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***general guide
to the
exhibits***

THE AMERICAN MUSEUM OF NATURAL HISTORY

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to the
exhibits***

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OF NATURAL HISTORY

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THE AMERICAN MUSEUM OF NATURAL HISTORY



The American Museum of Natural History

is one of the largest institutions of its kind in the world. It was founded and incorporated in 1869 "for the purpose of encouraging and developing the study of natural science, advancing the general knowledge of kindred subjects and of furnishing popular instruction."

Support for the Museum comes from a number of sources. Theodore Roosevelt Square, the property on which the Museum stands, is owned by the City of New York, which provides for building maintenance and for the salaries of the custodial and teaching personnel. The total amount of the City's aid covers about one-third of the Museum's operating expenses. The remainder, which includes the administrative costs and the support of all the scientific departments and their collections, the preparation of exhibitions, and the financing of research projects, is paid for by the income earned on the Museum's endowment funds, by the gifts of interested contributors, by membership fees, by grants and awards from foundations, and by revenue from sales and services to the public.

The Museum covers approximately twenty-three acres of floor space. In the eleven and a half acres open to the public, there are exhibition areas devoted to every aspect of the study of the natural sciences. In the remaining eleven and a half acres are the scientific and educational offices, laboratories, libraries, service departments, workshops, and storage areas. In the storerooms are the tens of millions of

zoological, geological, anthropological, and botanical specimens that are studied by Museum scientists and by students and scholars from all over the world.

Two major principles give meaning and order to the Museum's exhibitions and to the carefully catalogued collections: the evolution of life, and the interdependence of all living things, including man.

The American Museum of Natural History is located in Theodore Roosevelt Park, bounded by Central Park West, West 81st Street, Columbus Avenue, and West 77th Street. It can be reached . . .

by bus:

8th Avenue or Columbus Avenue, and 79th Street Crosstown to Central Park West

by subway:

Independent—6th or 8th Avenue Local (trains marked AA, BB, or CC) to Museum and Planetarium Station (81st Street)

IRT—7th Avenue (change at 59th Street to Independent Subway, uptown local. See above)

IRT—Lexington Avenue, 77th Street Station, then Crosstown bus, westbound, from East 79th Street to Central Park West

The Museum is open to the public free of charge every day of the year from 10:00 a.m. to 5:00 p.m. on weekdays, and from 1:00 p.m. to 5:00 p.m. on Sundays and holidays.

Parking: A parking lot, for Museum and Planetarium visitors only, is located on 81st Street next to the American Muse-

um-Hayden Planetarium. A charge of \$1.00 is made for passenger cars, \$2.00 for buses.

Tuesdays, Wednesdays, and

Thursdays 9:30 a.m. to 10:30 p.m.

Mondays, Fridays, and

Saturdays 9:30 a.m. to 6:30 p.m.

Sundays and holidays 12:30 p.m. to 6:30 p.m.

Check Rooms are located on the first floor, Roosevelt Memorial Building, Section 12, and the 77th Street Foyer, Section 2. They are open on Mondays through Fridays, and closed on Saturdays, Sundays, and holidays.

Lost and Found: All lost articles found in the Museum are sent to the main check room, first floor of the Roosevelt Memorial Building, Section 12, where they are held for thirty days.

The Cafeteria, located on the lower level of the Roosevelt Memorial Building, Section 12, serves hot meals, as well as sandwiches and desserts. Groups with box lunches cannot be accommodated.

Mondays through Saturdays 11:30 a.m. to 4:30 p.m.

Sundays and holidays 1:30 p.m. to 4:30 p.m.

The Snack Bar, located in the basement of the School Service Building, Section 11, is for the exclusive use of school groups when schools are in session. Reservations must be made in advance. No reservations are necessary on Saturdays, when the Snack Bar is open to the public from 11:30 a.m. to 2:30 p.m. It is closed during the summer. All groups with box lunches must use the Snack Bar.

Both the Cafeteria and the Snack Bar are closed on Thanksgiving, Christmas, and New Year's Day.

The Museum Shop, located on the first floor near the 77th Street Foyer, sells books and pamphlets which cover the field of natural history for both the amateur and advanced naturalist, as well as Museum reproductions, handcrafts from Africa, India, and Indonesia, and fine collections of minerals and sea shells.

Two sales areas are especially for children. One is the Junior Shop in the 77th Street Foyer, Section 2; the other is located on the lower level, Roosevelt Memorial Building, Section 12.

Mondays through Saturdays 10:00 a.m. to 4:45 p.m.
Sundays and holidays 1:00 p.m. to 4:45 p.m.
Closed on Thanksgiving, Christmas, and New Year's Day.

The Planetarium Book Corner, located on the first floor of Section 18, features books on astronomy, navigation, and meteorology for both adults and children, and visual aids for the study of astronomy.

Mondays through Fridays 1:15 p.m. to 6:00 p.m.
Saturdays 10:15 a.m. to 6:00 p.m.
Sundays 12:15 p.m. to 6:00 p.m.
Evenings, except Mondays 7:30 p.m. to 10:00 p.m.

Rest Rooms are to be found near the 77th Street Foyer, Section 2; on the fourth floor, Section 2; and in the Lounge on the lower level of the Roosevelt Memorial Building, Section 12.

Smoking is permitted only in the Lounge and in the Cafeteria; both are on the lower level, Roosevelt Memorial Building, Section 12.

Public Telephones are available in the 77th Street Foyer, Section 2; and on the lower level and first and second floors of the Roosevelt Memorial Building, Section 12.

Elevators are available in two sections of the Museum: Section 2 and Section 12. Only the elevators in Section 12 go to the lower level of the Roosevelt Memorial Building, where the Cafeteria, Lounge, toilets, and First Aid Room are located.

A First Aid Room for the convenience of visitors is located on the lower level of the Roosevelt Memorial Building, Section 12. A registered nurse is in attendance during Museum hours.

Wheel Chairs, free of charge, can be obtained from the attendants at any of the entrances; or they may be reserved in advance by calling Guest Services, TR 3-1300, Ext. 342.

Photographing and Sketching: Amateur photographers may take pictures in the Museum halls, provided that they do not inconvenience other visitors. Professional photographers must get permission from the Museum's Division of Photography or Department of Public Relations, both of which are open on Mondays through Fridays, except on holidays. Sketching from exhibits is permitted.

Guides are available on weekdays after 2:00 p.m. at a minimum charge of \$5.00 an hour for from one to twenty-five persons. There is no guiding on Saturdays, Sundays, and holidays. Members of the Museum can obtain free guide service upon presentation of an Annual, Family, or Life Membership card. Appointments should be made by calling TR 3-1300, Ext. 254, at least two weeks in advance, stating the day and hour desired, the number to be guided, and the exhibits to be seen.

Classes for Children: The Department of Education conducts an extensive program for public school classes called "The World We Live In." This program, scheduled for each school

day from 10:00 a.m. to 1:30 p.m., is devoted to lessons in the halls, question and answer periods, motion pictures, demonstrations, and actual handling of objects of natural science interest. For full information, write or telephone the Registrar, TR 3-1300, Ext. 254.

Libraries: There are two research libraries in the Museum. The Main Library is located on the fourth floor of Section 1. It is open from 12:00 noon to 4:00 p.m., except on Sundays and holidays and on Saturdays during June, July, and August. The Astronomy Section of the Main Library is in the basement of the American Museum-Hayden Planetarium, Section 18, and is open to researchers by appointment.

The Members' Room is just off the south corridor of the Theodore Roosevelt Memorial Building, second floor, Section 12. It is open from 10:00 a.m. to 5:00 p.m. on weekdays, and on Sundays from 1:00 p.m. to 5:00 p.m.

The Natural Science Center for Young People is devoted to the wild life and geology of the metropolitan area. The informal exhibits include some living plants and animals, seasonal phenomena, and books on nature.

The Center is located on the second floor of the School Service Building, Section 11.

October through June

Tuesdays through Fridays 2:00 p.m. to 4:30 p.m.

Saturdays 10:30 a.m. to 12:30 p.m.

1:30 p.m. to 4:30 p.m.

Sundays 1:00 p.m. to 4:00 p.m.

Closed Mondays and holidays

July and August

Tuesdays through Saturdays . . 10:30 a.m. to 12:30 p.m.

1:30 p.m. to 4:30 p.m.

Closed Sundays, Mondays, and holidays
September, closed

Groups admitted by appointment only; telephone TR 3-1300,
Ext. 281.

A Monthly Calendar of Events, published from September through June, will be mailed, free of charge, upon request to Guest Services, in care of the Museum. Individual copies can be obtained from attendants at the entrances, or from the sales areas.

The Natural Science Center for Young People



Locations of Exhibits

Floor	Section	Floor	Section
	AFRICAN MAMMALS (AKELEY MEMORIAL) 2, 3 13		Indians of South America . . . 2 3, 8 Indians of the Northwest Coast 1 1 Indians of the Plains 1 6 Indians of the Southwest . . . 1 8 Men of the Montaña 2 3 Mexico and Central America . 2 4 Peoples of Africa 3 8 Peoples of Asia 3 6
	ARCHEOLOGY Indians of South America . . . 2 8 Mexico and Central America . 2 4 Stone Age Cultures 2 6		FISHES 1 9
	ASTRONOMY (THE PLANETARIUM)* . . . 1, 2 18		FORESTS AND GENERAL ECOLOGY Man and Nature (Warburg Memorial) 1 3 North American Forests . . . 1 5
	THE BIOLOGY OF BIRDS (SANFORD MEMORIAL) . . . 1 19		FOSSIL FISHES 4 13
	THE BIOLOGY OF MAMMALS 3 3		FOSSILS OF THE NEW YORK AREA 1 12
	THE BIOLOGY OF MAN 1 4		GEOLOGY Geology of the New York Area 1 12 Minerals and Gems (Morgan Memorial) 4 4 Oil Geology 2 1
	BIRDS Biology of Birds (Sanford Memorial) 1 19 Birds of the New York Area . 1 12 Birds of the World 2 2 North American Birds (Chapman Memorial) 3 1 Oceanic Birds (Whitney Memorial) 2 19		ICE AGE MAMMALS 4 2
	CORNER GALLERY 2 5		INDIANS OF SOUTH AMERICA 2 3, 8
	DINOSAURS Early Dinosaurs 4 13 Late Dinosaurs 4 9		INDIANS OF THE NORTHWEST COAST 1 1
	EARLY DINOSAURS 4 13		INDIANS OF THE PLAINS . . 1 6
	EARLY MAMMALS 4 5		INDIANS OF THE SOUTHWEST 1 8
	ESKIMOS 1 7		INSECTS 3 5
	ETHNOLOGY Eskimos 1 7		

Floor Section

INVERTEBRATES (LIVING) ..1.....10

LATE DINOSAURS4.....9

**LATE MAMMALS
(OSBORN MEMORIAL)4.....3**

MAMMALS

African Mammals
 (Akeley Memorial)2, 3.....13
The Biology of Mammals ...3.....3
Early Mammals4.....5
Ice Age Mammals4.....2
Late Mammals
 (Osborn Memorial)4.....3
Mammals of the
 New York Area1.....12
Modern Horses4.....2
North American Mammals ...1.....13
North Asiatic Mammals ...2.....5
Ocean Life1.....10
Primates3.....2
South Asiatic Mammals ...2.....9

**MAN AND NATURE
(WARBURG MEMORIAL)1.....3**

MEMORABILIA

John Burroughs2.....12
Lincoln Ellsworth1.....2
Theodore Roosevelt1, 2.....12

MEN OF THE MONTAÑA...2.....3

**MEXICO AND
CENTRAL AMERICA2.....4**

**MINERALS AND GEMS
(MORGAN MEMORIAL).....4.....4**

MODERN HORSES4.....2

NEW YORK STATE

Amphibians and Reptiles ...1.....12
Birds of the New York Area .1.....12
Fossils of the New York Area 1.....12
Mammals of New York Area .1.....12

Floor Section

Man and Nature1.....3
Minerals of the
 New York Area1.....12

**NORTH AMERICAN BIRDS ..3.....1
(CHAPMAN MEMORIAL)**

NORTH AMERICAN FORESTS 1.....5

**NORTH AMERICAN
MAMMALS1.....13**

NORTH ASIATIC MAMMALS .2.....5

**OCEANIC BIRDS
(WHITNEY MEMORIAL)2.....19**

OCEAN LIFE1.....10

OIL GEOLOGY2.....1

PEOPLES OF AFRICA3.....8

PEOPLES OF ASIA3.....6

PLANETARIUM*1.....18

PRIMATES3.....2

REPTILES3.....9

SOUTH ASIATIC MAMMALS .2.....9

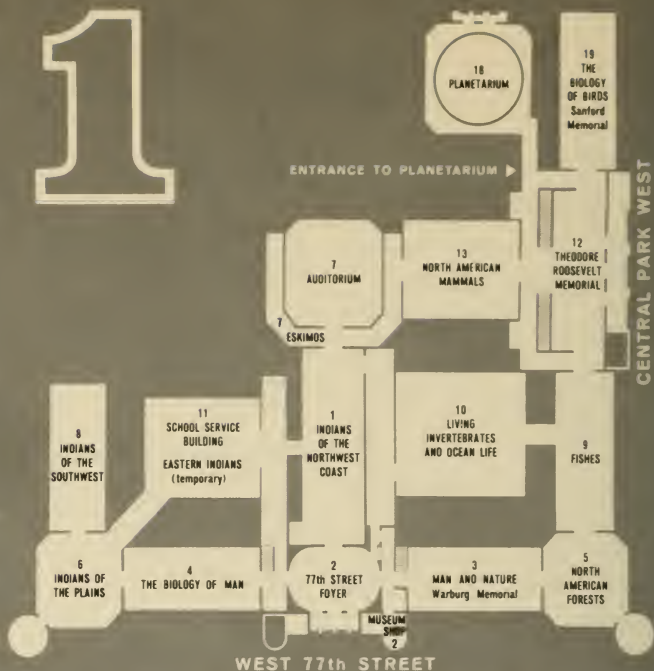
STONE AGE CULTURES2.....6

**THEODORE ROOSEVELT
MEMORIAL1, 2.....12**

*Ask for a schedule of performances
and admission prices.

NOTE: On certain occasions exhibit
areas may have to be temporarily
closed without notice. We regret any
inconvenience caused to our visitors.

1



2



3



4





77th Street Foyer

FIRST FLOOR, SECTION 2

Built nearly 75 years ago, the 77th Street Foyer is the main entrance to the Museum. In the center stands a large war canoe of the Haida tribe of Northwest Coast Indians. On the north side of the foyer is the Museum's Junior Shop.

The Biology of Man

FIRST FLOOR, SECTION 4

This hall, divided into three sections, is devoted to biological man and is the first in a series planned to deal with the phenomena of man and his culture. The first section is reserved for the story of the human species—its relationship to other vertebrates and its evolution. The second area is concerned with the structure and functioning of the human being. The exhibits are designed to illustrate the fundamental organization of man and to demonstrate basic physiological systems down to the microscopic levels where vital processes take place. Thus this series begins with a single cell and its structure and proceeds to the way cells are modified for specialized functions and are arranged in tissues and organs. Reproductive mechanisms are displayed in association with the exhibits on the cell. Following these, the organism is analyzed in terms of the various systems that comprise it. Here, too, are to be found subsidiary exhibits on growth and development.

The final section will show biological phenomena associated with groups of human beings—population, genetics, race, demography, and man's relationship to his environment.

The human circulatory system, Hall of the Biology of Man

Indians of the Plains*

FIRST FLOOR, SECTION 6

The Great Plains of the United States lie between the Rocky Mountains and the Mississippi River and extend from the valley of the Rio Grande into Canada. Two major groups of tribes inhabited the area: the semi-sedentary farming peoples and the nomadic buffalo hunters. The farming peoples lived in permanent villages, but during part of the year, they lived as nomads following the buffalo herds. The nomadic tribes depended almost entirely on the buffalo. Buffalo meat was their chief food, they made clothes and houses from buffalo skin, and they made a variety of tools from buffalo horn and bone. The buffalo-hunting culture of the Plains had its greatest development after the introduction of the horse, for hunting buffalo from horseback was easier and more profitable than hunting on foot. The nomadic Plains Indians are perhaps more familiar to Americans than the Indians of any other part of the United States, for they are the Indians most often portrayed in motion pictures.

Indians of the Southwest*

FIRST FLOOR, SECTION 8

Displayed in this hall are artifacts of the prehistoric and historic cultures of Arizona and New Mexico. Prehistoric farming peoples, who were the ancestors of a number of modern tribes, lived in the Southwest before the birth of

NEED IN 1912
*Because of current construction work in connection with new anthropological exhibits, these two halls are not always open to the public. When open, they are accessible from the School Service Building, Section 11.

Christ. Artifacts from some of the most famous ruins of the Southwest are on exhibit.

The historic cultures of the Southwest are varied and fall into three major groups: the Pueblos, the Southern Athabascans, and the Rancheria tribes. The Pueblo Indians inhabit compact towns and are farmers; they are also expert craftsmen. Their ceremonial rites are complex and colorful and are performed primarily to bring rain and abundant crops. The Navajo and the Apache comprise the Southern Athabascans. Although these tribes adopted agriculture from the Pueblos, they lived chiefly by hunting and gathering. Rancheria tribes included in the hall are the Papago, Pima, and Havasupai. These people were farmers, but they depended, perhaps equally, on the hunting and gathering of wild plants and animals.

The hall also exhibits artifacts from several Californian tribes, who lived by hunting, fishing, and the gathering of wild plants. Their skill in basketry is unsurpassed by any other people in the world.

Indians of the Northwest Coast

FIRST FLOOR, SECTION 1

The Tlingit, Tsimshian, Haida, Bella Coola, Kwakiutl, Nootka, and Coast Salish peoples comprise the tribes that are represented in this hall. Their territory extended along the Pacific coast from southern Alaska to northern California. The exhibits, for the most part tribally organized, present the daily and ceremonial life of these tribes through the medium of the artifacts they made themselves, supplemented by life-sized and miniature models.

The Indians of the Northwest Coast derived their food large-

ly from the sea and supplemented it by hunting land mammals and gathering roots, berries, and bulbs. The heavily forested areas of their land environment supplied them with materials for their houses, utensils, and other household gear. Their superb control of the carver's art can be seen not only in the monumental totem poles and masks, but in minor examples executed in ivory.

The collections from which these exhibits were drawn were gathered chiefly from the several tribes in the latter half of the nineteenth century, so that the exhibition represents the culture of these Northwest Coast Indians as it functioned immediately prior to the period of its almost total collapse, early in the present century.

Eskimos

FIRST FLOOR, SECTION 7

The Eskimo, distributed from the eastern tip of Siberia to Greenland, are the best known of the peoples who have a culture adapted to the rigorous climatic conditions of the Arctic. Their material culture is exceptionally rich; they have many ingenious tools and weapons, of which a characteristic collection is on display in this hall, soon to be rebuilt and enlarged.

Man and Nature ***(Warburg Memorial)***

FIRST FLOOR, SECTION 3

Man, with all his tools and technology, must still learn to live within the framework of the basic principles of nature. In the Hall of Man and Nature some of the relations between man, the earth, and other living things are shown as they

exist in a rural area near New York City. The geological history, natural features, human history, and agricultural practices of the region are explained. Throughout the hall, the relationship between human activities and natural principles is emphasized.

North American Forests

FIRST FLOOR, SECTION 5

Forests are the most widespread natural vegetation on the North American continent, and the most valuable. In this hall, the forest is analyzed as a natural community composed not only of trees, but of a large variety of other plants and animals. Eleven habitat groups depict the variety of forest communities from Arizona to central Canada. Other exhibits explain the structure and internal functions of the forest, the interrelationships between the forest and its environment, the diversity and distribution of forest types, and man's use of the forest and his efforts to protect it.

Olympic Forest scene, Hall of North American Forests



Fishes

FIRST FLOOR, SECTION 9

In this hall, scheduled for early rebuilding, representative fishes are exhibited in a synoptic series that is arranged according to their relationships and that indicates their main lines of evolution. Various family trees explain these relationships. Exhibits showing anatomical, functional, and ecological aspects of selected kinds of fishes range from a treatment of the most primitive to displays of the most highly evolved. Habitat groups show some of the environments in which present-day fishes live. Exhibits of many of the most spectacular game fishes are of interest to anglers.

Ocean Life

FIRST FLOOR AND BASEMENT, SECTION 10

Mammals: Among the whales are the largest animals that have ever lived on the earth; the huge skeletons of whales displayed in this hall give an indication of their great size. In addition there are life-sized models of some of the smaller whales, porpoises, and dolphins along the balcony, as well as scale models of the larger ones. On the lower level are habitat groups of other marine mammals—walruses, elephant seals, fur seals, sea lions, and a manatee; additional groups for this hall are being built.

Invertebrates: On the balcony of the Hall of Ocean Life is a representative collection of invertebrates, in synoptic series from the simplest to the most complex. Visible here as scale models in glass or wax are examples of the smallest and most fragile of invertebrate animals. Larger forms are represented in many cases by actual specimens. Also on the balcony are a number of habitat groups showing invertebrates in their natural surroundings.

Theodore Roosevelt Memorial

FIRST FLOOR, SECTION 12

The first floor of the Memorial contains four large dioramas pertinent to Theodore Roosevelt's background and interests, while in the surrounding corridors are located exhibits on the geology and wild life of New York State. Prominently featured in these exhibits is a comprehensive display of some of the animals of the New York City area.

North American Mammals

FIRST FLOOR, SECTION 13

The large and medium-sized mammals of North America are exhibited in spectacular natural habitat displays. Many of these mammals are important as game or fur-bearing species—from the giant Alaska brown bear to the cottontail rabbit. The habitat settings range from the tundra of Ellesmere Land in the Arctic to the arid chaparral of Sonora, Mexico. Familiar National Park backgrounds—Yellowstone, Yosemite, the Great Smokies, Mt. McKinley, and Grand Canyon—are accurately portrayed. At the east end of the hall are two miniature dioramas of some of the extinct animals that inhabited North America during the last glacial period.

The Biology of Birds

(Sanford Memorial)

FIRST FLOOR, SECTION 19

One-half of this hall is devoted to a series of exhibits showing examples of all the families and principal groups of living birds. The evolution of birds and examples of fossil birds, including a mounted skeleton of the giant moa of

New Zealand, are shown. The rest of the hall illustrates various aspects of the biology and behavior of birds, including pair formation, courtship, nesting, care of the young, feeding habits, migration, evolution, and the relation of birds to man and human culture.

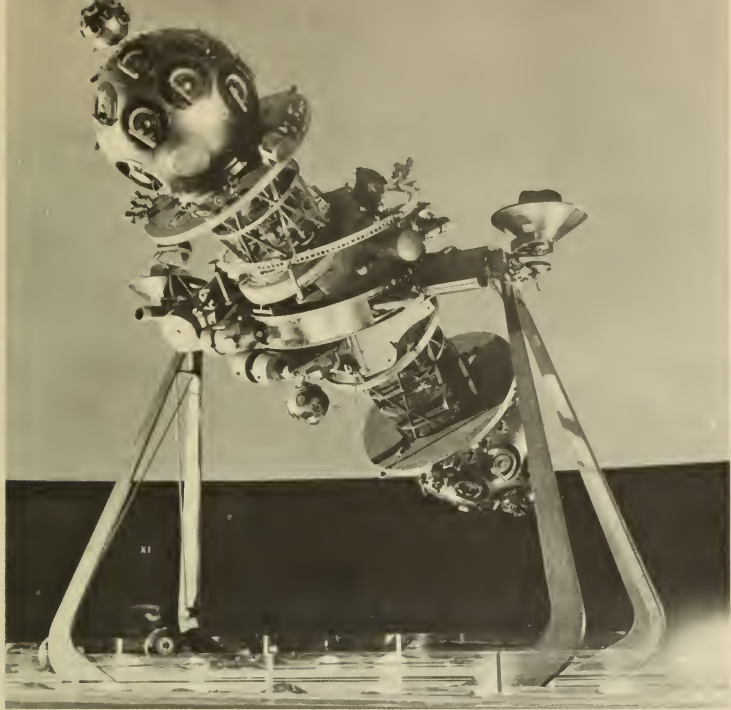
Astronomy (The Planetarium)

FIRST FLOOR, SECTION 18

Admission Matinees, adults \$1.00, children 50 cents
Evenings, adults \$1.25, children 75 cents
Children under five are not admitted. Ask attendant for schedule of performances.

The American Museum-Hayden Planetarium is the Department of Astronomy of The American Museum of Natural History. The Planetarium's sky programs are given several times each day in the great dome-shaped theater on the second floor. In the center of this room is the extraordinary Zeiss projector, an instrument that reproduces the stars, planets, sun, and moon on the Planetarium dome with amazing realism.

Each scheduled performance begins on the first floor in the circular Copernican Room where a mechanized model of the solar system, forty-eight feet in diameter, is suspended from the ceiling. Here audiences can see the motions of the planets and their moons as they hear a preliminary talk which prepares them for the sky presentation itself. In the corridors of the Planetarium are many exhibits on astronomy, space exploration, and related subjects. Among these is a series of spectacular "black-light" murals of celestial phenomena. Fluorescent pigments activated by ultraviolet light produce glowing, three-dimensional effects.



The Zeiss projector, American Museum-Hayden Planetarium

These and other exhibits—such as “Your Weight on Other Worlds” and “Computers in Astronomy”—are described and illustrated in the Planetarium General Guide, which can be purchased at the Planetarium Book Corner on the first floor.

Birds of the World

SECOND FLOOR, SECTION 2

A series of large habitat groups from selected areas of the world make evident the great differences in bird life from continent to continent, as well as the adaptations of cer-

tain birds for living in various types of climates and terrain. Among the areas shown are the Australian bush; the foothills of Mt. Fuji, Japan; two areas in Africa; the jungles of Barro Colorado Island, Panama; a marsh in Argentina; and the tundra near Hudson Bay.

Mexico and Central America

SECOND FLOOR, SECTION 4

The area of Mexico and Central America, before its discovery by Europeans, was inhabited by peoples having some of the most advanced of American Indian cultures. Best known are the Aztecs and their predecessors in the Valley of Mexico, along with the Maya of the Yucatan Peninsula and Guatemala, but there were many other groups that shared with these what is known as Middle American, or Mesoamerican, civilization.

Exhibits in the main hall, and in the small alcove that precedes it, contain many fine examples of the arts of these ancient peoples, including pottery vessels, figurines, jade and gold jewelry, and stone sculptures of many kinds. These are shown through the center and at the ends of the main hall, while detailed exhibits illustrating archeological sequences are seen along the north and south sides. There are also a number of reproductions of large stone monuments of the Olmec, Maya, and Aztec cultures, as well as scale models of pyramids and temple buildings.

Stone Age Cultures

SECOND FLOOR, SECTION 6

The Hall of Stone Age Cultures is divided into two parts. As the visitor enters from the Hall of Mexico and Central

America, to the right are archeological specimens from the eastern United States, the Pacific Coast, Canada, and Alaska. These are arranged by state and area. To the left are exhibits showing the sequence of human culture in Europe and other parts of the Old World. The sequence runs from the first making of stone tools, about 600,000 years ago, to the Iron Age, about 1400 B.C. This Old World collection is one of the finest and most complete in America.

The adjacent tower room contains a synoptic display from the Near East.

Indians of South America

SECOND FLOOR, SECTION 8

The imperfectly known record of the human occupation of South America spans more than 10,000 years. Our exhibits include weapons and implements of the earliest nomads, who were hunters of the extinct giant ground sloth and native American horses. These artifacts are from the southern end of the continent, where the historic tribes, whose equipment is also displayed, continued to live in much the same fashion as their early predecessors. Other ethnographic exhibits relate to groups occupying the tropical lowlands of Brazil, Peru, Ecuador, and the Guianas.

The archeological collection includes material from Puerto Rico and the West Indies, but is primarily from the area of advanced cultures along the Andes from northern Chile to Colombia.

Although much of this territory was under Inca control, most of the material shown antedates their rise to power. Among the textiles from the Peruvian desert are some that were made before 2000 B.C.



Fishing scene, Hall of Men of the Montaña

Oil Geology

SECOND FLOOR, SECTION 1

The story of petroleum, one of the most important of earth products in the service of man, is told in a non-technical manner in this hall. Arranged in counterclockwise sequence around the walls, the exhibit starts from the south entrance with the origin, geological occurrence, and distribution of

oil, followed by the contribution of paleontology to oil technology, oil-finding techniques, production, and the economics of petroleum. Other displays explain why oil is more plentiful in younger rocks than in old, the history of old oil-forming seaways in North America in the geologic past, some historical uses of oil, and interesting examples of drilling equipment. A scale model of an oil-drilling rig stands near the center of the hall.

Men of the Montaña

SECOND FLOOR, SECTION 3

The Montaña is an area of tropical rain forest in South America, just east of the Andes, that is inhabited by many Indian tribes—among them the Shipibo, Conibo, Cashibo, Piro, and Campa of Peru; and the Jivaro of Ecuador.

In spite of local differences, the culture of these tribes is broadly similar. Subsistence is based on the cultivation, by primitive techniques, of manioc, maize, and bananas. Hunting is done with the bow and arrow by some tribes, with traps and blowguns by others. The most important method of fishing is with barbasco, a vegetable poison. The typical men's costume is the cushma, a long garment resembling a nightshirt. This is woven of native cotton, as are also the women's shirts. Houses have a gabled, thatched roof but no walls. Villages are usually small and are politically and economically autonomous.

Corner Gallery

SECOND FLOOR, SECTION 5

This area is reserved for special exhibits, which generally have a three- to six-month duration.

South Asiatic Mammals

SECOND FLOOR, SECTION 9

Some of the larger mammals of southern Asia are displayed in this hall. A pair of Indian elephants is highlighted in the center, and around them are exhibits of the Asiatic lion, four-horned antelope, sloth bear, Sumatran rhinoceros, hoolock gibbon, otter, muntjak, deer, and antelope. In the habitat groups are several wild Asiatic cattle—gaur, banting, and water buffalo—as well as sambar and swamp deer, leopards, tigers, rhinoceroses, and wild dogs. The background settings of these groups show some of the diversity of terrain found in southern Asia.

Theodore Roosevelt Memorial

SECOND FLOOR, SECTION 12

One of the largest unobstructed concourses in New York, the second, or main, floor of the Theodore Roosevelt Memorial is the principal entrance to the Museum from Central Park West. Normally devoted to the display of Roosevelt memorabilia, the area is occasionally used for large-scale special exhibits, such as "Man in Space," which is currently on view. Murals symbolic of the twenty-sixth President's varied career decorate recesses forty-eight feet high on three sides of the hall, while elsewhere on the walls appear quotations from Roosevelt's writings.

African Mammals ***(Akeley Memorial)***

SECOND FLOOR, SECTION 13

Many of the best-known game animals of Africa are displayed in habitat settings in this hall. Dominating the main



WaterHole group, Hall of African Mammals

floor, in the center, is a herd of seven African elephants, and along the walls are groups of antelopes, giraffes, buffalo, lions, okapis, bongos, and gorillas, in natural settings in the Congo, Kenya, Libya, Tanganyika, the Upper Nile Valley, South Africa, and Ethiopia. At the east end of the hall are two sculptured figures of African tribesmen by Malvina Hoffman; at the west end is a pair of huge elephant tusks.

Oceanic Birds ***(Whitney Memorial)***

SECOND FLOOR, SECTION 19

This hall is designed to give the visitor the illusion that he is situated in the middle of the Pacific, as scenes of island bird life from all parts of the great ocean pass before his eyes. Suspended overhead in the sky are oceanic birds in flight. Around the perimeter of the hall, twenty large groups show the birds that inhabit the islands of the Pacific Ocean, from those of the Bering Sea, in the north, to those of Hawaii, Fiji, New Zealand, and beyond. Most of these ex-

Moa habitat group, Hall of Oceanic Birds



hibits are based on the great collections made by the Whitney South Sea Expedition during the 1920's.

Primates

THIRD FLOOR, SECTION 2

This hall, at present in the process of renovation, shows some of the diverse types of animals that belong to the same order as man, the Order Primates, and displays some of their modifications and adaptations. On exhibit are gorillas, chimpanzees, gibbons, baboons, marmosets, South American monkeys, and Old World monkeys. Of special interest is the case on the south wall containing the orangutans. This was the first group of large mammals to be displayed in the Museum (1881) and represents the first attempt to show a large mammal in its native habitat.

North American Birds ***(Chapman Memorial)***

THIRD FLOOR, SECTION 1

This hall is in the process of renovation after sixty years of public life and will be reopened in 1962. It is situated in the oldest part of the museum and was started in 1899 by the late Dr. Frank M. Chapman, the noted ornithologist. The backgrounds for the original groups were painted by outstanding artists of the day, including Louis Agassiz Fuertes whose mural, "Flamingo Colony in the Bahamas," is at the north end of the hall.

Some of the groups have been replaced by new ones, but many are merely being refurbished. Among them are the Labrador duck, the almost extinct whooping crane, the bald eagle, and the wild goose. A new mural at the north end of

the hall depicts the bird life around the famous tar pits of Rancho La Brea near Los Angeles, as it might have appeared about ten million years ago.

Peoples of Asia

THIRD FLOOR, SECTION 6

The peoples of Asia form the largest population group on earth. They inhabit its largest land mass and tend to concentrate along the southern (India-Southeast Asia) and eastern (Japan, China) margins, where water and soil combine to provide a good basis for rice and other grain agriculture. The majority of the exhibits in this hall relate to the sedentary peoples of these regions. Most of the Chinese collection was gathered before 1912 and illustrates crafts and industries that have largely vanished.

Two cultures of interior Asia are fully exhibited in this hall. The first is the culture of the people of Tibet, a high, inhospitable plateau surrounded by mountains. Herding is the principal source of food and clothing, and Lamaism, a form of Buddhism, provides religious, social, and artistic outlets. The Siberian tribes inhabit forest and tundra lands in northeastern Asia and live largely by herding, supplemented by hunting and fishing. The Siberian collections were made before the Russian Revolution and are the largest and most complete outside the Soviet Union.

Peoples of Africa

THIRD FLOOR, SECTION 8

The Hall of the Peoples of Africa was designed many years ago, not so much to illustrate the way the peoples of Africa live, as to show the excellence and diversity of their crafts.

One can follow the geographical sequence by starting at the right-hand (or east) side, which deals with tribes from south, east, and central Africa, crossing the far end of the hall, which bridges the continent from east to west across the Congo and coming down the left (or west) side of the hall, where the western and Sudanic tribes are represented, and ending again at the entrance (or south side) with South Africa.

Most striking is the functional nature of art in Africa. Even in the areas of richest wood carving, the Congo and West Africa, one also finds every available material worked to its maximum potential, whether it be pottery (Mangbetu), ivory (Congo and West Africa), gourds (east and west), or metal (west). Textiles equally, whether of cotton, fiber, or bark, are worked with infinite care and patience.

The Biology of Mammals

THIRD FLOOR, SECTION 3

The classification, adaptations, and evolution of mammals are displayed here. Dominating the center of the hall is a life-sized model of a sulphur-bottom whale, seventy-six feet in length, one of the great attractions of the Museum. In the cases along the walls are exhibits that show the major divisions (orders and families) of the Class Mammalia, with information on the characteristics of each group and its probable evolutionary history. Interspersed among the exhibits about the classification and relationships of mammals are others that illustrate convergent and parallel evolution; modification for locomotion; albinism and melanism; adaptation of the front and hind limbs; modification of teeth; variation in stomachs and brains; and types of bone structure. On the south side of the hall is the skeleton of Jumbo, the famous elephant, and a mounted lion, the

first specimen to be catalogued in the Museum's mammal collections which now number approximately 200,000 specimens.

Insects

THIRD FLOOR, SECTION 5

This hall contains exhibits on the origin and relationships of insects: their life cycles, anatomy, classification, and associations with plants and with other animals, including man. Enlarged models of the insect vectors of some human diseases—such as malaria and yellow fever—highlight this section. There follow exhibits on social insects, on insect collecting, and on the evolutionary problems of variation, specialization, and mimicry as illustrated by insects. In wall cases are displays on silk, on the webs of spiders, and on the identification of insects found in local gardens.

Window cases in the middle of the hall contain habitat groups of some familiar insects, enlarged models of insect heads, and exhibits touching upon insects in the arts and in other human activities.

Reptiles

THIRD FLOOR, SECTION 9

Specimens belonging to the major surviving groups of these ancient animals illustrate their diversity in size, form, and habits. They comprise turtles, crocodilians, the tuatara, lizards, and snakes among the reptiles; and caecilians, salamanders, and frogs among the amphibians. Other displays exemplify structural peculiarities, modes of reproduction, parental care, and protective devices. Specimens, models, and habitat groups illustrate such biological prin-

ciples as natural selection, adaptations, parallel evolution, and concealing coloration.

Additional exhibits explain various aspects of the lives of amphibians and reptiles: how they obtain their food, how they change color, how they attract mates, how they avoid predators, and how they move. Ways in which reptiles influence the activities of man are emphasized in exhibits dealing with the treatment of snake bite, the commercial exploitation of products derived from reptiles, and the superstitions, and egregious notions concerning snakes.

African Mammals

THIRD FLOOR, SECTION 13

African habitat groups, additional to those on the second floor, are on display in this gallery, from which an excellent view can also be obtained of the elephants in the main hall below. The exhibits include groups showing rhinoceroses, antelopes, chimpanzees, hunting dogs, leopards, jackals, monkeys, and ostriches.

Ice Age Mammals

FOURTH FLOOR, SECTION 2

The evolution of the Proboscidea from their earliest known beginnings in Africa to the huge mastodons and mammoths of Ice Age deposits over most of the world is shown in this hall. Also on display are fossil skeletons of a cave bear, dire wolf, saber-toothed cat, buffalo, and bison. The bison is of the type once hunted in North America by Folsom man.

An unusual display depicts conditions at the close of the

Ice Age at Rancho La Brea, California. Several giant sloths have become mired in tar, and a saber-toothed cat and large wolf are about to meet the same fate. Large murals depict various Ice Age scenes.

Modern Horses

FOURTH FLOOR, SECTION 2

This small exhibit illustrates the great modifications that man has brought about in adapting the horse to man's various needs. Included are skeletons of several famous race horses, as well as animals akin to the horse, such as the donkey and Grévy zebra.

Minerals and Gems (Morgan Memorial)

FOURTH FLOOR, SECTION 4

The collections in this hall include gems and ornamental stones, exhibited in the vertical cases along the center aisle; a systematic mineral collection, arranged according to chemical composition in the table cases; large and spectacular mineral specimens, exhibited in the wall cases; and various special displays in the vertical cases interspersing the table cases. The gem collection is outstanding for its quality and variety. Especially noteworthy are the fine collection of varicolored sapphires, the aquamarines and morganites, the tourmalines, and the opals. The mineral collection is remarkably comprehensive, containing over ninety per cent of all known minerals. Of the special displays, the case of New York City minerals, on the right at the entrance, shows many fine specimens collected on Manhattan Island. The vertical cases in the center of the



Kunzite crystal and gems, Hall of Minerals and Gems

hall contain a selection of fine carved jades from the William Boyce Thompson collection.

Late Mammals (Osborn Memorial)

FOURTH FLOOR, SECTION 3

The extinct mammals presented here are generally more modern in appearance than those in the Hall of Early Mammals. A series of skeletons demonstrates the evolution of horses. A large series of skulls and a skeleton of a titanothere are displayed. The history of the rhinoceroses, tapirs, and chalicotheres is shown. Various other groups, such as the camels and the rodents, are the subjects of special exhibits.

Several exhibits demonstrate the evolutionary processes of convergence, parallelism, isolation, migration, and adaptive radiation. A section of one of the richest concentrations of fossil mammal remains ever found, the Agate Fossil

Quarry, Nebraska, can be seen near the center of the hall. Another display exhibits skeletons of nearly a dozen small camels which were buried together.

Large murals depict four typical mammalian assemblages ranging in age from early Cenozoic to late Cenozoic times. A composite geologic section accompanies each mural.



Early Mammals

FOURTH FLOOR, SECTION 5

The interrelationships and early evolution of the mammals are emphasized in this hall, not yet completed. Many of these animals persisted nearly unchanged through long periods of time. The exhibits deal with the origin of mammals, their evolution through Mesozoic times, and their later diversification in the Cenozoic. Dioramas depict Paleocene and Eocene lake life from Wyoming, Colorado, and Utah.

The evolution of primates, insectivores, taeniodonts, tillo-donts, dermopterans, and bats is demonstrated by three exhibits. Many of these groups have living members, such as man himself, but they are especially characteristic of the early Cenozoic. Archaic carnivores and herbivores that have no living descendants can also be seen.

There are exhibits demonstrating fossilization, fossil collecting, preparation, and interpretation; and principles of historical zoogeography. The evolution of reptiles other than dinosaurs is demonstrated in a separate section.

Late Dinosaurs

FOURTH FLOOR, SECTION 9

The Hall of Late Dinosaurs contains what is perhaps the most comprehensive display of Cretaceous dinosaurs in existence, showing in detail the various duck-billed, armored, horned, and predatory dinosaurs, which were so numerous during the final period of Mesozoic history. Of

Tyrannosaurus rex, Hall of Late Dinosaurs

particular interest is a natural mummy of a duck-billed dinosaur, showing details of the skin, and the large series of Protoceratops skulls, representing various stages in the growth of this little dinosaur from a newly hatched baby to an adult. In addition, the eggs and nests of eggs of this dinosaur are displayed. The hall is dominated by the magnificent skeleton of the gigantic meat-eating dinosaur Tyrannosaurus, on the center island, together with two skeletons of a duck-billed dinosaur and the skeleton of a horned dinosaur, all contemporaneous with the giant carnivore. The hall also contains a small exhibit outlining the evolution of the pterosaurs, or flying reptiles.

Early Dinosaurs

FOURTH FLOOR, SECTION 13

Jurassic dinosaurs are strikingly typified by the giant brontosaurus skeleton and the accompanying allosaur and stegosaurus skeletons, on the central island in the hall. Here, too, are actual brontosaurus footprints from Texas. Exhibits near the entrance (east end) show the evolution of the dinosaurs and their adaptations to different modes of life, and drawings above the wall cases picture various reptiles that lived before and during the Age of Dinosaurs.

At the far (or west) end of the hall is a display showing the evolution of the amphibians, in which the transition from air-breathing fishes to the first land-dwelling vertebrates is indicated, and the dominance of large, heavy-skulled amphibians during late Paleozoic and early Mesozoic times is emphasized. There are also exhibits of various early reptiles of Permian and Triassic age. The Triassic history of reptilian evolution is continued with skeletons of some of the earliest dinosaurs.

Fossil Fishes

FOURTH FLOOR, SECTION 13

The history of the fishes is recorded in this alcove by a series of synoptic exhibits beginning with a family tree situated to the north of the entrance. From right to left, the next exhibit includes the oldest known vertebrates, the jawless fishes, or ostracoderms, and the first jawed fishes, or placoderms. In the following case the long history of the sharks and ratfishes is illustrated. The diorama includes reconstruction of fishes that lived in a lake in Scotland 300 million years ago. The story of the ray-finned fishes is exhibited in the next case. The lobe-finned fishes and the origin of the first land vertebrates are considered in the exhibit to the south of the alcove entrance.

Suggestions for a Brief Visit

If this is your first visit to The American Museum of Natural History, and your time is limited, we suggest that you try to see some of the exhibits for which the Museum is most noted. They are listed according to floors, and, with the aid of the floor plans on page 12, they can be easily located. Even so, to see all of these displays on one visit would be a formidable undertaking. Instead of trying to see all the Museum on your first trip, come again and again to enjoy the countless exhibits that cannot be seen at one time.

FIRST FLOOR

Haida Canoe, 64½ feet long, made from the trunk of a single cedar tree . . . 77th Street Foyer, Section 2

Hall of the Biology of Man, Section 4, a completely new hall devoted to the evolution, structure, and function of man as an organism

Life in the Soil, showing a part of the world we rarely see . . . Hall of Man and Nature, Section 3

Hall of North American Forests, Section 5, an explanation of the forest as a natural community of trees, plants, and animals

Life-sized Model of Latimeria, the coelacanth fish, long thought to be extinct; **Shrimps, Lobsters, and Crabs**, a fascinating exhibit on a specialized and delectable subject . . . Hall of Fishes, Section 9

A Drop of Pond Water, magnified 1,000,000 times; and **Glass Models of Invertebrates**, exquisite enlargements of microscopic organisms . . . Hall of Living Invertebrates and Ocean Life, Section 10

Reconstruction of the Extinct Dodo, that bird of fable and crossword puzzles; and **Courtship of Birds**, a recently completed exhibition . . . Hall of the Biology of Birds, Section 19

Hall of North American Mammals, Section 13, twenty-nine habitat groups showing a wide variety of mammals, both large and small

Totem Poles and **Carved Spoons**, outstanding examples of the art of the Northwest Coast Indians . . . Hall of Indians of the Northwest Coast, Section 1

SECOND FLOOR

The New Forest Group, a section of Hampshire, England, where Theodore Roosevelt and Lord Grey went on a bird walk in 1910 . . . Hall of Birds of the World, Section 2

Olmec Head, cast from the original gigantic stone head that

lies half buried in the jungles of southern Veracruz . . . Hall of Mexico and Central America, Section 4

Shrunken Heads of the Jivaro Indians and the "**Copper Man**" Mummy . . . Hall of Indians of South America, Section 8

Sounds of a Peruvian rain forest, including howling monkeys and falling trees . . . Hall of Men of the Montaña, Section 3

Models of Oil-producing Fields, beautifully made to scale, both above and below the ground . . . Hall of Oil Geology, Section 1

Corner Gallery, Section 5, where special exhibitions are held

Indian Leopard Habitat Group, a dramatic representation of the Indian jungle . . . Hall of South Asiatic Mammals, Section 9

Theodore Roosevelt Memorial Hall, Section 12, with its 100-foot ceiling and colorful murals depicting episodes in the life of the twenty-sixth President of the United States

Man in Space, a dramatic and timely exhibit featuring a model of the Project Mercury Spacecraft and a model of the space laboratory ARIES (Authentic Representation of an Independent Earth Satellite) . . . Roosevelt Memorial Hall, Section 12

Hall of African Mammals, Section 13, designed and partly executed by the renowned Carl Akeley

Reconstruction of a Moa, a long-extinct bird that once lived in New Zealand; **Birds of the Galapagos Islands**, a way station on the voyage of the "Beagle"; **Birds of Paradise**, exotic and magnificent . . . Hall of Oceanic Birds, Section 19



Temporary exhibit, MAN IN SPACE, Theodore Roosevelt Memorial

THIRD FLOOR

Life Sculpture, copies of the recently unearthed heads from Nigeria; **Ivory Carvings** from the Congo . . . Hall of Peoples of Africa, Section 8

Sulphur-bottom Whale, a life-sized model of one of the largest animals that ever lived . . . Hall of the Biology of Mammals, Section 3

FOURTH FLOOR

"Star of India," largest star sapphire in the world . . . Hall of Minerals and Gems, Section 4

Murals of Prehistoric Life, well-known restorations by Charles R. Knight . . . Hall of Ice Age Mammals, Section 2

Fossil Camels, reconstructed as they were found, embedded in rocks . . . Hall of Late Mammals, Section 3

Fossil Skull of ancient giant crocodile . . . Hall of Early Mammals, Section 5

Tyrannosaurus rex, largest of the meat-eating dinosaurs;
Dinosaur Eggs, fossilized eggs of Protoceratops, found in Outer Mongolia . . . Hall of Late Dinosaurs, Section 9

Dinosaur Tracks, the actual tracks of a brontosaur and an allosaur, excavated in Texas and reassembled here, together with reconstructions of the skeletons of these dinosaurs . . . Hall of Early Dinosaurs, Section 13

Publications

Publications of The American Museum of Natural History fall into two categories: popular and technical.

Popular publications consist of

Natural History, a nature magazine for adults

Junior Natural History, a nature magazine for children

These can be purchased in the Museum Shop, first floor, Section 2.

Technical publications consist of

Bulletin of the American Museum of Natural History, papers on the results of scientific research, exploration, and collections

Anthropological Papers of the American Museum of Natural History, researches in the study of man

Memoirs, monographs

American Museum Novitates, shorter scientific articles and descriptions of new forms

Micropaleontology, a quarterly journal for the student

of micropaleontology (purchased through the Department of Micropaleontology)

Curator, a quarterly magazine for the museum profession (purchased in the Museum Shop)

Contributions of the American Museum-Hayden Planetarium, reprints of important articles in the area of astronomy (purchased through the American Museum-Hayden Planetarium Library)

With the exception of Micropaleontology, Curator, and Contributions of the American Museum-Hayden Planetarium, the above publications can be purchased through the Library of the Museum, fourth floor, Section 1.

Lectures and Courses

Free Gallery and Slide Talks for Adults are available, fall and spring, on specific aspects of the social and natural sciences. For schedule, write to Adult Education Division or call TR 3-1300, Ext. 445.

Free Motion Picture Programs on natural science subjects are held on Wednesdays for adults only, and on Saturdays for adults and children, from October to May at 2:00 p.m. Consult the monthly CALENDAR OF EVENTS for place and subject.

Adult Lecture Series are presented in the fall and spring in the various fields of natural and social sciences, by scientists and other outstanding specialists. A brochure listing topics and admission fees can be obtained by writing to Adult Education Division or by calling TR 3-1300, Ext. 445.

Planetarium Courses: The American Museum-Hayden Planetarium conducts a series of courses during the fall and spring for which nominal fees are charged. The series in-

cludes introductory and advanced courses in astronomy, celestial navigation, meteorology, and space science. A bulletin providing information and a registration blank is available upon request.

Membership

There are more than 120,000 members of The American Museum of Natural History who help to support the Museum's work in science and in education. The continuance and growth of this work are dependent, in large measure, on these contributions.

Membership blanks can be obtained in the Museum Shop, the Members' Room, or at any of the Museum's entrances. Associate, Annual, and Family Memberships continue for a full year from the date on which annual dues are paid. Life Memberships and those of a higher category endure throughout the lifetime of the member. The various classes of membership, with the dues payable, and the privileges accorded to each class, are:

Associate	yearly \$5.00
Annual	yearly \$15.00
Family	yearly \$25.00
Life	single contribution \$500.00

Details of Patron, Benefactor, and Founder classes are available upon application.

An Associate Membership card entitles one to receive an annual subscription to NATURAL HISTORY magazine; a discount of ten per cent on all purchases in the Museum Shop and the Planetarium Book Corner; use of the Members' Room; and, on request, a membership certificate, the monthly CALENDAR OF EVENTS, and the ANNUAL REPORT.

An Annual Membership card entitles one to receive all the above privileges, and in addition: admission to ten evening Members' Lectures and ten Lectures for Children of Members on Saturday mornings, plus one extra guest ticket for all evening lectures, two extra guest tickets for all Saturday morning lectures, two free admissions to the American Museum-Hayden Planetarium, and ten free tickets for the Museum's parking lot.

A Family Membership card entitles one to receive all the benefits of the Annual Membership, plus three extra guest tickets for the evening lectures. This membership has been established to make it possible for parents to bring their children to the Members' Lectures.

Life Members receive all the benefits of the other memberships, plus unlimited admission, upon presentation of Life Membership card, to the Sky Shows at the American Museum-Hayden Planetarium.

Junior Membership is available in either of two classes: Explorers (\$2.50 yearly), which includes ten issues of JUNIOR NATURAL HISTORY and a membership card.

Adventurers (\$5.00 yearly), which includes all Explorer privileges, plus admission to ten Saturday morning film and lecture programs.



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