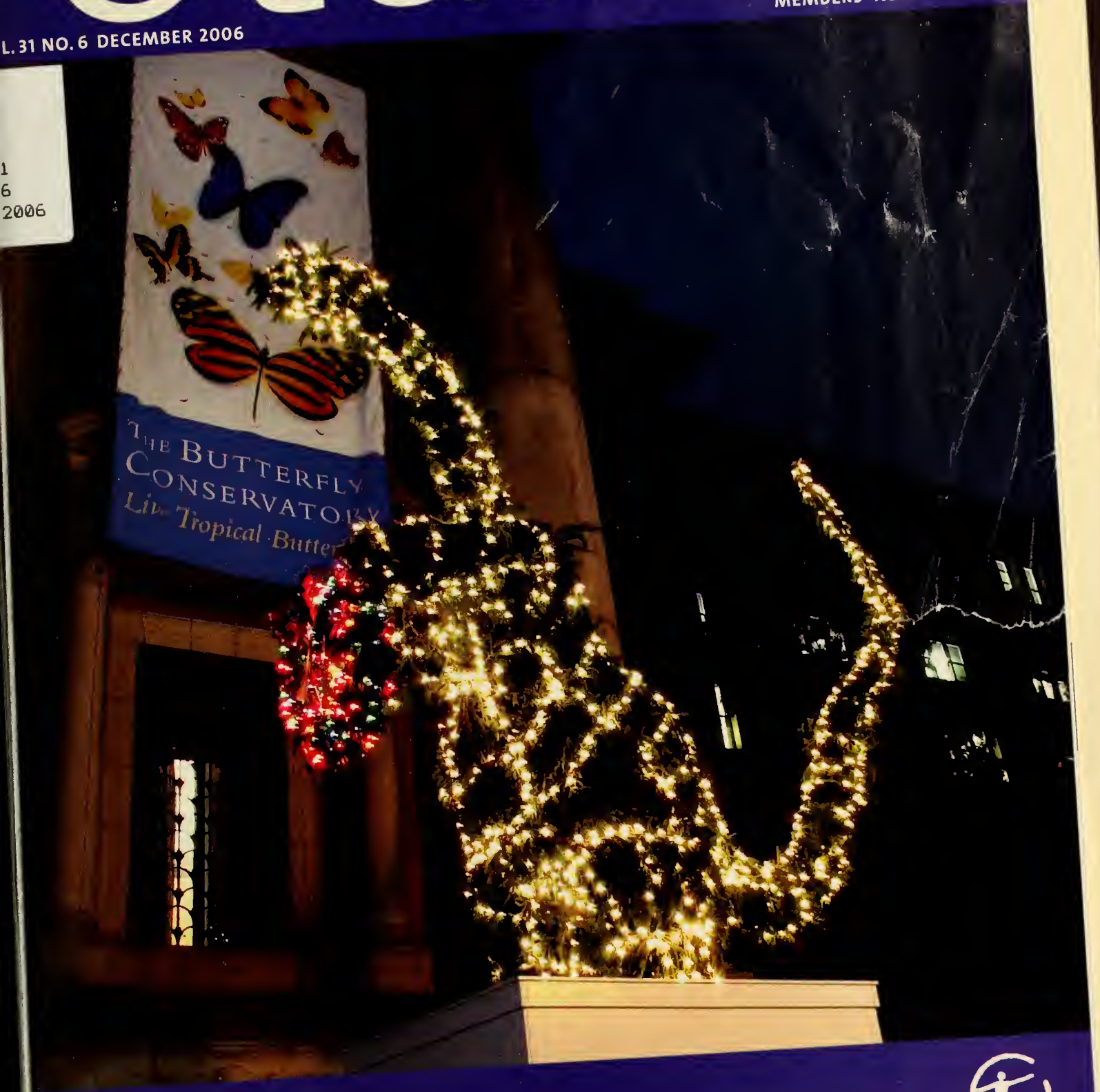
Membership Department
Central Park West at 79th Street
New York, New York 10024-5192
www.amnh.org

rotunda

MEMBERS' NEWSLETTER

L. 31 NO. 6 DECEMBER 2006

1
6
2006



AMERICAN MUSEUM OF NATURAL HISTORY

Museum Notes

Green tree monitor | D. Finnin/AMNH

CURRENTLY ON VIEW

Gold

Through August 19, 2007
Gallery 3

This glittering exhibition explores the enduring fascination with this icon of wealth, beauty, and power, presenting the intriguing scientific and cultural story of one of the world's most prized natural resources. Rare natural specimens and significant cultural artifacts on exhibit include the famous La Trobe Nugget, gleaming pre-Columbian jewelry, an Oscar® award statuette, and more. Exhibits such as a room lined entirely in just three ounces of gold demonstrate gold's unique phyical properties.

Gald is arganized by the American Museum of Natural History, New York (www.amnh.org), in caaperatian with The Houston Museum af Natural Science.

This exhibitian is praudly supparted by The Tiffany & Ca. Foundation, with additional suppart fram American Express® Gold Card.

The Butterfly Conservatory: Tropical Butterflies Alive in Winter

Through May 26, 2007
Whitney Memorial Hall of Oceanic Birds
Admission is by timed entry only.
Tickets are $10 for Members and $6 for Members' children.

A return engagement of this popular exhibition includes up to 500 live, free-flying tropical butterflies. Visitors can mingle with the butterflies and view illustrated displays that describe the butterfly life cycle, defense mechanisms, evolution, and conservation.

Comman Marman butterfly (Papilia palytes) | H. Davies/AMNH

Lizards & Snakes: Alive!

Through January 7, 2007
Gallery 77

Live lizards and snakes are the center of attention in this engaging exhibition that explores these creatures' remarkable adaptations, including projectile tongues, deadly venom, amazing camouflage, and sometimes surprising modes of movement. Fossil specimens, life-size models, videos, and interactive stations complement the more than 60 live animals representing 26 species.

Lizards & Snakes: Alive! *is arganized by the American Museum of Natural History, New Yark (www.amnh.org), in callobaratian with Fernbank Museum of Natural Histary, Atlanta, and the San Diega Natural Histary Museum, with appreciatian ta Clyde Peeling's Reptiland.*

Lizards & Snakes: Alive! *is made passible, in part, by grants fram The Dyson Foundatian and the Amy and Lorry Rabbins Faundatian.*

Yellowstone to Yukon

Through January 15, 2007
IMAX Corridor

This exhibition of spectacular photographs takes viewers on a journey through the wilderness as well as the rapidly developing areas of the North American West—from Wyoming to the Yukon Territory—to explore one of the most ambitious corridor initiatives to date.

This exhibitian was developed by the American Museum af Natural History's Center far Biadiversity ond Canservatian in cancert with the Yellawstone ta Yukon Canservatian Initiative ond the Wilburfarce Faundation and is mode passible through their suppart. Additional generaus suppart pravided by the Woodcack Foundatian.

Vital Variety

Ongoing
IMAX Gallery

Beautiful close-up photographs highlight the importance of the immense diversity of invertebrates and their critical role in the survival of humankind.

HAYDEN PLANETARIUM SHOWS

Cosmic Collisions

Journey into deep space—well beyond the calm face of the night sky—to explore cosmic collisions, hypersonic impacts that drive the dynamic formation of our universe.

Casmic Callisians *was develaped by the American Museum of Natural Histary, New Yark (www.amnh.org), in callaborotion with the Denver Museum af Nature & Science; GOTO, Inc., Takya, Japan; and the Shanghai Science and Technolagy Museum.*

Made passible thraugh the generous support of CIT.

Casmic Callisions *was created by the Americon Museum af Naturol History with the mojor support ond partnership af the National Aeranautics ond Space Administratian, Science Missian Directarate, Heliophysics Divisian.*

SonicVision

Fridays and Saturdays, 7:30 and 8:30 p.m.

SonicVision is a trip out of this world and into the minds of the universe's most creative digital animators, set to a soundtrack of today's coolest music.

Now, for a limited time only, bring a friend FREE to SonicVision. Coupons are available at www.amnh.org.

Presented in association with MTV2 and in collaboration with renowned artist Moby.

SonicVision *is made possible by generous sponsorship and technology support from Sun Microsystems, Inc.*

IMAX MOVIES

Samuel J. and Ethel LeFrak Theater
For showtimes, visit www.amnh.org or call 212-769-5100.

Ride around the World

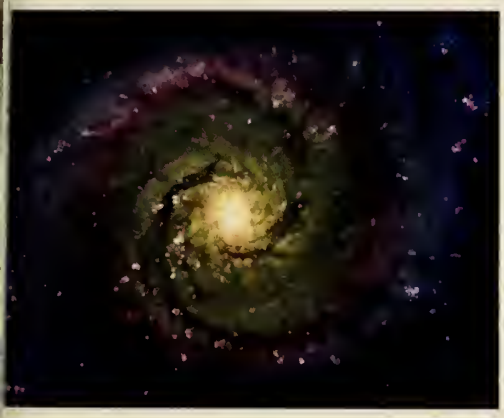
Filmed on location in Texas, British Columbia, Mexico, Chile, Argentina, Spain, and Morocco, this breathtaking film captures the history and spirit of the cowboy around the world and across cultures.

IMAX films at the Museum are made possible by Con Edison.

AND DON'T MISS...

AMNH Birthday Parties

Enchant your child on his or her special day with a Cosmic Blast-Off birthday party, featuring a tour through the Rose Center for Earth and Space and an exciting new Space



AMNH

Spanish vaqueros *in the latest IMAX offering at the Museum* | Courtesy Trinity Films

Show that's sure to sweep your party guests off their feet and into a whole new world. (For astronauts ages 7 and up)

Linda Kaye's Partymakers also presents three other festive party themes: Underwater Treasures, Dinosaur Discoveries, and Safari Adventure. Each party offers a winning combination of education and entertainment. Parties are tailored for children ages 4 and up and are available seven days a week as a benefit to Contributor and higher-level Members only. For more information and to request a date, visit www.partymakers.com or call Linda Kaye's Partymakers at 212-288-7112.

Patrons Circle Survey Winner

Thank you to Patrons Circle Members who returned their 2006 surveys. Your feedback is helpful to us. We are pleased to announce that the winners of our drawing for a $100 gift certificate to the Museum Shop are Patricia and Sherman Carll. It's not too late to return your survey! Please call 212-769-5153 for information.

COVER: *The Holiday Barosaurs welcome visitors to the Museum throughout December.* | D. Finnin/AMNH

SAVE A TREE

The current issue of *Rotunda* is now available online! Download it at www.amnh.org.

rotunda

ISSN 0194-6110
USPS Permit #472-650
Vol. 31, No. 6, December 2006

Lewis W. Bernard, *Chairman*
Ellen V. Futter, *President*
Lynn DeBow, *Senior Vice President for Development and Membership*
Rosemary Caulk, *Director of Membership*

Rotunda is published bimonthly, except for a combined issue in July/August/September and a single issue in December, by the Membership Office of the American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192. Phone: 212-769-5606. Web address: www.amnh.org. Museum membership of $70 per year and up includes a subscription to *Rotunda*.

©2006 American Museum of Natural History.

Periodical postage paid at New York, NY, 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 USPS 472-650). Date of filing: October 1, 2006. Frequency of issue: Bimonthly except for a combined issue in July/August/September and a single issue in December. Number of issues published annually: 6. Annual subscription price: Museum Membership of $70 a year or higher. 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: Membership Office, American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192. Editor: Jaime Sperling. Owner: American Museum of Natural History. Known bondholders, mortgage, 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 preceding 12 months and (B) signifies average number of copies of single issue published nearest to filing date. Total number of copies (A) 57,500 (B) 60,000. Paid circulation through Dealers and Carriers, Street Vendors, Counter Sales, and Other Non-USPS Paid Distribution (A) and (B): None. Mail subscription: (A) 50,730 (B) 49,673. Free distribution by mail: (A) 700 (B) 1150. Free distribution outside of mail: (A) 3,100 (B) 5,200. Total distribution: (A) 54,530 (B) 56,023. Copies not distributed: (A) 2,970 (B) 3,977. Return from news agents: None. Percent paid and or requested circulation: 93%. I certify that the statements made by me above are correct and complete.
(signed) Rosemary Caulk

Printed by Brown Printing, E. Greenville, Pennsylvania.

A Legacy of Expeditions

Since its founding in 1869, the American Museum of Natural History has sponsored expeditions into the farthest reaches of the known and scarcely-known world, as far afield as the North Pole and Komodo Island, the rain forests of Brazil and the North Pacific. The result of the Museum's extensive and numerous expeditions is an indispensable collection of specimens and artifacts that provide researchers with a record of life on Earth. Today, expeditions remain essential to the work of our scientists, strengthening the Museum's scientific research, educational efforts, and exhibitions. The scientific staff—over 200 curators, research associates, laboratory technicians, postdoctoral fellows, and Ph.D. students—work across a spectrum of disciplines. Each year, many embark on more than 100 expeditions, which have resulted in more than 2,500 research papers and books over the last ten years alone. This is a significant contribution to our understanding of the history of life and the evolution of the universe.

Museum scientists are continually expanding the Museum's legacy of expeditions and forging new understanding of evolutionary links among species and natural processes. Furthermore, field studies and the subsequent analyses that take place within the Museum often form the basis for special exhibitions and educational programs. Expeditions are remarkably varied.

Dr. James Webster, Curator-in-Charge and Curator, and Dr. Charles Mandeville, Senior Research Scientist, both of the Department of Earth and Planetary Sciences, traveled to Augustine volcano, Alaska. In January and February 2006, the volcano erupted for the first time in 20 years. The scientists went to the site in August to collect samples of the newly erupted volcanic material. Two scientific manuscripts resulted from this fieldwork.

Dr. Webster also traveled to mines in northern Nevada to collect gold-bearing rocks for the Museum's mineral deposit collections and for the special exhibition *Gold*.

Dr. Charles Spencer, Division Chair and Curator, and Research Associate Dr. Elsa Redmond, both of the Division of Anthropology, continued an archaeological project in the Oaxaca Valley of Mexico during July and August. Their research addresses the cultural evolution of the early Zapotec state (ca. 300 B.C.E.), whose capital was the hilltop site of Monte Albán. Their work is showing how Monte Albán's rise affected social, political, economic, and religious developments in the Valley at large.

The legendary Roy Chapman Andrews led expeditions to the Gobi in the 1920s. | AMNH

Annually since 1990, Dr. Michael Novacek, Senior Vice President, Provost of Science, and Curator in the Division of Paleontology, and Dr. Mark Norell, Division Chair and Curator in Paleontology, and a team of researchers have returned to the Gobi Desert of Mongolia, in partnership with the Mongolian Academy of Sciences. The Gobi is an important site for fossil collecting, and the richest known site in the world for fossils from the early Cretaceous period. The expeditions are arduous and labor intensive. Large swaths of desert are explored on foot, and scanned by eye for signs of fossils. The team must screen through sediment to locate small teeth and fossil fragments, and must be selective about which pieces to encase for shipment to AMNH for further study.

Dr. Christopher Raxworthy, Associate Dean of Science for Education and

Approaching Augustine volcano, Alaska | J. Webster/AMNH

Exhibition, and Curator-in-Charge and Associate Curator in the Department of Herpetology, traveled to Madagascar this past April. He worked with graduate students and faculty from the University of Antananarivo to conduct a survey of reptiles and amphibians in remote northern parts of the island. The particular block of forest had never been surveyed, and was therefore likely to be rife with undescribed species.

The team scoured the forest at night, searching for frogs along streams and for chameleons roosting in trees. Dead trees and rotting logs on the forest floor were excellent sites for finding snakes, frogs, geckos, and burrowing lizards that made their homes from the decomposing wood, as were crevices in rock, where smaller animals hide.

Dr. Raxworthy plans to share the data from the survey with the government

Dr. Christopher Raxworthy and students in the field in Madagascar | I. Constable

of Madagascar, which will be of assistance in planning for reserve areas and further research.

Once each season's expeditions are over, research continues at the Museum. Scientists use a variety of sophisticated tools to learn about specimens and analyze data collected in the field. For example, the Museum's state-of-the-art Cullman

Dr. James Webster in front of a massive volcanic block on the slopes of Augustine volcano | C. Mandeville/AMNH

Molecular Laboratories allow DNA sequencing of samples taken from field specimens. Scientists also use CT (computed tomographic) scanning to discern such features as structure and growth patterns; Dr. John Maisey, Axelrod Curator in the Division of Paleontology, began using CT to generate some of the first images of the braincases of early fossil sharks, providing insights into early evolution of this group of marine fishes.

Museum scientists also compare their findings from the field with those of their colleagues at the Museum and in other research institutions. In fact, once the research is "complete" for a particular specimen, it becomes part of the Museum's collections and is available for future generations of scientists to reexamine. Thus the expeditions' specimens and data have a longevity that contribute to scientific discovery now and in the future.

The Museum's scientific work depends on contributions from you. Through the generosity of the Stavros S. Niarchos Foundation, the Museum has endowed funding for an annual expedition. As a nonprofit scientific research institution, the support of Members and other contributors such as the Niarchos Foundation is the linchpin of our efforts, crucial to getting out to the field to conduct baseline surveys and species counts, and to developing collections for further study and sharing among the scientific community.

To support the Museum, please visit http://amnh.org/donate, call 212-769-5151, or mail to the attention of the Development Department.

We thank you for your dedicated support.

Male angel's chameleon (Furcifer angeli) | I. Constable

Members' Programs

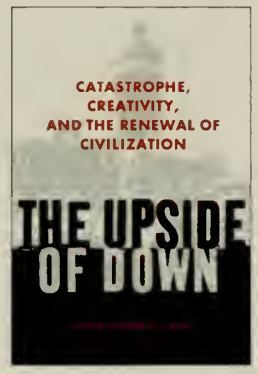
Programs are available to Members only, unless a non-Member's price is given.

LECTURE

The Upside of Down

Thursday, January 25 ML012507
7:00 p.m.
Kaufmann Theater
$12 ($15 Non-Members)

Author and conservationist Thomas Homer-Dixon suggests that the pressures we are putting on our planet are likely leading to an imminent breakdown in the economic, political, and ecological systems that sustain us. By examining the intertwined causes of these systemic crises—from growing energy shortages to yawning economic inequalities—Dixon's latest book, *The Upside of Down: Catastrophe, Creativity, and the Renewal of Civilization*, shows what we can learn from them and how we can mitigate them.



BEHIND-THE-SCENES TOURS

Behind the Scenes in the Frozen Tissue and Molecular Labs

Wednesday, January 17 MB011707A,B,C
6:30, 7:00, or 7:30 p.m.
$30

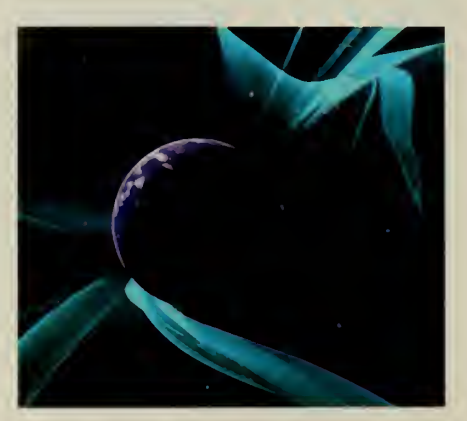
Join Rob DeSalle, Curator of the Molecular Systematics Laboratories, for a tour of the facilities where the Museum's DNA sequencing and genomic research take place with the latest generation of sequencing equipment. Julie Feinstein, Collection Manager of the Ambrose Monell Collection for Molecular and Microbial Research, will then lead a tour of the frozen tissue lab, which has the capacity to store tens of thousands of samples in liquid-nitrogen-cooled vats. This facility positions the Museum at the forefront of nonhuman comparative genomics. Then, Director of Conservation Genetics George Amato will discuss the latest techniques in conservation biology, molecular ecology, and wildlife forensics.

AMNH Molecular Labs | D. Finnin/AMNH

Behind the Scenes in the Hayden Planetarium

Wednesday, February 7 MB020707
6:30–8:00 p.m.
$30

Go behind the scenes with Carter Emmart, Director of Astrovisualization in the Rose Center for Earth and Space, for a virtual tour of the making of the latest Space Show, *Cosmic Collisions*. Learn about the team of AMNH scientists, artists, and technicians who created it. Then, Matthew Dougherty, Zeiss IX Programmer and Hayden Planetarium Instructor, will offer an up-close look at how the unique, custom-designed Zeiss IX Star Projector works. Preview the March 3, 2007, total lunar eclipse and travel back in time 2,000 years to learn why your current zodiac sign is not what you think it is.



Courtesy of the Rose Center for Earth and Space/AMNH

HALL TOURS

Nature's Bony Evidence

Sunday, January 7 MH010707
3:00–4:30 p.m.
Portrait Room
Free (reservations required)

The Museum is home to the world's largest collection of vertebrate fossils, with more than 600 specimens on view, including sharks, turtles, horses, saber-toothed cats, giant sloths, dinosaurs, and many others. The fourth-floor fossil halls are organized to reflect evolutionary relationships stretching back over 400 million years, using a method of scientific analysis called cladistics, which the Museum helped pioneer. Travel through time with Museum Tour Guide Andrew Epstein for a tour of vertebrate evolution.

Forces of Nature

Sunday, January 21 MH012107
3:00–4:30 p.m.
Portrait Room
Free (reservations required)

How did the Yellowstone Valley form? What causes earthquakes and lightning? The unstoppable forces of nature continue to shape our planet and are the subject of myths and legends in many cultures around the world. Learn the tragic story of Pele, the goddess of fire, and why she calls Hawaii home. Journey with Tour Guide Judith Cubbon through the Museum's halls as she explores these questions and pursues nature's fascinating phenomena.

FAMILY & CHILDREN'S PROGRAMS

Squamate Science

Sunday, January 7
MC010707A *10:30 a.m.–12:00 noon (ages 5–7, each child with one adult)*
MC010707B *1:30–3:00 p.m. (ages 8 and up, each child with one adult)*
Rose Center Classroom
$50/pair

In the oceans and the deserts, underground and in the trees, in the rain forest and even in our backyards, lizards and snakes—or squamates—are everywhere! Squamates are the most diverse group of living reptiles, come in all sizes and colors, and are as old as dinosaurs. Educator Amy O'Donnell will guide parents and kids through the Hall of Reptiles and Amphibians, the Hall of Biodiversity and the special exhibition *Lizards & Snakes: Alive!* to learn what makes the Komodo dragon such a successful predator and why some squamates choose to deposit their eggs in termite mounds. Back in the classroom, participants will create their own models of snakeskin, explore eggshells and bones, and take part in activities and games to learn about these reptiles' behaviors and habitats.

Horse fossils provide "bony evidence" of evolution: Equus simplicidens *lived two million years ago.* | AMNH Photo Studio

Reticulated Python diorama, Hall of Reptiles and Amphibians | D. Finnin/AMNH

Constellation Discovery

Sunday, January 28
MC012807A *11:00 a.m.–12:30 p.m. (ages 5–7)*
MC012807B *2:00–3:30 p.m. (ages 8 and up)*
Rose Center Classroom
$28

Stone Age or Space Age, humans have always pondered the twinkling lights above us. The patterns made by the stars—or constellations—were created as memory aids by the people of the ancient world. They aided in navigation and were the genesis of many fascinating stories, myths, and fabled creatures. Museum educator Stephen Brodbar teaches participants how to recognize these prominent "shapes" in the night sky, their stories, and how to use star maps.

PREVIOUSLY LISTED

Limited space may still be available for these programs.

I, Woz

Tuesday, November 28 ML112806
7:00 p.m.
Kaufmann Theater
$12 ($15 Non-Members)

After 25 years of avoiding the public eye, Steve Wozniak, who changed the face of personal computing forever as cofounder and inventor of Apple computer, tells the story of what happened at Apple in its early days in his autobiography *I, Woz*.

Encyclopedia Prehistorica: Sharks and Other Sea Monsters

Sunday, December 3 ML120306
2:00 p.m.
Linder Theater
$12 ($15 Non-Members)

Pop-up experts Robert Sabuda and Matthew Reinhart are back to present their second 3-D book from the Encyclopedia Prehistorica series, *Sharks and Other Sea Monsters*. Learn about the art of paper construction and see massive prehistoric sharks, giant sea scorpions, and colossal squid spring out in a full-page flourish of claws, spikes, and teeth!

Reflection nebula in the constellation Perseus | NASA/JPL-Caltech/R.A. Gutermuth (Harvard-Smithsonian CfA)

To the Ends of the Earth

Tuesday, December 5 ML120506
7:00 p.m.
Kaufmann Theater
$12 ($15 Non-Members)

Listen to the real-life stories of explorer Gordon Wiltsie, a *National Geographic* photographer, from the thrill of summiting a virgin peak to the fear of not surviving a storm, to the humorous and unexpected everyday moments of life on the edge. He has climbed Himalayan mountains, mushed dogs on the frozen Arctic Ocean, skied in Antarctica, and hacked through the Amazon jungle to photograph the most remote reaches of the planet.

Give a Gift for All Seasons: AMNH Membership

Your friends and relatives can enjoy all the benefits of Membership, including complimentary Museum general admission and special exhibition tickets, a year's subscription to *Natural History* magazine and *Rotunda*, invitations to Members' previews, and discounts in Museum Shops and restaurants. Choose the Membership level and we'll do the rest. As a special holiday bonus, we'll include in the gift the new *Windows on Nature* calendar (a $14.95 value).

Special offer expires December 31, 2006. Not valid for Members renewing their own Memberships.

1. Please send a one-year Membership at the category indicated to the person below:

❑ Individual $70 ❑ Dual $90 ❑ Family $115 ❑ Contributor $195

Recipient's Name _____

Street _____

City _____ State _____ Zip Code _____

2. Please send a one-year Membership at the category indicated to the person below:

❑ Individual $70 ❑ Dual $90 ❑ Family $115 ❑ Contributor $195

Recipient's Name _____

Street _____

City _____ State _____ Zip Code _____

Your Name _____

Street _____ City _____ State _____ Zip Code _____

❑ Enclosed is my check for $ _____ OR

❑ Please charge my: ❑ Visa ❑ MasterCard ❑ American Express

Card Number _____ Exp. Date _____ Signature _____

Birding in the Southwest

The Museum's Southwestern Research Station, Portal, Arizona | D. Wilson/AMNH

Whether you're longing to spot a magnificent hummingbird, a golden eagle, or the elegant trogon—kin to the Quetzal venerated by the ancient Mayans—birders agree one of the best places to go is Cave Creek Canyon in the Chiricahua Mountains of southeastern Arizona. And how better to go there than under the auspices of the Southwestern Research Station (SWRS), a field station under the year-round direction of the Center for Biodiversity and Conservation at the American Museum of Natural History?

Here in the largest of the spectacular "sky island" mountain ranges of the Coronado National Forest, the SWRS is offering guided bird tours of this biodiversity hotspot comprising four different ecosystems that are home to a wide range of wildlife and hundreds of species of birds.

Experienced local guides will take birders on daily field trips, explaining the natural history of the region along the way. Optional owl walks will be offered at night.

To give each participant the full birding experience, each six-day, five-night tour is limited to ten people (or five couples). The program provides cabin housing, three meals a day

Broad-billed hummingbird | Jo Ellen Ryan

(including delicious sack lunches and bottled water when needed), a gift bag with coupons to the Station's gift shop, and more.

Museum Members receive a 10% discount. More generalized nature tours are also available. For more information on the bird and nature tours, visit http://research.amnh.org/swrs/birding%20paradise.htm.

Lives of Adventure and Giving Back: Joe and Lenore Scott

When Joe and Lenore sought each other out during a class session on hieroglypics at the New School, they had no idea that, now, 44 married years later, they would continue to share a love of adventure that has taken them to 108 countries, through exciting careers and a passion for history, art, science, and theater.

If you ask Joe about his time in "The War," he might tell you about the photo he snapped of Clark Gable shaving off his mustache for officers' basic training. Joe was a professional photographer and writer. In addition, he established a printing company. Lenore, upon graduation from Cooper Union, founded a graphic design firm in Manhattan. It's no surprise that they would join forces to write and design books on Egyptian hieroglyphics as well as 23 other books and games on subjects such as Shakespeare, opera, calorie counting, history, puzzles, and old cookbook recipes.

Joe and Lenore Scott have grown to love the American Museum of Natural History, with its memorable objects from places they've been. Revisiting the cultures of Russia, New Guinea, Chile, China, Vietnam, or numerous other distant lands takes the Scotts back to their adventurous days. On their 30-foot boat they have toured much of the east coast, including a 1,000-mile round trip via the Hudson, Erie Canal, Lake Ontario, Ottawa, Quebec, and the canal systems of Canada.

Joe and Lenore Scott | C. Chesek/AMNH

When in New York, Joe and Lenore are here at the Museum, having worked with the New Exhibit Department, Mammalogy, and Origami, and having helped create the bark and leaves of trees in the Hall of Biodiversity. To offer more than their time to the Museum, Joe and Lenore each established a charitable gift annuity for the Museum, which gives them an annual return based on their age and a charitable tax deduction. It is a win/win planned gift—both for the Museum and for the donors.

If you are interested in discovering more about this kind of gift, call the Office of Planned Giving at 212-769-5119, or email plannedgiving@amnh.org. Your information will be kept in complete confidence.

Last Chance to Join the Junior Council for 2006–2007!

Jacqueline Cohen and Junior Council Steering Committee member Sam Stahl on the spectacular Arthur Ross Terrace, June 27, 2006 | R. Mickens/AMNH

The Junior Council is a Museum Membership group of young, philanthropic New Yorkers, ages 22 to 39 years old, who participate in a yearlong program of specially arranged events and enjoy an intimate view of the Museum's collections, activities, and exhibitions. The Junior Council is a great way to meet people with similar interests while previewing the latest, most talked-about exhibitions and getting a behind-the-scenes look at one of the world's greatest museums.

Enrollment for the 2006–2007 season ends December 16, 2006, so join now and don't miss a minute of the fun! For more information, please visit www.amnh.org/join/junior_council or contact Caite Galblum at 212-496-3457 or cgalblum@amnh.org.

Public Programs

These programs are available to the general public. Call 212-769-5200 for information and tickets.

GLOBAL WEEKENDS

Kwanzaa Spirit 2006!

Saturday, December 30
12:00 noon–5:00 p.m.
Milstein Hall of Ocean Life
Free with Museum admission

Celebrate 40 years of *Nguzo Saba*, Kwanzaa's seven principles. In an afternoon of song, dance, and spoken word, this festival salutes the history of Africans and African-Americans, featuring Drama Desk and Tony Award–winning performances. Also, enjoy a Kwanzaa marketplace and culinary delights with the entire family.

Global Weekends are made possible, in part, by The Coca-Cola Company, the City of New York, the New York City Council, and the New York City Department of Cultural Affairs. Additional support has been provided by the May and Samuel Rudin Family Foundation, Inc., the Tolan Family, and the family of Frederick H. Leonhardt.

Courtesy of the Universal African Dance & Drum Ensemble

LECTURES

21st-Century Challenges in Mining Gold

Wednesday, December 6 EL120606
7:00 p.m.
Kaufmann Theater
$15 ($13.50 Members)

Gold miners must remove tons of rock and process it using hazardous chemicals to extract a single ounce of gold—a practice that can adversely affect local environments. A panel of experts moderated by James D. Webster, AMNH, Curator and Chairman, Department of Earth and Planetary Sciences, will discuss these and other issues.

Adventures in the Global Kitchen: Golden Sake

Tuesday, January 16 EL011607
7:00 p.m.
Wallach Orientation Center
$50 ($45 Members)

The Japanese adoration of gold is demonstrated through its arts and temples, and even extends to "golden sake." In celebration of *Gold*, Bon Yagi and Ken Kusakabe, owners of Sakagura, return to the Museum in a special tasting of different golden sakes (paired with hors d'oeuvres). Speaker Michael John Simkin joins them to describe Japan's lasting artistic use of this metal while elaborating on the significance of edible gold leaf in sake.

GOLD SUNDAYS

Learn all about gold in these hands-on creative workshops. Take all three programs and earn a special certificate.

Gold Treasure Hunt

Sunday, December 3
EC120307A *11:00 a.m.–12:30 p.m.*
(ages 4–6, each child with one adult)
EC120307B *1:30–3:00 p.m. (ages 7–9)*
Calder Laboratory
$25/pair

Discover the museum's own buried treasure with an exciting and educational scavenger hunt! Young fortune hunters will learn about gold myths and legends using clues strewn throughout the halls of the Museum.

Gilding with Gold Leaf

Sunday, December 10
EC121006A *11:00 a.m.–12:30 p.m.*
(ages 4–6, each child with one adult)
EC121006B *1:30–3:00 p.m. (ages 7–9)*
Calder Laboratory
$35/pair

Gold leaf suspended in a bottle

Using real 22-karat gold leaf, children will learn the traditional process of gilding—the application of thin, hammered sheets of gold leaf.

All about Alchemy

Sunday, December 17
EC120307A *11:00 a.m.–12:30 p.m.*
(ages 4–6, each child with one adult)
EC120307B *1:30–3:00 p.m. (ages 7–9)*
Calder Laboratory
$25/pair

Discover the magical world of alchemy, the roots of modern chemistry, in this hands-on workshop with science educator Evelyn Roman-Lazen. Experiment with potions and formulas that will help demystify the atomic world while learning about basic chemistry.

KID'S ASTRONOMY PROGRAM

NEW! Elemental Universe

Saturday, December 9 RC120906
11:00 a.m.–3:00 p.m.
Rose Center Classroom
$60
(Ages 10 and up)

This half-day workshop will trace the history of gold in the universe from the Big Bang to gold mines. A guided tour of the *Gold* exhibition and a boxed lunch are included.

AMERICAN MUSEUM OF NATURAL HISTORY

MUSEUM SHOP

flights of fancy

FREE SHIPPING

Let your child's imagination soar with these delightful gift baskets, just in time for the holidays. Girls and boys ages 3 to 8 will get hours of pleasure from these baskets, filled with fun things to hug, make, read, and play with. Orders must be placed by December 12 for holiday delivery.

Call our Personal Shopper at 1-800-671-7035 or order online at www.amnh.org.

AMERICAN MUSEUM OF NATURAL HISTORY

WWW.AMNH.ORG

General Information

HOURS

Museum: Daily, 10:00 a.m.–5:45 p.m.
The Museum is closed Thanksgiving and Christmas.
Space Show: Every half hour, 10:30 a.m.–4:30 p.m.
Research Library: Tuesday–Thursday, 2:00–5:30 p.m.
Hours are subject to change.

ENTRANCES

During Museum hours, visitors may enter through the subway (lower level), Central Park West at 79th Street (second floor), and the Rose Center/81st Street entrances. The Columbus Avenue entrance is open on weekends and holidays. The 77th Street entrance is closed until further notice.

TRANSPORTATION AND PARKING

Subway: B (weekdays) or C to 81st Street; 1 to 79th Street
Bus: M7, M10, M11, or M104 to 79th Street; M79 to Central Park West
Parking Garage: Open daily, 8:00 a.m.–11:00 p.m.; enter from West 81st Street. Members receive a discounted rate of $10 if entering after 4:00 p.m. To receive this rate, you must have your parking ticket validated at the Security Desk (first floor, Central Park West entrance). For more information, call 212-313-7278.

FOOD SERVICE

Museum Food Court: Daily, 11:00 a.m.–4:45 p.m. (*lower level*)
Starlight Café: Saturday and Sunday, 11:00 a.m.–4:45 p.m (*first floor*)
Café on 4: Saturday and Sunday, 11:00 a.m.–4:45 p.m (*fourth floor*)
Hours are subject to change.

MUSEUM SHOPS

The following Museum Shops are open during regular Museum hours:
Main Shop (*first and second floors*)
Dinostore (*fourth floor*)
Planetarium Shop (*Rose Center, lower level*)
Cosmic Shop (*Rose Center, second floor*)
Butterfly Shop (*second floor*)
Gold Shop (*third floor*)
Online Shop (*www.amnh.org*)

PHONE NUMBERS

Museum Information	212-769-5100
Membership Office	212-769-5606
Central Reservations	212-769-5200
Communications	212-769-5800
Development	212-769-5151
Discovery Tours	212-769-5700
Education	212-769-5304
Event & Conference Services	212-769-5350
Library Services	212-769-5400
Member Birthday Parties	212-769-5606
Museum Shop	800-671-7035
Natural History Magazine	646-356-6500
Patrons Circle	212-769-5153
Planetarium Information	212-769-5900
Planned Giving Office	212-769-5119
Volunteer Office	212-769-5566
Web Site	www.amnh.org

www.amnh.org

AMERICAN MUSEUM OF NATURAL HISTORY

The American

Rotunda.
American Museum of Natural History
Received on: 11-27-06

Walk on

with an intrepid band of early-morning movers and shakers. Join this Wednesday-morning fitness walk through the Museum for Members at the Contributor level ($195) and above.

13 Wednesdays, January 3, through March 28, 2007, 8:00-9:30 a.m.

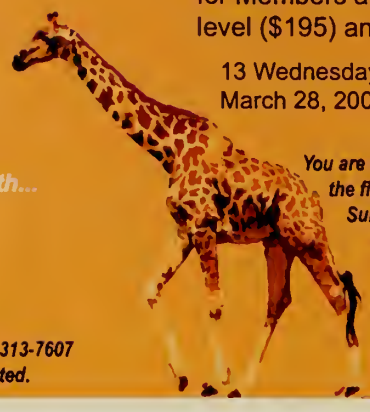
Exercise your body,

Educate your mind,

Explore the world,

Escape the cold,

Power-walk to the farthest corners of the Earth...



You are invited to bring a guest to the first session kick-off event. Subsequent sessions are for registered Members only.

Call Joi B. Knight at 212-313-7607 to register. Space is limited.

Membership Department
Central Park West at 79th Street
New York, New York 10024-5192
www.amnh.org

AMNH LIBRARY
100189910