



THE AMERICAN MUSEUM OF NATURAL HISTORY

67TH *Annual Report*

FOR THE YEAR 1935

ISSUED MAY 1, 1936



SERIAL SCIENTIFIC PUBLICATIONS

NATURAL HISTORY, Journal of The American Museum:

Volumes I-XXXVI, 1900-1935. An illustrated monthly magazine, issued monthly, excepting July and August, devoted to records of scientific research, exploration and discovery, of the development of museum exhibitions and of museum influence on education. Contributors include the scientific staff, explorers and Members of the American Museum and other eminent naturalists. Issued to all Members as one of the privileges of membership, or on subscription \$3.00.

BULLETIN of The American Museum:

Volumes I-LXVIII, 1881-1935. Scientific records of explorations and collections of the Museum, in Geology, Palaeontology, Mineralogy, Zoology, and, originally, Anthropology. Distributed in exchange to over 400 libraries and institutions of science and learning throughout the world. \$5.00-\$10.00 per volume.

ANTHROPOLOGICAL PAPERS of The American Museum:

Volumes I-XXXV, 1906-1935. Discoveries, explorations and researches in Archaeology, Anthropology and Ethnology among the extinct and living races of man. Distributed to over 300 institutions and scientists throughout the world. 25c.-\$5.00 a part.

AMERICAN MUSEUM NOVITATES:

Nos. 1-821, 1921-1935. Devoted to publication of preliminary announcements and descriptions of new forms in the fields of Zoology, Palaeontology, Geology and Mineralogy. 15c. each.

MEMOIRS of The American Museum:

Volumes I, III, VI and IX, 1893-1909; contributions by Whitfield, Osborn, Beutenmüller, Matthew, Lumholtz, Emmons, Matthews, Brown, McGregor, Hussakof, Dean.

Volumes II, IV, V, VII, VIII and X-XV constitute the Jesup North Pacific Expedition Series.

Volumes I-III of the New Series, 1912-1921, devoted to Zoology and Palaeontology, \$2.00-\$12.00 per part. This terminates the serial form of publication. Beginning with the forthcoming work by Henry Fairfield Osborn, "Evolution of the Proboscidea," the Memoirs will be issued without serial numbers.

SPECIAL SCIENTIFIC PUBLICATIONS

A REVIEW OF THE PRIMATES:

By Daniel Giraud Elliot, 1913. A monographic treatise in three quarto volumes. Paper, \$35.00; morocco, \$45.00.

BIBLIOGRAPHY OF FISHES:

By Bashford Dean, 1916-1923, covering the entire literature of fishes to 1914 and embracing 45,000 titles arranged alphabetically by authors. 3 volumes, \$15.00.

THE BASHFORD DEAN MEMORIAL VOLUME:

Article I, 1930, \$1.25; Article II, 1931, 60c.; Article III, 1931, \$1.75; Article IV, 1932, \$2.50; Article V, 1933, \$1.00.

(Publications continued on third page of cover.)



1857 HENRY FAIRFIELD OSBORN 1935



THE AMERICAN MUSEUM OF NATURAL HISTORY

67TH *Annual Report*

FOR THE YEAR 1935

"For the purpose of establishing and maintaining in said city a Museum and Library of Natural History; of encouraging and developing the study of Natural Science; of advancing the general knowledge of kindred subjects, and to that end of furnishing popular instruction."

THE CITY OF NEW YORK
Issued May 1, 1936

CONTENTS

	PAGE
I. Report of the President.....	1
II. Scientific and Educational Progress.....	7
New Exhibitions	7
Preparation	14
Education	15
Numbers Reached by the Museum and Its Extension Educational System	16
Library and Publication.....	20
Research and Allied Activities.....	22
Expeditions	30
North America	30
South America	32
Europe	33
Asia	33
Pacific Islands	34
III. Administration, Operation, Building.....	37
Public and Press Information.....	40
Accessions	41
IV. Financial Administration	45
Budgetary Funds of 1935.....	45
Summary of All Accounts.....	45
Summary of Receipts and Disbursement for All Purposes, 1935..	46
Permanent Endowment Fund, 1935.....	47
Contributions for General Purposes, 1935.....	49
Central Asiatic Expedition Fund.....	54
Financial Statement, 1935.....	55
Treasurer's Report of the Pension Fund.....	77
V. Membership and Personnel.....	83
The Board of Trustees.....	84
The Administrative and Scientific Staffs.....	84
VI. Appendix	91
Administration of the Year 1935.....	91
Board of Trustees.....	91
Standing Committees of the Trustees.....	92
General Departmental Committee of the Trustees.....	92
Special Committees of the Trustees.....	93
Administrative and Scientific Staffs for 1935.....	94
Officers of Administration	94
Administrative Committees	94
Scientific Staff	95
Corresponding Foreign Membership.....	100
The American Museum of Natural History.....	101
Founders and Incorporators of 1869.....	101
History	101
Permanent Endowment	102
Form of Bequest	102
Gifts and Bequests Exempt from Taxation.....	102
Membership, Contributory and Honorary.....	102

In the preparation of this report, Miss Clara Mabel Beale has been responsible for the assembling and editing of the material, and Miss Beale has been ably assisted by Miss Addie Hill Summerson. We desire to express our sincere appreciation for the splendid service these assistants have rendered.

SIXTY-SEVENTH ANNUAL REPORT

*To the Trustees of
The American Museum of Natural History
and to the Municipal Authorities of the City of New York*

BY FREDERICK TRUBEE DAVISON, President

PROFESSOR HENRY FAIRFIELD OSBORN died on the sixth day of November, 1935. His administration as President from 1908 to 1933 was one of the great achievements of modern American life. The position which this institution holds in America and in the world is due very largely to his inspiring leadership and extraordinary abilities, and his loss will be profoundly felt by his devoted associates and his countless friends.

No tribute in words could possibly be an adequate appreciation of what he meant to the Museum. However, in a feeble effort to express their sorrow, the Trustees passed the following resolution on November 12:

RESOLVED, That the Trustees of The American Museum of Natural History desire to record their profound sorrow at the loss sustained through the death of their colleague

HENRY FAIRFIELD OSBORN

who passed away on November 6, 1935, and also wish to express their appreciation of his outstanding and invaluable services to the Museum, to science and to the world.

As President for a full quarter of a century, Professor Osborn was our leader, guide and inspiration in shaping policies and providing for the development of the Museum. He carried into this office all of his finest qualities of character—unquenchable optimism, strong determination, constructive ability, appreciation and a broad conception of the relation of science to human affairs. His administration witnessed unprecedented development in all branches of the Museum—physical, financial, scientific and educational.

As a man of science, his contributions even surpass his notable administrative achievements. He was the sponsor and father of the Department of Vertebrate Palaeontology, which is now without a peer. And, while this science was his greatest specialty, he had an astounding grasp of the Museum

as a whole and strove with dynamic energy, foresight and judgment to make it preeminent.

He had a facile pen, and his writings are of such scope, variety and magnitude that they are in themselves monumental. He stands as a great popularizer of natural history. At the same time he had a full realization that the foundation of popular science is pure science and he never swerved from his determination that the Museum should be as renowned for its scientific researches and explorations as for its popular exhibits and educational work. This devotion to his scientific ideals permeates all of his work as Curator, as teacher, as author and as administrator.

The Museum was foremost in his thoughts, and his world-wide travels, his studies of all the great museums, his personal presence at scientific conventions and meetings of learned societies brought increased honor and prestige to this institution.

As a citizen the world owes him a debt of deep gratitude. He was patriotic, deeply interested in problems of human welfare, a zealous advocate of broad cultural foundations and generous of his time and thought in supporting conservation movements. He had a deep spiritual nature, was a devout churchman, and an outstanding champion of the thesis that there is no real conflict between science and religion, between the laws of nature and the laws of God.

Generations to come, as well as his contemporaries, will honor him for all time as an eminent scientist, an inspiring teacher, and a virile personality.

As mentioned in last year's report, Dr. George H. Sherwood retired as Director because of ill health. For more than thirty-two years Doctor Sherwood had served the Museum, having held the posts of Assistant Curator in the Department of Invertebrate Zoology, Curator of the Department of Education, Assistant Secretary and Assistant Treasurer, Executive Secretary, Acting Director and Director. In recognition of his eminent services to the Museum, Doctor Sherwood was appointed Honorary Director and was continued as Curator of the Department of Education.

Dr. Roy Chapman Andrews, Curator of the Department of Asiatic Exploration and Research, who has been associated with the Museum since 1906, was appointed Director, and has continued to bring to his position his talents as administrator and scientist.

Mr. Wayne M. Faunce, Assistant Executive Secretary and Assistant Director, was appointed Vice-Director and Executive Secretary. He has displayed wisdom and understanding in the technical problems presented to him throughout his connection with the Museum.

Appreciation is also due for the work of the Bursar, Mr. Frederick H. Smyth, who, with his staff, for many years has worked diligently and efficiently in keeping the financial records of the Museum in order.

As for several years, the Members of the Museum have been generous contributors, not only through their membership fees, but through the special contributions that so many of them have made toward the balancing of our budget.

The contributions from salaries of employees have also assisted in enabling the Museum to maintain activities that otherwise would have been curtailed.

I am happy to report that contributions, the closing of ten halls each day, the reorganization of the staff, and other economies have enabled us to balance the budget. Revenues from the Hayden Planetarium cannot be used for Museum purposes, as they must be devoted to operation and to paying the \$650,000 loan from the Reconstruction Finance Corporation.

The number of individuals attending the exhibits, lectures, classes, concerts and meetings sponsored by the Museum, and those taking advantage of the motion picture and lantern slide service, circulating collections, Planetarium and Bear Mountain Nature Trails, reached a total of more than 41,600,000. This is 6,000,000 more than in 1934. The average for each day to take advantage of some of the facilities offered by the Museum was about 114,000.

The latest additions to the building are the African Wing (1932), the South Oceanic or Whitney Wing (1933), the Theodore Roosevelt Memorial (1935), and the Hayden Planetarium (1935).

The preparation work in the African Hall, Akeley Memorial, continues, and plans for the North American mammal exhibits for the first floor of the African Wing and for the Jurassic Dinosaur Hall on the fourth floor have progressed.

The Whitney Wing is now occupied by the Department of Birds, and plans are being developed for exhibits on the first floor, while on the second floor, which will be known as the Whitney Memorial Hall, several groups are in course of preparation. One of the most important events of the year was the unpacking of the Rothschild collection of birds, and the beginning made on the cataloguing. Progress is being made as rapidly as possible toward making this collection available for study.

The Theodore Roosevelt Memorial was structurally completed in 1935, and the dedication was planned to take place in January, 1936.

Later this great memorial building will be turned over to the City of New York for operation through the Museum.

The Hayden Planetarium was opened to the public on October 3, and more than 300,000 persons have attended the demonstrations of stars and planets by the Zeiss instrument, accompanied by lectures, and have viewed the exhibits in the building with great interest. Free admission is given to New York City schools, high schools and municipal colleges. The inspiration derived from the study of astronomy has been enhanced, and general interest in this vast subject has been increased through the addition of this remarkable structure and mechanism as a part of the American Museum. The first demonstration was started by the action of a cosmic ray, through the detector lent by Columbia University. Through the cooperation of the United States Weather Bureau and the Radio Marine Corporation of America, the Planetarium was able for several days to display the newest radio device for furnishing weather information to transatlantic liners.

As a result of studies made by the Trustees in the latter part of 1934, a substantial reorganization of the Museum was brought about in 1935. Fundamentally this was necessary in order to effect economies, and it eventually carried with it many painful personnel problems because of the abolition of some positions, and the retirement of several employees on pension. Nevertheless, this major operation was accepted by the entire personnel with the fine loyalty which the experience of many years has so consistently demonstrated, and every possible effort was made to see to it that each individual who was adversely affected was cared for in one way or another.

Some amendments were made in the Constitution and By-Laws, to conform to changes in the administrative and financial procedure, which had been approved by the Trustees.

After careful consideration, the printing plant was reduced to a job press. The printing shop has never been large enough to attend to all the printing required, and with the increase in membership the edition of *Natural History* became too large to handle. The job work alone requires the entire attention of a fair-sized plant.

In connection with the reorganization, a Dean of the Scientific Staff and a Secretary of the Council of Heads of the Scientific Departments were elected.

The field work of the Whitney South Sea Expedition was brought to an end, a project extending over fifteen years. It was made possible through the generosity of Mr. Harry Payne Whitney.

The Sage West China Expedition, 1934-1935, brought back more than 2,200 mammals from the Province of Szechuan.

Other important work in the field, financed by special funds, is taken up in the report of the Director.

A number of important gifts have been received.

A Foucault Pendulum (proof of the rotation of the earth) was presented by Mr. A. Cressy Morrison.

Mr. W. B. Whitney will deposit a collection of Tibetan religious objects, and Mr. Suydam Cutting has given the amount necessary for casing them.

Mr. Frederick F. Brewster and Dr. Leonard C. Sanford presented the Brewster-Sanford Collection of South American Birds, 7,853 specimens. The Brooklyn Museum presented 6,583 bird skins and some nests and eggs, also 766 skins and 776 skulls of mammals from North and South America.

Other important accessions are mentioned on page 41.

For eight years the Bear Mountain Nature Trails, Trailside Museums and zoological collections had been maintained and operated by the American Museum and the Commissioners of the Palisades Interstate Park. The New York State officials considered the work so valuable that a State appropriation was provided in 1935, and since July 1 the work has been financed through this appropriation. The number of visitors was greater than ever before, amounting in 1935 to 400,000.

The year 1935 was one of the most important in the history of the Museum, and it would be pleasant to dwell upon each phase of its expansion, were it not necessary to save the expense of a longer report.

The administration of so great an institution, so that it will meet the needs of the community and of many inquirers without the boundaries of New York City, is a responsibility of considerable proportions, which, however, has been lightened through the loyalty and earnest endeavors of the Board of Trustees, the entire staff, and the Museum's membership and friends.

II. SCIENTIFIC AND EDUCATIONAL PROGRESS

ROY CHAPMAN ANDREWS, Director

In making my report for the first full year as Director of the American Museum, I am impressed anew with the number of activities that are engaged in and the amount of work that is done to gather material for study and exhibition, to keep our collections in good order, to prepare and install new exhibits, and to report upon material that has been studied. It is also forcibly brought to mind, how much work could be done with more funds and individuals to carry out other projects.

The yearly reports of the scientific departments are presented as nearly as possible according to subjects: New Exhibitions, Preparation, Education, Library and Publication, Research, Exploration.

Although endeavoring to present a fair idea of the work of the departments, much has had to be omitted, because of the necessity for economy in the printing of the Annual Report.

NEW EXHIBITIONS

The opening of the Hayden Planetarium marked 1935 as the most important year in the history of the Department of Astronomy, and indeed as one of the outstanding years in the annals of The American Museum of Natural History.

Just before the opening, the meteorites and other astronomical exhibit material, models, paintings and transparencies, were moved to the Planetarium building. New exhibits, including many fine transparencies, murals, historical instruments and models, were added.

The feature attraction of the Planetarium building is its circular projection chamber, on the second floor, with a diameter of 75 feet, and seating 734 people. Suspended above this chamber is a white dome of perforated stainless steel which serves as the screen on which images of the heavenly bodies are cast by the Planetarium projector.

Just inside the main entrance is a mural painting by Charles R. Knight, illustrating the astronomical mythology of North American Indians. In the entrance hall are twelve photo-murals of mythological constellation figures from Bayer dating back to 1603.

Encircling the Planetarium Auditorium is a wide corridor on the outer wall of which are transparencies set in special illuminated boxes, of the finest astronomical photographs from various observatories

of the world. On the inner walls of the corridor are several paintings in oil by the late Howard Russell Butler on astronomical subjects, including a triptych of paintings of total eclipses. There are also paintings of Northern Lights by Leonard M. Davis.

A Copernican Planetarium fills the major part of the first floor. This device shows the solar system, the planets making their revolutions about the sun at their proper relative speeds. On the blue walls surrounding the Copernican Chamber are the twelve signs of the zodiac showing the principal stars and the mythological figures of these constellations—the latter from Bayer's *Uranometria* of 1603, very early authentic drawings of these figures. On the floor of the Copernican Chamber is a beautiful replica of the famous Aztec Calendar Stone. In the corridor surrounding this hall are various other exhibits, including large photographic transparencies of astronomical subjects from various great observatories of the world, and a collection of meteorites including 548 falls. There are also cases containing two loan collections of sundials, astrolabes and hour-glasses. In other cases are replicas of Galileo's telescopes and in addition telescope lenses and other historic instruments made and used by Lewis Morris Rutherford.

A press preview on September 25 featured a trip to the South Pole with Rear Admiral Richard Byrd, the lecturers being Doctor Fisher and Mr. Barton. The formal opening on October 2 was attended by the Trustees and their friends, City, State, and Government officials, those who aided in the construction of the building, representatives of various governments, particularly Germany, noted scientists in the field of astronomy, and representatives of various religious faiths.

Beginning November 21, six lectures were given by Mr. Barton on alternate Thursdays at 6 P.M. in the Planetarium, with the Zeiss instrument, supplemented with lantern slides. Attendance was by subscription only.

Prize-winning posters, chosen from a Planetarium Poster Contest in the New York City High Schools, have been on exhibition in the Planetarium building.

During the Christmas holidays, a world time clock, the invention of Mr. E. R. Fowler, was on exhibition.

Thirty-nine sundials were lent by Mrs. Katharine M. Tomlinson and an Asenglar Zeiss Binocular Telescope was lent by Mr. Charles Bender.

Through the cooperation of the United States Weather Bureau and the Radio Marine Corporation of America, the Planetarium was able for several days to display the newest radio device for furnishing accurate weather information to transatlantic liners. Combined with this exhibition was a comprehensive one of the various instruments used in the collection and study of weather data.

The cockpit of a modern Douglas airliner was also on display for about two weeks, through the courtesy of the Eastern Air Lines.

The Rockefeller Center Observation Roofs displayed, in cooperation with the Department of Astronomy, a Copernican Planetarium and a case of transparencies showing eclipses.

The third of the mural paintings that constitute the triptych over the east entrance of Morgan Hall of Minerals and Gems was completed and set in place by Dr. Will S. Taylor.

The Jonker Diamond, the largest uncut diamond at present known to exist, was, through the courtesy of Mr. Harry Winston, the owner, placed on exhibition for three days in Maxwell Hall.

During the Annual Meetings of the Geological Society of America and the Mineralogical Society of America in December, the Department of Mineralogy displayed in Morgan Hall a series of type crystals, selected from the Bement Collection because they were figured in crystallographic papers by celebrated Nineteenth Century scientists. In many instances, autograph and signed labels and original sketches accompanied these "Classic Type Crystals."

During April and May, when dust storms ravaged the Great Plains area, thirty samples of wind-blown dust and numerous photographs, collected from Nebraska, Kansas, Colorado, Oklahoma and Texas, were presented to the Museum and placed on exhibition.

Mr. Lincoln Ellsworth delivered to the Museum 154 specimens, chiefly invertebrate fossils, of Cretaceous age, which he and members of his 1934-1935 Transantarctic Flight Expedition had collected at Snow Hill, Seymour and Deception Islands, Antarctica. The specimens were identified and placed on exhibition.

When the meteorite collection was transferred from Memorial Hall to the Hayden Planetarium building, Dr. Chester A. Reeds was appointed Research Associate in Meteorites in the Department of Astronomy.

The completion of the exhibits on the south side of the Tertiary Mammal Hall was accomplished.

In the Dinosaur Hall, a mounted skeleton of the small hornless dinosaur *Leptoceratops* was placed on exhibition, and to the Mongolian exhibit was added a group of *Protoceratops* consisting of one previously mounted skeleton, one newly mounted skeleton, and a model of the nest and eggs. A record tusk more than sixteen feet in length, of the Pleistocene elephant *Archidiskodon imperator* from Texas, was placed on exhibition.

A panel mount of a complete skeleton of the large Notoungulate mammal, *Scarrittia*, from Patagonia, has been prepared.

Several Lower Cretaceous dinosaur skeletons to be exhibited in the Jurassic Dinosaur Hall are prepared, including a rare endo-exoskeleton of a low-plated dinosaur related to *Nodosaurus*, and three skeletons of a new Iguanodont type of dinosaur. One of the Sauropod skeletons, from the Howe Quarry, has been well advanced in preparation.

Part of the large collection of minute mammal jaws from the Fort Union of Montana has been prepared, and the collection of the Second Scarritt Expedition to Patagonia was completed early in the year.

The extensive Coral Reef Group in the Hall of Ocean Life has been completed, twelve years from the time of its inception, and is open to the public, final labels and the lighting of the group awaiting completion. Most of the modeling of this group is the work of Mr. Chris Olsen, assisted by Mr. Bruce C. Brunner, under the direction of the Curator, Doctor Miner. Mr. W. H. Southwick, Dr. George H. Childs, and Mr. Herman Mueller have assisted at various times. The Curator takes this opportunity to express his appreciation of the careful and artistic way in which they have carried out his ideas, and the efficient manner in which they have cooperated in making this complicated work possible. It is probably the most extensive and difficult group yet attempted in this Museum, in view of the multiplicity of life presented and the character of the problems involved.

The skylights, which take up the greater part of the ceiling of the Hall of Ocean Life, are being replaced by painted panels representing a blue sky with scattered white clouds, in continuation of Francis Jaques' central panel. Two of the new panels are in place, painted by Chris Olsen.

Preliminary work has been done on a Pearl Fisheries Group, as well as for a Sponge Fisheries Group to form its counterpart.

Work has been started on an exhibition panel to illustrate variation in color of the West Indian sun shell, to amplify the series of exhibits in progress demonstrating striking examples of variation as it occurs under natural conditions.

Mr. Herman Mueller has completed additional units in the series of models to illustrate the comparative anatomy of rotifers.

Doctor Childs has completed two models showing the external anatomy of *Amphioxus*, and has made considerable progress on two additional models to demonstrate its internal anatomy. One set of these is to be placed in the Chordate alcove of the Darwin Hall; the duplicate set is destined for the Department of Ichthyology, to be shown in the Fish Hall. Models of other details have also been started. This series is of considerable importance from a teaching standpoint.

Progress has been made on the revision of the detailed exhibits in the Hall of Insect Life. The six new habitat groups of insects that were completed several years ago are still not on exhibition for lack of glass fronts.

An anatomical model of the Ocean Sunfish (*Mola mola*) has been completed and hung in the Fish Hall. The first unit of an *Amphioxus* exhibit by Doctor Childs, through the courtesy of Doctor Miner, is complete. Other important exhibits and two new groups are in preparation (see page 15).

In the Hall of Reptile Life, an inexpensive method of illustrating interesting facts about reptiles has been developed. Living specimens which bring out some particular point in the natural history of the group have been introduced into the hall. Frogs that hatch fully formed from eggs were shown with the help of a special enlarging machine. Snapping turtles, developing within their egg shells, were revealed by cutting windows in the shells and throwing an image of the embryos on a large mirror. Other exhibits showed the difference between lizards and salamanders and between certain kinds of snakes.

The Crocker Pacific Expedition brought back a series of Galapagos Marine Iguanas in the flesh. Several of these were mounted and added to our Galapagos group, and the group was completely remodeled to better present the social organization of these spectacular saurians.

Exhibits in Experimental Biology have been temporarily installed in the Reptile Hall. Most of these exhibits considered problems of

development and color change. They were illustrated by living models and diagrams.

The Public Health Hall has been rearranged and space and material have been made available for a demonstration of biological principles. Generous assistance from the Works Progress Administration has made it possible to inaugurate a series of dioramas illustrating certain principles of animal behavior. A large model of chameleon, which changes its color when a visitor presses the button, is being built. Two automatic diagrams will demonstrate the mechanism of color change. These are the first of a series of exhibits planned to show many phases of animal biology.

Work has been started on the background for the Alpine group in the Hall of Birds of the World.

Material progress was made during the year in the Akeley Memorial Hall of African Mammals, five groups having been completed in 1935, making a total of eleven ready for exhibition. The African Hall work is further described on page 14.

Two important cetacean skeletons were prepared for exhibition in the Hall of Ocean Life. One of these was the skeleton of the Pigmy Right Whale, *Eubalaena*, and it will be the only complete skeleton of this rare whale on exhibition in America. The other is an excellent skeleton of the genus *Berardius*, one of the toothed whales, 32 feet long.

A start on the Hall of North Asiatic Mammals was made when the group of Giant Panda was begun. The small-scale model was completed, and the animals had been mounted by the close of the year.

The skeleton of a Grévy's Zebra, mounted by Mr. Chubb, was placed on exhibition.

A small-scale model of the giant extinct rhinoceros *Baluchitherium* was made by Mr. John Hope of the Department of Preparation, under the supervision of Doctors Granger and Gregory. A life-sized panel in low relief of this animal is under way.

A life-sized model of a dissected sunfish, made under supervision of Doctor Gregory and Mr. Raven, was completed.

A small but valuable exhibit, showing the wide range of variation in the form of the human third upper molar, was presented by Dr. M. Russell Stein.

A fine series of facial masks of Kachins, Chins, Nagas, Shans and Burmese, made by Mr. H. C. Raven in Burma, was colored and placed on exhibition in the Hall of the Natural History of Man.

In the Asiatic Ethnology Hall, the tower section has been cleared and is ready for the new cases being constructed for the Whitney exhibit of Tibetan religious objects. Mr. W. B. Whitney is donating the collection to occupy this space, and Mr. Suydam Cutting is defraying the cost of casing.

Mrs. Antoinette K. Gordon kindly contributed her services to the rearrangement of the other Asiatic exhibits so as to make room for the Japanese exhibit formerly in the tower section. By condensing the other exhibits, the most important part of the Japanese collection is now on view. Mr. Ichikawa has completed a model showing the manufacture of Chinese pottery according to the ancient method.

In the Mexican Hall has been installed an important new model representing a Mayan temple known as Rio Bec, discovered by Mr. Clarence L. Hay some years ago. This is the most elaborate and beautiful model of a Mayan temple so far constructed. The difficult task of reconstruction and actual modeling was carried through by Mr. Ichikawa.

For the Hall of Prehistoric Archaeology, Curator Nelson completed a series of labels which await printing. Revisions were made in the existing exhibits.

A well constructed model representing the home life among the Chama Indians in Peru was completed and will soon be installed in the South American Hall. The model was constructed by Mr. Nara-hara in the Department of Preparation, under the supervision of Doctor Bassler. A large number of labels were printed and placed.

Our Pacific Islands exhibit has been enriched by a replica of a typical Easter Island statue. The molds for this statue were made under the direction of Doctor Shapiro and stand as a contribution from Mr. Templeton Crocker, who furnished the transportation to the island.

For the Races of Man Hall, Mr. Weill, the artist, has practically completed the painted, life-size figures representing the chief racial types of the world. These have been temporarily installed to test the lighting for the case. There remains to prepare the necessary labels. Plans are being developed for the first case in the series, showing the development of the individual through the chief embryological stages; another case, representing the development of the skeleton, provides X-ray exhibits for different parts of the body.

These are mounted as transparencies, though it remains to provide the necessary lighting. Our chief need in the development of these exhibits is temporary personnel for modeling and color work.

Special attention has been given to the Plains and Southwest Indians Halls. The exhibition cases are undergoing revision and a new set of labels is being prepared. In the Southwest Hall the ethnological exhibits have been condensed and reorganized, giving more space for the prehistoric exhibits. The entire exhibit of prehistoric material was dismantled, and Curator Nelson has undertaken to install it anew. This called for a review of all our archaeological material from the Southwest, a laborious task, the greater part of which was completed during the year. Curator Nelson selected the most important and significant specimens, so that the exhibit will present the types and their chronological relations.

The artist, Mr. Boettger, completed two pictorial charts, one representing the use of the buffalo by the Plains Indians, and the other the use of birchbark by the Woodlands Indians.

PREPARATION

Under the direction of Dr. James L. Clark, the staff of Arts, Preparation and Installation completed five elaborate habitat groups on the main floor of Akeley Memorial African Hall, making a total of eleven ready for exhibition. Intense interest centers around the hall, not only because of its presentation of African game and its association with the name of Carl Akeley, but because the groups are done with a degree of perfection that sets a new high standard for museum exhibition. The five groups completed this year are:

Waterhole.	Gift of Mr. George Eastman.
Lion.	Gift of Mr. and Mrs. G. Lister Carlisle, Jr.
Gemsbok.	Gift of Mr. Arthur S. Vernay.
Bongo.	Gift of Mr. Daniel E. Pomeroy.
Plains.	Gift of Mr. Daniel E. Pomeroy.

On the mezzanine floor, the Wild Dog Group is rapidly coming to completion, thanks to the generosity of Major Max C. Fleischmann in financing its creation.

Mr. Robert H. Rockwell and his assistants mounted three of the African elephants collected by President Davison. Mr. John W. Hope modeled five handsome bas-reliefs of African game, completing the fourteen which are to run as a silvered frieze over the

main floor groups. A large mural outline map of Africa, done in silver lines on a dark green base, showing the locations where the various groups of animals were collected, was painted at the west entrance to the Hall.

For the proposed North Asiatic Hall, the sketch model of the Giant Panda Group, collected by the Sage West China Expedition, was set up and two panda mounted in life size. A number of birds were mounted for the groups planned for Whitney Memorial Hall, and for the Alpine Bird Group, and in connection with the latter, Mr. F. L. Jaques spent two months in the Matterhorn region, collecting accessories and making studies for the background of the group.

For the Oceanic Hall, the background of the Walrus Group was completed and specimens collected by the Byrd Expedition were preserved and placed under preparation.

Other work achieved includes the mural decorations for the Hayden Planetarium and the silhouette of the New York skyline for the rotunda; a miniature habitat group representing the life of the Chama Indians of Peru, their dwellings, boats and implements and activities; a cast of the large and impressive Easter Island statue; the mounting and hanging of three whale skeletons (Killer, Neobalaena and Berardius); and the adoption of the silk screen process for Museum posters, thereby effecting a considerable economy in publicity costs.

Concurrent with these major items, the routine work of the Department covered the preparation of 2,053 skulls, 337 skeletons, 331 study skins, 184 tanned skins and 246 mounts; a large number of casts; repairs on fish and bird mounts; preliminary work on three shark mounts; and miscellaneous labels, charts, maps and diagrams.

The following work in the Department of Preparation is being done for exhibit in the Fish Hall: mount of the Whale Shark (gift of Charles T. Wilson); mount of a Mackerel Shark (gift of Winston Guest); mount of a Man-Eater or White Shark (gift of Francis Low); Blue Marlin Group (gift of Michael Lerner); Tuna Group (gift of Michael Lerner).

EDUCATION

A survey of our educational program in 1935 reveals an amazing record of service to school children, students, teachers, and the general public. Our activities have been more varied and extensive than ever

before. Their effectiveness has been maintained, new features have been introduced, and modifications have been made to meet the needs of the present day.

The program is composed of extra-mural activities and intra-mural activities. The features of our extra-mural service are the circulation of loan collections for nature study, geography, and history; the lending of lantern slides; lending of motion pictures; loans to libraries; lectures in local centers; radio broadcasts; cooperation with the School Nature League; Nature Trails and Trailside Museums at Bear Mountain. The intra-mural activities include lectures in the auditorium for pupils; biology lectures for high school students; Hayden Planetarium demonstrations; exhibition hall talks; exhibition hall guiding; special activity crafts classes; nature trails for Museum halls; classes for teachers in service; cooperation with colleges and universities; activities for adult education groups; activities for Members and their children; and photographic service.

That the Museum is really an important adjunct of the educational system of the city is shown by the statistical record: Ninety-two per cent of the public schools of Greater New York used our facilities, while our total contacts with individuals numbered 41,000,000.

NUMBERS REACHED BY THE MUSEUM AND ITS EXTENSION
EDUCATIONAL SYSTEM

	1931	1932	1933	1934	1935
Lectures to School Children, Classes and Guiding	226,552	220,482	159,538	187,037	216,707
Meetings of Scientific Societies and Other Meetings and Lectures	20,330	23,042	18,528	8,992	15,823
Concerts					85,515
Exhibition Halls.....	882,309	789,741	924,030*	1,141,417*	1,236,921
Planetarium (paid)....					252,612
Planetarium—Classes (free).....					63,104
Total Attendance for All Purposes.	1,129,191	1,033,265	1,102,096	1,337,446	1,870,682
Lectures to Pupils in the Schools.....	8,248	23,006	31,818	28,172	19,980
Reached by Motion Picture Service.....	7,423,708	10,458,181	9,012,628	10,271,806	14,172,633
Reached by Lantern Slide Service.....	17,392,790	17,019,882	17,014,690	17,232,395	18,913,149
Reached by Circulating Collections	2,567,537	3,816,863	4,775,176	5,865,839	6,290,365
Bear Mountain Nature Trails	283,000	300,000	350,000	380,000	400,000
Grand Totals.....	28,804,474	32,651,197	32,286,408	35,115,658	41,666,809

* Includes attendance at concerts.

The opening of the Hayden Planetarium has added a new teaching device to our facilities. Our education department makes all arrangements for visits of classes at the free showings of the Planetarium. In the three months since the Planetarium opened on October 3, the school attendance has been 63,104. Of these a large number visited the Museum on the same day for a Museum program in addition to the Planetarium demonstration. This has led to a considerable increase in the number of classes instructed by our staff.

An outstanding feature has been the success of our Teacher Training Courses, both for teachers in service and for those in training. During the year ten courses have been given at the Museum by members of the scientific staff. The primary object of these courses was to give teachers an opportunity to familiarize themselves with the wealth of objective teaching aids which the Museum possesses and practical demonstrations of how they may be used in the classroom. Special attention was given to the study of exhibits in the Museum halls and their correlation with courses of study in the schools.

In addition to the courses given at the Museum, Miss Farida A. Wiley, assisted by Mr. George Hastings, gave two summer field courses in natural history for teachers, at Farmingdale, Long Island. These were sponsored by the Museum and given under the auspices of New York University, and college credit was allowed. These courses will be repeated in 1936.

We also, in cooperation with the College of the City of New York, initiated an experiment in teacher training which demonstrates the marked advantages our Museum possesses as a laboratory school for teacher training. Small groups of seniors and graduates in the School of Education as a part of their practice teaching were assigned for a four weeks period to the Museum for intensive training in the use of the Museum's materials and facilities. This training also included a study of the Museum exhibits, observation of the class work conducted by Museum instructors, and finally practice teaching of visiting classes.

A third outstanding feature of our year's program was the increase in the number of Exhibition Hall Talks for classes from the public schools. These talks are directly correlated with the classroom work in the schools and are given by members of our teaching staff. The visiting class receives a half hour of instruction with a few specimens for examination in one of the Museum classrooms and then is taken out into the exhibition halls for the examination of the larger col-

lections pertaining to the particular subject. This is intensive instruction of small groups and is one of the most important contributions that our department is making to education.

Another feature of our exhibition hall talks that has met with great popularity and has received much commendation from teachers, principals, and superintendents is our special activities program. This includes instruction in (1) the technique of making miniature groups for geography, history, and nature study, (2) finger painting, and (3) nature crafts. This activity program has been a distinct contribution to progressive education methods.

For eight years the American Museum, through the generous support of Mr. Felix M. Warburg and with the cooperation of the Palisades Interstate Park Commission, had operated the Nature Trails and Trailside Museums at Bear Mountain as a practical demonstration of out-door nature education. The results show that this type of education is very much worth while. New York State officials were so impressed with its value that a State appropriation for maintenance was provided, and since July 1, 1935, the work has been financed through the State appropriation. William H. Carr was appointed director of the Nature Trails and Trailside Museums and the State's support has made it possible to carry on this work throughout the twelve months of the year. The American Museum continues to have general supervision of the operating activities.

For many years the Museum has placed small exhibits as Loans in the reading rooms of the Public Libraries. These supplement loans to the public schools because the librarians call them to the attention of teachers of neighboring schools. These exhibitions stimulate interest in the reading of good books and also induce children and adults to visit the Museum. In 1935, 25 libraries in Manhattan, Brooklyn, Bronx, and Queens were supplied with such collections and approximately 162,777 children and adults profited by them.

The Circulating Nature Collections have been enriched with new exhibits and have had increased use in the schools. The lending of slides and motion pictures has reached new high points both as to material circulated and numbers of pupils reached. The general guiding of classes and adults through the exhibition halls has increased and reflects the popular demand for this service. Thanks to the Jonathan Thorne Memorial Fund, talks to the sight conservation classes have been continued.

Weekly broadcast programs have been given over WNYC which were followed later by talks in the exhibition halls by the broadcasters to "listeners in" who, as a result of the broadcast, visited the Museum for this purpose.

The chief features of the Adult Education Program were (1) a series of lectures and concerts given for the Adult Students Association; (2) lectures by members of the Scientific Staff of the Museum to the Evening Elementary School Students' Association; (3) participation in the discussions and activities of the Adult Education Council of New York.

For the Members of the Museum two courses of evening lectures were provided, two courses of Nature Stories for the Children of Members were given on Saturday mornings, and two courses of special exhibition hall studies for adult members. The Education Department has also met the desire of members for guiding whenever possible.

Reception of visiting classes has improved through the efficient work at the Education Bureau, while the difficult problems in connection with booking so many thousands of children in the Museum program have been well handled in the recorder's office. The total attendance at our intra-mural activities, exclusive of the school children attendance at the Planetarium (63,104) was 216,707. Including the Planetarium free demonstrations, the grand total is 279,811.

The Photographic Division is a service department which is responsible for all the photographic work of the Museum. This includes the making of negatives, prints, enlargements, lantern slides, and transparencies. In addition to supplying the needs within the Museum, thousands of prints are supplied to publishers, authors, students and artists, as well as to schools and colleges. In this distribution, 41 states, the District of Columbia, and 8 foreign countries are represented.

Miss Dorothy A. Bennett, Assistant Curator since 1932, was transferred to the Planetarium in September. She has rendered valuable service in our teaching and especially in carrying on the Junior Astronomy Club. During the year our department staff was strengthened by the appointment of Miss Georgine Mastin as Staff Assistant and of Mrs. Gladys L. Pratt as Associate in Education. Miss Marguerite Newgarden was also appointed to the teaching staff.

We continue to be deeply indebted to Mr. Felix M. Warburg and to Mr. Frederick Warburg whose generous contributions have

made it possible to add to our collections, undertake new projects, and expand essential activities. We wish to express our gratitude to Mr. J. H. McKinley for the valuable instruction in voice culture which has been so helpful to all members of our teaching staff. We desire to acknowledge the valuable services gratuitously given by Mr. Paul B. Mann, Associate in Education, in arranging biological lecture courses for the high schools and in advising us on education policies. We gratefully acknowledge the volunteer service of Mr. Robert Coles who has materially assisted in giving lectures and especially radio broadcasts. We appreciate the voluntary service of the twenty-five boys from the public schools who have served as monitors at the Saturday afternoon lectures. Finally we thank the W.P.A. workers whose assistance has been such an important factor in maintaining our various activities.

LIBRARY AND PUBLICATION

No event of outstanding importance characterized 1935. The library has continued its various activities, and has devoted as much time as possible to the cataloguing of the Sportsman's Library received last year. We are glad to report substantial progress in this undertaking. We have continued to cooperate with the W.P.A. project, sponsored by the Music Branch of the New York Public Library, on "A Bibliography of the Dance, being a research into the anthropological, ethnological and religious origins of the dance." There have been from three to five workers assigned regularly to use the Museum Library. Another W.P.A. project on "Geological Research," under the direction of Brooks F. Ellis, has made extensive use of the Library resources. There has been a steady flow of inter-library loans to this project.

Through the assistance of a worker supplied by the W.P.A., the Library has been enabled to begin the sorting, classifying and cataloguing of the signed autograph letters to George N. Lawrence, which were recently transferred to the Library from the Department of Ornithology. These are proving an interesting contribution to the early history of American ornithology. It is hoped that this valuable assistance will be continued long enough to permit the cataloguing of the early entomological correspondence in our possession.

It is a pleasure to report that our budget permitted the purchase of a greater number of recent monographs than in 1934. Beginning

in September, the income from the Ralph Winfred Tower Memorial Fund reverted to the Library, and provided the necessary funds for the acquisition of urgently needed volumes.

During 1935, the number of books bound was much lower than in many years. This may have been due to the upsetting of routine caused by the general reorganization. In June, two workers were given to the Library for its exclusive use. It is felt that further trial of this arrangement is necessary before a decision may be reached as to whether this force is adequate.

Miss Hazel Gay was appointed Librarian, and Miss Helen Gunz was named Assistant Librarian. In October, Miss Hope Ranslow resigned from our staff, and was replaced by Miss Mary Wissler.

The Department of Printing and Publishing was reorganized by Mr. Tom Davin, who, early in the year, was appointed Manager of Printing and Publications.

Due to the opening of new buildings and to the formation of new departments, the flow of work into the print shop increased thirty per cent., taxing staff and equipment to the utmost. *Natural History* had increased in circulation to a point where it was no longer practicable to print it at the Museum, and was sent to a commercial printer. This was followed by the *Bulletin* and *Novitates*, and other publications formerly printed in our shop.

Natural History was divided so as to form two volumes per year, the first volume of the year including the January to May numbers, the second to include June, September, October, November and December.

Volume I of the Memoir on the Proboscidea, by Henry Fairfield Osborn, is being printed.

"The Reptiles of China," by Clifford H. Pope, was published on May 11. It constitutes Volume X of "The Natural History of Central Asia," and is the fourth of the twelve volumes to appear.

Part I of the *Bulletin* by Henry W. Fowler, on west African fishes, was in press at the close of 1935, and Part II is in process of publication.

The monographic work by Doctor Van Name on the Isopods of North America is in press. It will occupy an entire volume of the *Bulletin*.

The Bindery, hitherto a branch of the Department of Printing and Publishing, became affiliated with the Museum Library. The

American Museum Press, now a job press only, has been removed to the basement of the African building.

Dr. Edward M. Weyer, Jr., was appointed editor of *Natural History*, and Mr. Sherman P. Voorhees, Advertising Manager.

Our regular publications are the *Bulletin*, *Novitates*, *Anthropological Papers*, *Memoirs*, *Natural History*, *Handbooks*, *General Guide*, *Guide Leaflets*, and *School Service* series.

RESEARCH AND ALLIED ACTIVITIES

Addresses have been made by all members of the Astronomy staff in various outside organizations—on general astronomical subjects and especially on the Hayden Planetarium.

The regular activities of the Amateur Astronomers Association were conducted. Many new members were taken into the society as a result of the greater interest awakened in astronomy through the opening of the Planetarium. A new experiment was tried during the fall series of general semi-monthly lectures. On the third Wednesdays of October, November, and December, the meeting was given over to short talks by members of the Association, and to general discussion.

From January through June, weekly radio talks were given over Station WOR—many of these in the form of dialogues between Miss Marian Lockwood and Mr. Arthur L. Draper, of the Planetarium staff.

Several important papers appeared under the auspices of the Department of Mineralogy. Mr. Clifford Frondell published as a Museum Bulletin his "Catalogue of the Mineral Pseudomorphs in the American Museum." Mr. Frondel also published in *The American Mineralogist* for December a paper on "Vectorial Chemical Alteration of Crystals," on material largely derived from the Museum collection.

Dr. Frederick H. Pough contributed to the same issue of *The American Mineralogist* a paper on "The Morphology of Phenacite from two new Occurrences."

The Curator of Mineralogy, Mr. H. P. Whitlock, contributed to a conference on Museum Methods for Mineral Exhibition, held during the Annual Meeting of the Mineralogical Society of America, a short discussion on "The Mineral Museum and the People." Doctor

Pough has completed optical and crystallographic study on several new occurrences of obscure minerals, and a detailed study of diopase involving new crystal forms. He is now at work on a revision of the feldspar group in the Mineral Collection based on optical determination. The department has acquired a standardized set of immersion oils for index of refraction determination. The Curator addressed a group of the Evening Elementary School Students' Association on Common Minerals in the Earth's Crust. In addition to the lectures in the Museum, the Curator has spoken before the Brooklyn Institute on "Gems Ancient and Modern," at Hunter College on "Jade," and on the radio on "Diamonds."

Doctor Reeds, Curator of Geology, gave interviews to reporters, various feature syndicates and magazine publishers regarding earthquakes. The Lincoln Ellsworth collection of invertebrate fossils from Antarctica was catalogued, also a part of the Jooss collection.

The official list of the meteorites transferred to the Department of Astronomy is being arranged in a forthcoming Handbook on the Meteorite Collection by Doctor Reeds. The meteorite collection, which has been assembled over a period of 63 years, has been checked as to weights, location, names, determinations, etc.

Doctor Reeds, at the request of Professor Henry Fairfield Osborn, prepared reports and charts on "Age of the Earth" and "World Glaciation during the Pleistocene," and submitted reviews of current geological papers before monthly meetings of the Department of Vertebrate Palaeontology.

The cataloguing of the Lindbergh collection and other geographical objects was brought up to date.

A number of Novitates and two Bulletin articles were published by the Department of Vertebrate Palaeontology during the year.

Curator Miner has spent much time in editing various scientific articles, has continued his work on his handbook of North Atlantic invertebrates, and in the study of corals and gorgonians.

Doctor Van Name has continued his researches on ascidians, and has spent considerable time in identifying the invertebrate accessions which have been added to our collections during the past year, and in cooperating in the editing of other scientific articles.

A paper entitled "Some Sponges of Lower California," by Dr. M. W. de Laubenfels, based on Museum collections, has been published, and two other papers are in press, "African and American Oligochaeta in the American Museum of Natural History," by Pro-

fessor W. Michaelsen, and "Psammolittoral Rotifers of Lenape and Union Lakes, New Jersey," by Research Associate Frank J. Myers, also based on Museum collections made and donated by Mr. Myers.

During the year the general invertebrate study collections have been increased by 2,858 catalogued specimens. About 33,000 mollusk specimens have been added to our catalogued series. Our important mollusk study collections now total approximately 700,000 specimens.

As in former years, when field work did not take him away, Curator Lutz established a summer laboratory for the study of insect biology at his home in northern New Jersey. Financial support for such work comes from the Entomological Fund. This year, Doctor Lutz, with the volunteer assistance of Mr. E. N. Grisewood of New York University, studied the effect of infra-red radiation on honey bees and also carried on experiments concerned with the psychology and auditory sense of bees. Messrs. Watson of our regular staff and C. B. Lewis, Jr., of Johns Hopkins University, worked chiefly on local moths, and Doctor Gertsch of our staff studied the life-histories of certain local spiders.

Doctor Gregory, assisted by Mr. G. Miles Conrad, completed several investigations, especially the evolution of the curious hinge-jaw in certain characin fishes and the adaptive radiation and phylogeny of deep-sea isospondyls, Iniomi and pediculate fishes. The work on the osteology and phylogeny of the characins was materially advanced. Doctor Gregory's earlier investigations on the origin of the five-rayed appendages of the earliest land-living animals were extended in a paper dealing with the structure of the pectoral girdles and fins in *Sauripterus* and other lobe-finned fishes, published by the American Philosophical Society. A brief analysis of the method of locomotion of the eagle rays was completed and published.

The manuscript on fresh-water fishes of China, by Mr. Nichols, was revised and brought up to date. Mr. Nichols continued his studies on the taxonomy and changes in growth of fishes allied to the genus *Caranx*, publishing a number of articles on these topics. Studies on the classification of the marlin swordfishes were made with Miss LaMonte, and a report was made on the most southerly fish ever captured, which was brought back by the Byrd Antarctic Expedition; the rest of the material secured by this expedition was identified and a report prepared. Further studies on the flying fishes, with Mr. C. M. Breder, Jr., were completed. With Messrs. Van Campen

Heilner and Ray Schrenkeisen, Miss LaMonte prepared and published a revised table of gamefish records.

Doctor Gudger's researches have included: Various studies on the occurrence and distribution of the whale shark, *Rhineodon*; on abnormalities in various flatfishes; on mortality in Florida fishes due to cold or to drying up of lakes; on the structure and development of the tail of the pointed-tailed ocean sunfish, *Masturus*; on the geographical distribution of *Masturus*; on the first published figures of teratological fishes; on the egg-masses and the "nests" of the sargasso fish. Doctor Gudger's chief publications were: "Maxillary Breathing Valves in *Chlamydoselachus* and *Cetorhinus*" (*Journal of Morphology*), "Reversal of Sides in Flatfishes" (*Journal of Morphology*), "The Pointed-tailed Ocean Sunfish (*Masturus*) in Florida Waters" (*Scientific Monthly*).

Dr. B. G. Smith continued his investigations on the anatomy of the frilled shark, *Chlamydoselachus anguineus*, for the Dean Memorial Volume, and nearly completed the manuscript for this paper, which has been edited by Doctor Gudger. Dr. E. Grace White spent some time revising and bringing up to date her memoir on the classification and evolution of the Elasmobranchs, including the fossil as well as the recent families. Mr. Robert Denison put together the pieces of the head skeleton of the whale shark, made a thorough study of its morphology, supervised the work of the artist, Mrs. Ziska, in drawing the head, and nearly completed his report thereon. Mr. Frederick F. Sheldon completed his preliminary report on the functions and evolution of the pelvis of catfishes. Mr. Anthony Q. Keasbey completed a report on Late Tertiary fossil fishes presented by the University of Nebraska.

The collection of reptiles and amphibians was increased by 2,504 specimens during the year, through expeditions, gifts or exchanges. An interesting series of reptiles was collected by Mr. F. G. Carnochan in Tanganyika and another by Mr. D. Coghill in Natal. An important collection of reptiles was obtained by the Vernay-Hopwood Chindwin Expedition to Burma. Several valuable lots of specimens were received from Mexico and southwestern United States.

The collection of reptiles and amphibians numbers more than 100,000 specimens and is consulted yearly by many students. The skeleton collection was checked over, and many new specimens, chiefly from the New York Zoological Park, were added.

Notable progress was made in the study of the herpetological collections. Mr. Pope's final report on the extensive collections of reptiles secured by the Central Asiatic Expeditions of the Museum was published. Doctor Harvey Bassler is bringing to completion a catalogue of the original descriptions of all the serpents of the western hemisphere. He has made considerable progress in a detailed study of the 9,000 snakes from Latin America and the Antilles in the Museum collections. Doctor Noble and Mr. Hassler described a new giant *Anolis* from Cuba and have in press an account of a herpetological survey of southern Maryland. Work is in progress on the extensive African collection of the Museum and on the reptiles and amphibians secured in New Guinea by the Archbold-Rand Expedition. Mr. Kauffeld published a record of a rare snake in New Jersey and continued his studies of American and exotic reptiles.

The Department of Experimental Biology is responsible for the Public Health exhibit of the Museum and attempts to keep informed of the recent developments in this field. Doctor Clausen has cooperated with Doctor Reynals of the Rockefeller Institute in a study of certain infectious tumors of lower vertebrates.

Many problems in natural history can be solved only by exact experimental methods. Studies on sexual selection in fishes, lizards, turtles, snakes and birds were carried forward in the biological laboratory. A preliminary note on one of these studies was published by Doctor Noble and Mr. Brian Curtis in the *Anatomical Record*, and three other manuscripts have been completed.

The work has been extended to a study of social behavior in terms of brain structure. Very little is known of the relation of instincts to nerve tracts in the brain. The observations which Doctor Noble has been making on fishes and turtles should throw considerable light on this important subject.

The glands of internal secretion have an important influence on behavior and physiology of animals. Doctor Clausen carried forward a study of the pineal in lizards. He also studied and reported briefly on the endocrine glands regulating the length of foetal life in reptiles. Doctor Etkin published three articles on the endocrines regulating growth and differentiation in tadpoles. Doctor Noble and Miss Kumpf have continued their studies on the molting mechanism and its relation to pigmentation. Much of the research work in the laboratory of Experimental Biology during the past year was supported by a grant from the Josiah Macy, Jr. Foundation.

The laboratory of Experimental Biology was planned as a place where the exact methods of modern biological sciences could be applied to natural history problems. It was hoped that the laboratory would help not only the Museum staff members in their research problems but would also be useful to teachers of biology in other city institutions. During the past year, two members of the biological department of City College have carried forward a research program in the laboratory. A course for teachers was given by the Department members under the auspices of Hunter and City Colleges. Teachers and students have visited the laboratory and received first-hand instruction in biological methods of research. Many quarts of frogs' eggs held in the laboratory were distributed to schools through the cooperation of the Department of Education.

Doctor Chapman prepared and published a paper on "The Courtship of Gould's Manakin (*Manacus vitellinus vitellinus*) on Barro Colorado Island, Canal Zone," and a popular account of the habits of the Coati.

Mr. Zimmer continued studies on the birds of South America, especially of Peru. Two numbers of the "Studies of Peruvian Birds" have been published, others being in preparation, or completed awaiting publication.

Doctor Murphy has devoted full time to the completion of his two-volume work on "Oceanic Birds of South America." The volumes are now at the point of appearing.

Doctor Chapin resumed his studies of Congo birds. While in Belgium and England on Museum business, he examined many specimens of African birds. An article by him on the Crocker Pacific Expedition appeared in *Natural History* in November.

Doctor Mayr was in charge of the unpacking of the Rothschild Collection. He made some preparations for the Alpine group, has arranged various collections for further cataloguing and has consolidated other collections with the general series, and has published three papers, two in collaboration with Doctor Rand.

Mr. O'Brien was occupied with the unpacking of the Rothschild Collection and in supervising the moving of the Department of Birds into new quarters. On August 15, the cataloguing of the Rothschild Collection was begun under supervision of Mr. O'Brien. At the close of the year, 42,000 specimens, principally North and South American skins, had been entered in the books. This gives promise of completion in advance of scheduled time. Funds for unpacking

and cataloguing the Rothschild Collection and moving the Whitney South Sea Collections were supplied by Mrs. Harry Payne Whitney.

Mrs. Naumburg continued work on east Brazilian birds and has published a useful gazetteer with maps showing the collecting stations visited by her collector, Mr. Emil Kaempfer, in eastern Brazil and Paraguay.

Mr. Brand carried on further work in his recording of bird songs. On a joint expedition with Cornell University through the southern states, much important work of this kind was performed. He has a second volume with phonograph records of bird songs in course of publication.

Dr. Austin L. Rand devoted his attention during most of the year to the preparation of scientific papers dealing with results of the Archbold-Rand New Guinea Expedition. One paper, prepared in collaboration with Doctor Mayr, appeared in the *American Museum Novitates*, and another, to be published elsewhere, with similar authorship, was due to appear at the close of the year. A full report on the birds of the Archbold-Rand Expedition was prepared by Doctor Rand and Doctor Mayr, and this, and several other papers by Doctor Rand, are ready for publication. A general report on the Expedition has been published in collaboration with Mr. Archbold.

Much assistance has been rendered to the Department of Birds by Mr. Hugh Birkhead, who volunteered his services. Mr. Richard Kuerzi, who was employed until the completion of the moving of the collections, also has given us volunteer assistance.

Miss Thomas, former secretary of Lord Rothschild, in Tring, was added to the secretarial staff at the end of October, and Mr. Thomas Gilliard, previously a volunteer assistant, was made a permanent assistant in January.

The principal item of research in the Department of Mammals consisted in the identification and report upon collections, and a considerable amount of manuscript was completed.

Mr. George G. Goodwin has been studying North American mammals, compiling data on mammals extinct or nearing extinction in the region east of the Mississippi River, and has directed translation of important reports on mammals written in Russian.

Dr. Robert T. Hatt, before his resignation on July 1, had nearly completed his study upon the Lang-Chapin Belgian Congo collections of rodents and hyraxes, as well as the mammals collected by the

Rockefeller-Murphy Expedition in Tanganyika Territory and eastern Belgian Congo.

Dr. John Eric Hill was appointed, on December 2, Assistant Curator in the Department of Mammals to fill the vacancy created by the resignation of Doctor Hatt, and began upon the study of the collections made by Mr. Vernay in Angola and Kalahari. Mr. T. Donald Carter had been engaged upon this activity, and with the assistance of Doctor Hill it is expected that a report upon these important collections can be completed in 1936. Mr. Carter also made preliminary studies of the large collection of the Sage West China Expedition.

Mr. George H. H. Tate studied the mammals in the Archbold collection from New Guinea and the adjacent island areas.

Mr. Raven's monograph on "Wallace's Line and the Distribution of Indo-Australian Mammals," published during the year, is an important contribution to classic problems of zoogeography. Mr. Raven completed a report on the anatomy of the Giant Panda, from material secured by the Dean Sage West China Expedition.

Doctors Gregory and Hellman continued their comparative studies on the evolution of the jaws and teeth of mammals, especially primates. Doctor Pinkley gave an illustrated paper on the Wadjak man before the Peiping Union Medical College. Professor Morton completed his work on "The Human Foot," which was published by Columbia University.

Doctor Gregory's papers deal largely with various phases of the evolution of the skull, pelvis, limbs and other parts of the skeleton of vertebrates, especially in the general line leading from the earliest fossil pre-fishes, through the ascending vertebrate classes to the mammals, culminating in man. In the preparation of the paper entitled "Williston's Law relating to the Evolution of Skull Bones in the Vertebrates," he was assisted by Marcelle Roigneau, Assistant Curator of Comparative Anatomy, and a number of graduate students of Columbia University.

The death of Professor Marshall H. Saville left his manuscript on his early excavations in Mexico incomplete. However, this had reached such a stage that it can be eventually prepared for publication.

Curator Nelson made a study of the Hildburgh archaeological collection and prepared it for cataloguing. He also classified the African and Egyptian collections, developed a set of charts for the

illustration of his manuscript on world archaeological types, and completed a paper on the Santa Barbara culture of California.

Doctor Shapiro progressed with the manuscript on the race types of Hawaii, an investigation in cooperation with the Bishop Museum in Honolulu and the University of Hawaii.

Dr. Margaret Mead worked on manuscripts covering her previous field work in Melanesia. One of these is practically complete. As heretofore, Doctor Mead has taken active part in various lines of research carried on under the auspices of outside agencies, especially as a member of the committee appointed by the Social Science Research Council to plan and direct investigations on the relationships between culture and personality. A book on the subject is being prepared, to which she is an important contributor.

Doctor Bennett has completed a manuscript giving the important details of his expedition to South America.

Mr. Mandelbaum is engaged on a report of the work among the Cree Indians.

EXPEDITIONS

We have had approximately twenty-seven expeditions in the field. These have all been financed by special funds contributed by friends. The expeditions have definite objects in view, and are carefully planned before starting for their locations.

NORTH AMERICA

The Snyder Canadian Expedition brought back 200 specimens of mammals from Barren Grounds east of Great Slave Lake, from the Nahanni River and from northern British Columbia, including skins and skeletons of Dall sheep, Stone sheep and elk, collected by Mr. G. G. Goodwin. Mr. Goodwin also made a short trip to Wood Buffalo Park, Alberta, for wood buffalo and wolf. Financed by Mr. and Mrs. Harry Snyder and Miss Dorothy Jane Snyder.

The Davison Alberta Expedition secured 276 mammals, including skins and skeletons of moose, caribou, mule deer, sheep and goats, collected by Mr. T. D. Carter. Financed by Mr. H. P. Davison.

The Department of Fishes is making plans for an expedition in 1936 to Cape Breton, which Mr. Michael Lerner has generously undertaken to finance.

The Harriman Idaho Expedition secured 411 specimens of mammals from Idaho and Wyoming, collected by Mr. Raymond M. Gilmore. Financed by Mr. E. Roland Harriman.

The Snyder Colorado Expedition secured 150 specimens of mammals, including skins and skeletons of elk and mule deer, collected by Mr. G. G. Goodwin. Financed by Mr. Harry Snyder.

The Nichols Nevada Expedition secured 461 specimens of mammals, collected by Mr. David G. Nichols. Financed by Mr. Childs Frick.

The Preston California Expedition secured 170 mammals, Mr. Dawson A. Feathers, collector. Financed by Mr. L. T. Preston.

Dr. Barnum Brown made a short reconnaissance trip to the Permian and Pleistocene fields of Baylor and Archer Counties, and the Cretaceous exposures in Dallas County, Texas. Financed by the Sinclair Refining Company, Dr. Barnum Brown and the Jesup Fund.

Dr. George Gaylord Simpson conducted an expedition, sponsored by Mr. Horace S. Scarritt, into the Fort Union beds of Sweetgrass County, Montana. The party secured the largest collection yet made of Paleocene mammals from this locality. Also from the Scarritt Expedition were received forty Montana mammals collected by Dr. Walter Granger.

Three temporary field assistants, Mr. C. E. Schaeffer, Mr. D. Mandelbaum, and Mr. David Rodnick, were appointed to work under the direction of Curator Wissler among the Kootenai, Cree and Flathead Indians. These projects were successfully carried through, securing much needed information and a number of important specimens. The field notes are being typed for filing in the department. The expedition was financed by the Voss Fund.

For several years the Department of Experimental Biology has been advancing a study of the evolution of social habits in the vertebrates. This year it was possible to extend these studies to tropical forms. Mr. W. G. Hassler left for Haiti early in March to inaugurate a series of field studies of tropical reptiles and fishes. He was joined at various times for varying periods by J. H. Hassler, D. C. Pease, M. P. Cummin and J. W. Bell. The expedition crossed Haiti and Santo Domingo in several directions, making extensive collections in some of the least known parts of the island. The expedition was equipped with a motor truck, which made it possible to move rapidly from one base camp to another. Mr. Hassler remained in the field until October, bringing back with him fifteen hundred specimens of

reptiles and amphibians, as well as a series of fishes, birds, mammals and invertebrates. Several species new to science were obtained. The expedition was financed by generous gifts from Miss Maud Lewis Fletcher, Daniel C. Pease, Dr. J. Warren Bell, Melville P. Cummin, Mrs. Ethel G. Hassler, and André de Coppet. The study of the evolution of social habits in vertebrates will be continued in the laboratory with the animals brought back from Hispaniola. Many expeditions into the local field have been made in pursuit of this study. The Department's field station in the Pine Barrens of southern New Jersey served as a base camp for much of this work.

Mr. Duncan Argyll Holmes tried many experiments in new methods of deep sea fishing in the "Tongue of the Ocean" off the Bahamas. Financed by Mr. Holmes.

An expedition to Jamaica by Mr. Roswell Miller, Jr., brought back an interesting collection of invertebrates. Financed by Mr. Miller.

The major anthropological objective in Mexico and Central America is to establish long range stratigraphic horizons in the area as a whole. A plan was developed several years ago in accordance with which field work has been carried on in the Valley of Mexico. Doctor Vaillant spent the entire year in the field; a number of sites have been excavated, and the previous tentative chronological periods verified, the problem now being to determine the geographical range of the respective chronological types. Supported by the Middle American Fund.

Archaeological explorations were carried on in Porto Rico by Mr. Froelich Rainey, in cooperation with the New York Academy of Sciences. Supported in part by the Voss Fund.

SOUTH AMERICA

Doctor Bennett returned from Bolivia early in the year, having completed his excavations in the Lake Titicaca region. The results are of unusual importance, since they give for the first time a fairly complete chronology for the prehistory of the localities visited. Voss Fund.

Late in the year Doctor Bennett left for Peru to carry on archaeological work. Voss Fund.

Late in 1934, Mr. Junius Bird left for the Strait of Magellan. He is still in the field, but reports that he first explored a large part

of the island archipelago on the south coast of Chile. Arriving at the Strait of Magellan, he began archaeological excavations in the shell heaps and rock shelters. Voss Fund.

EUROPE

By cooperation of Professor C. F. Cooper of the University of Cambridge, Professor H. F. Osborn visited the quarry of Old Red Sandstone fishes at Achenarras, Scotland, and arranged for further exchanges. Financed by the J. P. Morgan Fund.

An expedition to the north of Scotland by Mr. Roswell Miller, Jr., resulted in an interesting collection of invertebrates. Financed by Mr. Miller.

Doctor Mayr made preliminary studies in the Alps for the Alpine Bird Group and arranged with Mr. Olivier Meylan of Switzerland for the collection of further data, accessories, etc. Mr. Francis L. Jaques visited the site of the proposed group during the summer and made studies for the background. Funds for this group have been given by Mrs. Carll Tucker, whose generosity in former years has provided other groups.

In Belgium and England, Doctor Chapin examined many specimens of African birds.

ASIA

The Sage West China Expedition returned on the tenth of March. This expedition departed from New York on April 23, 1934. It brought back 2,216 specimens of mammals from the Province of Szechuan, including skins and skeletons of giant panda, takin, golden monkey, serow, goral, musk deer, tufted deer, and skins and skulls of blue sheep, black bear and wild boar, also a number of bird specimens. Mr. T. D. Carter was the Museum collector. Financed by Mr. and Mrs. Dean Sage, Jr.

The Vernay-Hopwood Chindwin Expedition to Burma brought back 732 specimens of mammals, collected by Mr. H. C. Raven. Mr. Raven also collected some interesting fishes in Burma and Malaya, as well as birds, reptiles, amphibians, crustaceans and anthropological specimens, and made motion pictures of gibbons. Financed by Mr. Arthur S. Vernay.

PACIFIC ISLANDS

Preliminary steps have been taken toward an expedition to certain islands of the Pacific Ocean, to obtain material and data for constructing the projected Pearl Fisheries Group.

The Whitney South Sea Expedition closed its active operations with the return of Mr. Coultas from the field with 948 bird skins and some nests and eggs. Mr. Coultas remained in the Department for a short time thereafter, writing up his journals and field notes, which have been copied and bound, forming a record of the final field activities of this enormous project. The expedition brought back 61 specimens of mammals from the islands of the South Pacific, also 22,000 land and fresh-water shells. Financed by the Whitney South Sea Expedition Fund.

At the beginning of the year, Doctor Chapin was in the field with the Templeton Crocker Pacific Expedition, gathering materials for groups to be placed in the Whitney Memorial Hall. In February, this work was being carried on (in collaboration with Mr. F. L. Jaques) at the Chinchā Islands off the coast of Peru, and in March at Indefatigable Island in the Galapagos group. The expedition returned in April with 478 bird skins, several nests, and other accessories from the localities mentioned and from the Marquesas and Tuamotus, which were visited during the latter part of 1932. This collection, with specimens already on hand for a group of "Ship's Followers," provides material for five of the groups designed for this hall. Financed by Mr. Templeton Crocker, the Jesup Fund and the Whitney South Sea Expedition Fund.

Doctor Shapiro was a member of the Templeton Crocker Pacific Expedition, leaving for the South Pacific late in 1934. He returned early in 1935, having visited a number of Polynesian island groups and made a further study of the Pitcairn Islanders. Among the items of interest are measurements upon the natives of Easter Island and the collection of archaeological materials. Financed by Mr. Templeton Crocker and the Physical Anthropology Fund.

The expedition brought back an important collection of marine invertebrates from the west coast of Lower California and from South America, and secured about 4,000 insect specimens from the South Pacific. Mr. Templeton Crocker in cruising the eastern Pacific obtained important material for studies in the Department of Fishes. The expedition also brought back a series of Galapagos marine

iguanas, five sea lions from the Galapagos, one porpoise skeleton from Lower California, and six small mammals from islands in the Pacific.

An anonymous donor has contributed the amount necessary for a field trip to the Island of Bali and eventually to New Guinea. The objective will be to study the behavior of young children and their place in the tribal community. Dr. Margaret Mead will leave early in 1936.

Mr. William J. Morden spent three months in Hawaii, and obtained marine fishes, especially *Caranx*. Financed by the Morden *Caranx* Fund.

III. ADMINISTRATION, OPERATION, BUILDING

ROY CHAPMAN ANDREWS, Director

WAYNE M. FAUNCE, Vice-Director

The four newest building sections are being occupied as rapidly as possible. In the African Wing, the groups in the Akeley Memorial African Hall, second floor and gallery, are progressing under the management of Dr. James L. Clark. The Museum printing plant has been moved into the basement of this section, and the location is lighter and better fitted to its needs than the old location in the east wing. Several dinosaur skeletons have been prepared for exhibition in the Jurassic Dinosaur Hall on the fourth floor. The fifth floor is occupied by offices and editorial rooms. The experimental biological laboratories on the sixth floor and roof are functioning under the supervision of Dr. G. K. Noble. The first floor will be occupied by the exhibits of North American mammals.

The Whitney Wing, or South Oceanic Wing, erected through contribution of Mr. Harry Payne Whitney and through appropriation from the City of New York, is devoted to the Department of Birds, which moved into the building during 1935. The first floor will be occupied by exhibits illustrating the biology of birds. The groups of sea and South-Sea islands birds for the second floor have been planned. The famous Rothschild collection is installed on the third floor and part of the fourth. The center of the fourth floor will be devoted to a gallery of bird paintings. The remainder of this floor and the fourth mezzanine and fifth floors contain offices and storage rooms. The sixth floor and basement will provide needed storage space, and there will be laboratories on the sixth floor.

The Theodore Roosevelt Memorial has been erected by the State of New York, and is structurally completed. There remain, however, such major details as the installation of the four large groups, refinishing of interior limestone, and incidental changes in the lighting, directional signs and bronze tablets. The Statesmen's Room and adjoining rooms are planned to contain the portraits of Theodore Roosevelt and his contemporaries, together with such memorabilia of Roosevelt as can be secured. The murals in the Memorial Hall proper will represent Roosevelt's outstanding achievements, and have been named the Portsmouth Panel, the Panama Canal Panel, and the

African Expedition Panel, each depicting matter pertinent to the title.

The Roosevelt Memorial Trustees and the Buildings and Plans Committee of the Museum Trustees have given much time to the rounding out of an impressive memorial, especially for the benefit of the youth of the nation. The late Professor Henry Fairfield Osborn labored devotedly as the Chairman of the Trustees of the Memorial, but passed away before the realization of his hopes to see the building completed. Mr. George N. Pindar, Secretary of the Memorial Trustees, has worked untiringly in the interest of this great undertaking.

The Hayden Planetarium, erected through funds supplied by the Reconstruction Finance Corporation, was completed in 1935. The Zeiss Projection apparatus and the Copernican Planetarium were gifts of Mr. Charles Hayden. The building was opened on October 3, and indications are that the debt for construction will be paid in less than the time allowed in the contract. The building is a two-story structure with a dome-like roof which supports the hemispherical projection ceiling in the auditorium on the second floor.

Mr. Richard H. Cooke was appointed Business Manager of the Hayden Planetarium, and he and his staff have successfully performed the volume of work due to the almost overwhelming popularity of this new venture.

Upon the retirement of the Registrar, Mr. George N. Pindar, the function of recording accessions, formerly cared for by the Registrar's office, was transferred to the office of the Executive Secretary. The responsibility for shipping, transportation and receiving was transferred to the Bursar's office.

The position of Chief Engineer was abolished, in the course of the reorganization, and Mr. Henry J. Langham, who had served the Museum loyally and efficiently as Chief Engineer since February 1, 1902, was retired on June 20, 1935.

The position of Chief of Construction was also abolished, and Mr. Harry F. Beers, who had ably carried on the work of this position since March 1, 1901, was retired on June 20.

Mr. J. B. Foulke, who, since June 1, 1911, had well performed the many duties devolving upon him as Superintendent of Buildings, was transferred to the position of Custodian, his former Administrative Staff position having been abolished.

The work previously done by these three officers (Chief Engineer, Chief of Construction and Superintendent of Buildings) was united under a General Superintendent. Mr. Rex P. Johnson was appointed to this office, beginning June 17, and has ably handled the mechanical and engineering problems of the Museum. The greater economy and efficiency of operation have proved the wisdom of this change in administration.

Among the many items of work listed by Mr. Johnson are the following:

Preparation for the opening of the Planetarium and installing the equipment and exhibits fully occupied the mechanical force during the summer. The Whitney Wing required many items of equipment to get it ready for occupancy. In other sections of the building, the making of exhibition and storage cases, installation of machinery, installation of cases and large specimens or exhibits, expedition equipment, making of new telephone room, renovation of halls and offices, equipment of storage quarters, electrical work and plumbing, installation of glass for cases, working out lighting effects for groups, and other items of work were accomplished. The office force of the mechanical department prepared drawings and specifications, kept cost records, made safety inspections, and attended to the routine office work.

Major items of work carried out with the aid of the United States Works Progress Administration workers, under the direction of the Department, include construction work to increase facilities in certain parts of the building, moving shop and laboratory equipment as new quarters became available, painting, repairs and construction of storerooms. Changes were made in the boiler equipment, to improve efficiency and lower operating costs. The system of records that has been developed maintains this standard. The addition of the Planetarium and of the Roosevelt Memorial has raised the cubical contents of the building to 22,548,000 cubic feet, an increase of 4.6%, which represents the increase in the heating load.

In the summer a dial telephone system was installed for internal calls, which has greatly lessened the burden on the telephone operators.

As in the past year or two, it has been necessary to close some of the exhibition halls each day, because of lack of funds, but it is hoped that this condition will not prevail much longer.

The sales booth at the south entrance was reconstructed and placed under the direction of Mrs. Margaret H. Mack, and the sales of publications, post cards, etc., have continued to grow encouragingly.

As for many years past, our assembly halls have been used by scientific and educational societies, and individual scientists have been welcomed who wished to engage in research.

The restaurant and cafeteria, and the employees' lunch room have continued to serve the needs of the public, children of the public schools, and our employees. Since the opening of the Planetarium, the patronage of the restaurant has greatly increased.

The storage collection of fossil reptiles on the sixth and seventh floors of the East Wing is in process of transfer to the new basement quarters. The problem of storage for the Department of Mammals has been solved by the removing of the Department of Birds to the new Whitney Wing. Certain construction changes are being made before the Department of Mammals can occupy the space thus released.

Many useful projects have been carried on through the services of the Works Progress Administration workers assigned to the Museum in its various departments.

The retirement of Mr. Pindar from the Pension Board on June 15, deprived the Board of his devoted service as its Secretary. Dr. H. E. Anthony was appointed on August 7 to fill this vacancy.

Concerts were given in the auditorium on Sunday and Wednesday afternoons, by orchestras provided by the United States Works Progress Administration and by the Emergency Relief Bureau of the City of New York. The Museum furnished the hall and guards, and provided printed programs for these concerts, which were enjoyed by many thousands of people.

In the last four years, during a few weeks in the spring, an exhibit of art works by Museum staff artists and other persons employed in the Museum, has been held in Education Hall. These exhibitions are an incentive to the artists, and have aroused public interest as a contribution to the culture of the city.

PUBLIC AND PRESS INFORMATION

During the past year, most of the efforts of the Department of Public and Press Information, under the supervision of Hans Chris-

tian Adamson and with the able assistance of Miss Jean Wiedemer, have been directed toward building up the good will of the press and opening the doors wide for valuable publicity in acquainting the public with the work being done in the Museum's research laboratories, exhibition halls, expeditions in the field and the opening of new buildings.

The broadcasting companies, newspapers, photographic services and news syndicates have aided immeasurably in creating active public interest, not only in the opening and dedication of the Hayden Planetarium and the New York State Theodore Roosevelt Memorial, but also in the daily, weekly and monthly activities of the Museum's departments.

As graphically shown by the great number of newspaper clippings and inquiries from every part of the country, there is evidence that publicity, disseminated through the medium of radio, newspaper and photographic channels, has stimulated an ever-increasing interest in the natural history work being carried on.

Through the courtesy of the Special Events Department of the Columbia Broadcasting System, a series of coast-to-coast broadcasts encompassing sixty-five stations was arranged. These are known as the Drama of the Skies, and are given once a month, by Dr. Clyde Fisher and Mr. Hans Christian Adamson, and by Robert Trout of the Columbia Broadcasting System. Responses from listeners to these events have shown a nation-wide interest.

ACCESSIONS

Among the notable accessions were the following:

A Foucault Pendulum and replicas of two Galilean telescopes, from A. Cressy Morrison; two cases for astronomical exhibits, from a friend of the Museum; a large astronomical collection from the estate of Lewis Morris Rutherford; 153 lantern slides, from Mrs. Worcester Reed Warner; 11 photographs of Ahnighito Meteorite of Cape York from the estate of Colonel Archibald Rogers. One hundred eighty-three fossil invertebrates from Jamaica, Trinidad and British Guiana, were purchased from Dr. Carlo H. Jooss of Georgetown, British Guiana.

Important additions to our study collections are more than 22,000 specimens of land and fresh-water shells from the Bismarck Archipelago, collected by the Whitney South Sea Expedition; identified

annulates from Canada and Porto Rico, presented by Research Associate A. L. Treadwell; more than 1,000 specimens of land and marine shells from the Philippine Islands donated by Mrs. Leonard Wood; a collection of invertebrates made by Roswell Miller, Jr., from Jamaica, West Indies; and a splendidly preserved collection of marine invertebrates, made by the Templeton Crocker Expedition to the western coast of Lower California and South America; mounted and identified rotifers, including types, presented by Research Associate Frank J. Myers; 465 specimens of marine invertebrates collected in sargasso weed by the yacht "Director," and presented by Mr. Hugh S. Davis; coelenterates and other marine invertebrates taken on cables from about 2,000 fathoms, presented by Mr. Henry Stiefel of the cable ship "Eduard Jeramec"; crustaceans collected by the Vernay-Hopwood Chindwin Expedition; and 875 specimens of invertebrates collected by the Roswell Miller, Jr., Expedition to north Scotland.

Our collections of insects were increased by gifts of approximately 80,000 specimens, largely from South America. The most valuable of these South American gifts was one of more than 20,000 well-labeled specimens from the Upper Amazon Basin made by Dr. Harvey Bassler. The Templeton Crocker Expedition to the South Pacific secured about 4,000 specimens. The most notable proportionate growth has been in the collection of North American spiders, including large gifts from Dr. W. J. Gertsch and Mr. Peter Steckler.

The fishes of the Second Byrd Antarctic Expedition have been deposited with the Museum.

Other notable accessions during the year are led by the gift of the Brewster-Sanford collection of South American birds, 7,853 specimens, presented by Mr. Frederick F. Brewster and Dr. L. C. Sanford. The Brooklyn Museum presented 6,583 bird skins. The Vernay-Hopwood Chindwin Expedition brought back several hundred bird skins from Burma. Mr. Edward W. C. Arnold, of Babylon, Long Island, presented 670 mounted birds, including a pair of ivory-billed woodpeckers, a Spix's macaw, and other rare species. From the Second Byrd Antarctic Expedition were received 150 or more bird specimens, containing many rare species and other material valuable for group work. Mr. F. G. Carnochan presented 167 birds from Tanganyika Territory; Mr. Lincoln Ellsworth, 17 penguins and 2 cormorants from Antarctica; Dr. L. C. Sanford, 2 skins of *Tetraogallus himalayensis koslowi*, and 3 eggs of *Atlantisia rogersi*.

From Messrs. A. B. Roosevelt and Walter Sullivan were received

53 small mammals from Alaska; from the Rainbow Bridge-Monument Valley Expedition, through Mr. Ansell F. Hall, Director of the expedition, and Dr. C. C. Clark, biologist, 329 mammals from Arizona; from the Scarritt Expedition, 40 mammals collected in Montana by Dr. Walter Granger; from E. B. Bell, Jr., 39 mammals from Mississippi; from Mr. George H. Lowery, 30 mammals from Alabama; from J. T. Young, 197 mammals from western China; from Dr. Harvey Bassler, 117 mammals from Peru; from Mr. F. G. Carnochan, 197 mammals from Tanganyika.

The Brooklyn Museum donated 766 skins and 776 skulls of mammals from North and South America. The Second Byrd Antarctic Expedition gave 37 seal skins and 109 seal skulls from the Bay of Whales. Mr. Templeton Crocker donated 5 sea lions from the Galapagos Islands, 1 porpoise skeleton from Lower California, and 6 small mammals from islands in the Pacific.

Important anthropological gifts were collections from Chile and Easter Island by Mr. Templeton Crocker, a large archaeological collection from the District of Columbia presented by Mr. Ernest Shoemaker, and an important ethnological collection from New Guinea from Mr. Michael James Leahy.

The full list of accessions is omitted, as for several years, to save considerable expense.

IV. FINANCIAL ADMINISTRATION

E. ROLAND HARRIMAN, Treasurer

FREDERICK H. SMYTH, Bursar

BUDGETARY FUNDS OF 1935

Conforming with instructions from the President that the Museum must operate on a balanced budget (City Maintenance, General and Morris K. Jesup Fund Accounts), the Director submitted to the President and the Executive Committee the request for 1935 requirements. This budget was approved by the Board of Trustees on January 7, 1935, and amounted to \$1,192,520.12 in both receipts and disbursements. In order to balance the budget, however, it was again necessary to request contributions from the employees to the amount of \$70,000.00.

The net receipts from normal income, for the year ending December 31, 1935, were \$1,164,295.20. By the generous response of our Trustees and Members in contributing \$30,400.50, our receipts were increased to \$1,194,695.70, or \$2,175.58 greater than the approved budget.

As a result of special efforts on the part of administrative officers, the disbursements were decreased to \$1,179,695.70, or \$12,824.42 under the approved budget. By the increase in our receipts of \$2,175.58 and the decrease in disbursements of \$12,824.42, we were able to close our books with cash in the amount of \$15,000.00, which was applied to reducing the contributions of employees in the coming budget of 1936.

The above figures not only include actual disbursements of \$1,169,487.67, but obligations and orders contracted for in 1935 amounting to \$10,208.03, which makes a total of \$1,179,695.70. We, therefore, closed our books with all bills paid or allowed for by balances carried forward.

SUMMARY OF ALL ACCOUNTS

The summarized statement of operating costs includes not only our Budgetary Funds, but also Special Funds which are used only for designated purposes. Receipts shown in the Budgetary Funds amount to \$1,194,695.70, and disbursements \$1,169,487.67. The statement of Special Funds shows receipts in the amount of \$388,687.31 and disbursements \$269,307.21.

*Report of the Treasurer*SUMMARY OF RECEIPTS AND DISBURSEMENTS
FOR ALL PURPOSES, 1935

Receipts

City of New York for Maintenance.....		\$393,020.83
<hr/>		
Trustees' Funds:		
Balance, January 1, 1935.....		129,731.04
Income from Endowment Funds....	\$652,723.80	
Contributions of Trustees.....	94,296.20	
Contributions of Members and Friends	144,788.06	
Membership Dues	61,228.00	
Sale of Publications and Exchanges.	25,263.93	
Contributions of Foundations.....	9,800.00	
Contributions of Employees for Gen- eral Purposes	72,074.47	
Natural History Advertising.....	456.68	1,060,631.14
<hr/>		<hr/>
Total Income, Trustees' Funds.....		\$1,190,362.18
<hr/>		<hr/>
Total Income, All Sources.....		\$1,583,383.01
		<hr/>

Disbursements (Operating Costs)

Scientific and Research:

Astronomy	\$25,591.21	
Geology and Invertebrate Palaeon- tology	12,998.54	
Mineralogy	10,015.48	
Mammalogy	61,340.39	
Central Asiatic Exploration and Re- search	5,577.22	
Ornithology	71,510.48	
Vertebrate Palaeontology.....	78,247.92	
Professor Osborn's Science Fund...	5,097.16	
Comparative Anatomy.....	22,425.14	
Anthropology	49,650.18	
Ichthyology	25,570.49	
Herpetology	10,664.89	
Experimental Biology	21,640.27	
Living Invertebrates	14,814.99	
Entomology	23,929.02	
Library	29,612.44	
<hr/>		\$468,685.82

Printing, Books and Publications:	
Printing and Publishing.....	\$59,738.64
Preparation and Exhibition:	
Preparation and Exhibition.....	\$111,769.01
Vertebrate Palaeontology.....	20,103.77
Living Invertebrates.....	14,248.53
	<hr/>
	146,121.31
Educational—Public School Work:	
Public Education	80,018.36
Administration and Operation:	
Administration	\$281,506.51
General Supplies and Expenses....	38,594.75
Heating and Lighting.....	106,933.58
Repairs and Installation.....	79,406.66
Special Repairs	6,795.65
Legal Services	2,084.38
Architects' Services	1,378.26
Pension Fund	31,024.00
Group Life Insurance.....	9,966.63
Natural History Magazine Cost....	36,855.66
Interest on Bank Loans.....	1,880.11
Contributions for General Purposes,	
1934	10.00
Financial Administration	78,495.88
	<hr/>
	674,932.07
Authorized Deficit, 1934.....	9,298.68
	<hr/>
Total, All Costs.....	\$1,438,794.88
	<hr/>
Balance, December 31, 1935.....	\$144,588.13
	<hr/> <hr/>

PERMANENT ENDOWMENT FUND, 1935

The Treasurer, who is also Chairman of the Finance Committee, reports the following additions to the Endowment Fund:

Bequest of Clarence F. Briggs.....	\$200.00
Bequest of Louis V. Bell.....	81,480.22
Bequest of Wood Fosdick.....	1,894.63
Gift of Beatrice, Countess of Granard,	
Gladys Phipps and Ogden L. Mills.	50,000.00
Gift of George T. Bowdoin.....	6,250.00
	<hr/>
	\$139,824.85
	<hr/> <hr/>

The Finance Committee also reports the following transactions during the year:

Receipts

Cash on hand, January 1, 1935.....	\$224,667.77
Cash Received a/c Gifts and Bequests.....	58,950.18
Sale of Securities.....	1,203,269.25
Redemption of Securities.....	686,316.54
Amortization	20,062.34
Cash Adjustment a/c Reorganization.....	3,750.00
Real Estate Operations.....	4,024.66
	<hr/>
	\$2,201,040.74

Disbursements

Purchase of Securities.....	\$2,047,465.02
Real Estate Operation.....	19,836.55
Transferred to Special Funds.....	18,781.58
	<hr/>
	2,086,083.15
	<hr/>
Balance, December 31, 1935.....	\$114,957.59
	<hr/> <hr/>

This balance of \$114,957.59 was invested by the Finance Committee just after the close of 1935.

The Endowment Fund on December 31, 1935, amounted to a book value of \$15,080,581.50 in securities and \$114,957.59 in cash, making a total of \$15,195,539.09.

The market value of the investments, according to December 31st prices, was \$15,280,832.70, an increase over book value amounting to \$200,251.20.

The estimated income from our invested funds, after deducting interest in default on certain holdings, amounts to \$626,214.54, a yield of 4.15 per cent. of the value at which the investments are carried on our books. This yield is based on total book value, and would be higher if we deducted the book value of the securities in default.

The City Bank Farmers Trust Company continued to service our real estate mortgages and properties.

CONTRIBUTIONS FOR GENERAL PURPOSES, 1935

In order to save space under the heading "Contributions for General Purposes" in our printed financial statement, we give below the list of contributors responding to our special appeal to Members and friends:

Abbott, F W.....	\$10.00	Boury, Louis J.....	100.00
Acker, Dr. George W.....	5.00	Boyd, Jackson H.....	10.00
Addinsell, Mrs. H. M.....	10.00	Bradley, T. G.....	5.00
Adelson, Elizabeth.....	1.00	Brewer, Mrs. O. S.....	10.00
Aldridge, Mrs. Walter H.....	20.00	Brewer, Russell P.....	5.00
Alexander, Bart., Sir Douglas.....	100.00	Bridges, Robert.....	10.00
Allan, Miss Rose A.....	2.00	Brower, Miss Mary A.....	10.00
Alvord, George B.....	100.00	Bryant, Emory A., Comdr.....	2.00
Ames, Charles Lesley.....	10.00	Buckner, Mortimer N.....	25.00
Anderson, Henry Hill.....	10.00	Bunce, James H.....	5.00
Andrews, Don Ethelbert.....	5.00	Bungay, Alfred E.....	1.00
Anonymous contributions.....	656.00	Bunnell, Charles E.....	25.00
Appenzeller, Emil.....	2.00	Burlingham, Mrs. Charles.....	10.00
Arnold, Miss Mittie.....	20.00	Burr, George H.....	10.00
Atlee, John L.....	5.00	Burr, Mrs. J. H. Ten-Eyck.....	5.00
Atwood, Mrs. John C., Jr.....	25.00	Burton, J. Campbell.....	10.00
Austin, Mrs. Chellis A.....	25.00	Busey, N. H., Jr.....	20.00
Ayer, Charles F.....	10.00	Calhoun School, The.....	25.00
Babcock, Alfred B.....	1.00	Callaway, William T.....	5.00
Bachmeyer, A. M.....	2.00	Campbell, John C.....	10.00
Bacon, Mrs. Daniel.....	10.00	Campbell, Wallace.....	3.00
Bagster-Collins, Mrs.....	5.00	Cannon, Le Grand.....	10.00
Baker, James C.....	1.00	Carnegie, Andrew, 2nd.....	25.00
Baldwin, Miss Helen A.....	3.00	Carter, Ernest T.....	5.00
Barnard, Frederic.....	25.00	Casamajor, Miss Martha.....	5.00
Barnes, Mrs. A. C.....	10.00	Caskey, R. C.....	2.00
Barnes, H. H., Jr.....	10.00	Cass, Charles A.....	10.00
Barney, A. D.....	50.00	Chambers, Robert A.....	10.00
Barr, Thomas T., Jr.....	10.00	Champlin, George B.....	10.00
Barton, Donald C.....	5.00	Chappell, Mrs. Howard F.....	5.00
Bateson, Mr. and Mrs. E. F.....	10.00	Childs, Miss Mira.....	1.00
Baum, Mrs. Dwight J.....	5.00	Christman, Charles G.....	35.00
Baur, W. C.....	5.00	Chrystie, Mrs. Grisella K.....	20.00
Baxter, Miss Caroline N.....	15.00	Chubb, Mrs. Hendon.....	25.00
Bay, W. D.....	1.00	Church, E. D.....	25.00
Beard, Daniel Carter.....	5.00	Clark, George H.....	25.00
Bebout, Edwin.....	5.00	Clark, Mrs. J. William.....	90.00
Beckhard, Martin.....	10.00	Clarke, Caspar W.....	2.50
Begle, Miss Grace G.....	2.00	Cluett, Walter H.....	10.00
Bell, Ernest L.....	5.00	Cohen, William N.....	10.00
Bell, Mrs. Louis V.....	25.00	Cohn, Dr. Sidney.....	5.00
Benjamin, Henry R.....	25.00	Coldwell, P. C., III.....	1.00
Benson, Samuel.....	5.00	Coley, H. W.....	5.00
Bernhard, Richard J.....	10.00	Colgate, Miss Josephine.....	25.00
Bernheim, Dr. Alice R.....	10.00	Colgate, Mrs. Russell.....	25.00
Betts, Mrs. Charles M.....	5.00	Colgate, Russell.....	25.00
Bidwell, Ethel M.....	10.00	Colie, Stuart Edgar.....	1.00
Bingham, William, 2nd.....	500.00	Comer, George.....	10.00
Blazewicz, Edmund.....	2.00	Conley, Mrs. Louis D.....	25.00
Bolton, Arthur.....	3.00	Conroy, Katherine L.....	25.00
Borcherdt, W. O.....	10.00	Cooke, C. Montague, Jr.....	50.00
Bourdelle, Mrs. Pierre.....	10.00	Cooper, Henry S. F.....	10.00

Cory, Henry.....	5.00	Gammell, William.....	50.00
Coshland, Mrs. Lee B.....	10.00	Gardner, Miss Evelyn E.....	1.00
Cox, E. H.....	1.00	Gates, Artemus L.....	10.00
Crane, Miss Clara L.....	2.00	Gates, Mrs. Artemus L.....	25.00
Crary, Edith I.....	10.00	Gifford, Paul C.....	1.00
Cremer, Miss Marie B.....	3.00	Gill, Bennington P.....	3.00
Crosby, Albert H.....	10.00	Gilman, Miss Helen.....	1.00
Crosby, Halsey E.....	5.00	Gilmour, William P.....	100.00
Cullman, Mrs. Joseph F., Jr.....	10.00	Glennie, Charles D.....	10.00
Dalton, Hubert K.....	250.00	Goler, Mrs. Frank H.....	5.00
Darlington, Frank G., Jr.....	10.00	Goff, Miss Jean C.....	1.50
Davis, Hon. Dwight F.....	50.00	Goldwater, Henry.....	10.00
Davis, Mrs. J. Edward.....	10.00	Goodwin, James L.....	100.00
Davis, Mrs. George H.....	10.00	Gordon, Mrs. Effie Mead.....	5.00
Davis, Philip M., Jr.....	5.00	Gould, John B.....	5.00
Davison, Miss Ethelyn.....	5.00	Graham, Charles V.....	15.00
Davison, Mrs. Henry P.....	100.00	Grant, William T.....	20.00
Dearborn, D. B.....	10.00	Gray, Minnie G.....	3.00
de Camp, L. Sprague.....	25.00	Greene, Henry F.....	5.00
Demonet, E. A., Jr.....	5.00	Gross, Mrs. Etta.....	5.00
Deveson, Miss Addie E.....	5.00	Grover, C. Herbert.....	2.00
Dillon, Mrs. Clarence.....	15.00	Guggenheim, Simon.....	100.00
Dimock, E. J.....	10.00	Guion, Mrs. C. C.....	5.00
Dominick, Gayer G.....	20.00	Gwinn, Ralph W.....	5.00
Dominick, Richard B.....	5.00	Haight, Mrs. H. D.....	10.00
Donaldson, Francis.....	10.00	Hamann, W. A.....	25.00
Donaldson, Mrs. John W.....	20.00	Hammett, T. H.....	3.00
Donovan, Miss Marie E.....	1.00	Hammond, E. C.....	10.00
Dooley, C. R.....	5.00	Hancock, L. P.....	2.00
Dow, Alex.....	100.00	Hansell, Col. H. S.....	5.00
Dows, David.....	25.00	Hardenbrook, Mrs. Lulu G.....	10.00
Drake, Miss G. M.....	2.00	Harkavy, Mrs. Anna S.....	1.00
Du Bois, Miss Margaret.....	10.00	Harkness, Edward S.....	1,000.00
Duryee, Samuel Sloan.....	5.00	Harkness, William Hale.....	100.00
Dwight, Mrs. Winthrop.....	10.00	Harriman, Mary W., Trust.....	1,000.00
Earnshaw, Albert F.....	1.00	Harris, Alfred.....	5.00
Eckstein, Sigmund.....	10.00	Harris, Henry U.....	20.00
Ellsworth, Mrs. J. Magee.....	5.00	Hart, Alfred.....	3.00
Emmons, Mrs. Arthur B.....	100.00	Hart, Mrs. John I.....	10.00
Engleman, Miss Grace G.....	25.00	Hauswirth, Dr. Louis.....	10.00
Essick, Charles R.....	10.00	Hayden, Sherman S.....	1.00
Essick, W. W.....	10.00	Heiser, Miss Emilie M.....	5.00
Evans, Margaret.....	2.00	Hereford, Mrs. M.....	20.00
Ewing, George R. M.....	10.00	Hess, George H., Jr.....	5.00
Fee, H. A.....	5.00	Hickox, Mrs. Charles V.....	50.00
Ferguson, Charles, M.D.....	5.00	Hicks, H. G.....	1.00
Ferguson, Mrs. Sydney.....	5.00	Hill, Clarence H.....	10.00
Field, E. B.....	3.00	Hill, Mrs. H. H.....	3.00
Filley, Oliver D.....	10.00	Hird, Miss Martha.....	50.00
Findlay, Dr. M. C.....	5.00	Hird, Miss Mary E.....	15.00
Flemer, J. A.....	3.00	Hochschild, Harold K.....	50.00
Foley, H. S.....	10.00	Hollings, John F.....	1.00
Forman, W. A.....	5.00	Hollis, Edward P.....	5.00
Foster, C. H.....	5.00	Hollwegs, Miss Anna.....	5.00
Foster, W. Edward.....	10.00	Holmes, Mrs. F. S.....	25.00
Franck, Ernst T.....	5.00	Holt, Mrs. Robert S.....	5.00
Freeman, Mrs. Edward W.....	25.00	Holtzinger, Hanns.....	3.00
Frissell, Dr. Lewis F.....	25.00	Hooker, Miss Adelaide F.....	5.00
Frost, Mrs. Frank J.....	2.00	Hooker, Davenport.....	25.00
Gallop, Miss E. Lena.....	5.00	Horton, Charles Bertram.....	2.00

Hotopp, A. H., Jr.....	2.00	Lewisohn, Mrs. Frederick.....	100.00
Howard, John K.....	5.00	Libere, Frank.....	1.00
Howe, Bruce.....	10.00	Lichtenstein, Alfred F.	100.00
Huber, Mrs. J. M.....	25.00	Lilienthal, Howard, M.D.....	5.00
Huberth, Harry G.....	10.00	Lindsley, Halstead.....	10.00
Hughes, John A.....	1.52	Littauer, Lucius N.....	25.00
Huntington, R. W.....	10.00	Livingston, Henry S.....	10.00
Hutchins, A. S.....	50.00	Livingston, Robert F.....	2.00
Huyck, Francis C.....	10.00	Lloyd, Malcolm, Jr.....	10.00
Ireland, Miss Elisabeth.....	10.00	Loring, Mrs. O. L.....	20.00
Jackson, A. V. Williams.....	5.00	Lorsch, Henry.....	10.00
Jacobson, H. P., M.D.....	5.00	Loupos, Nico G.....	5.00
James, Harry E.....	10.00	Luce, Henry R.....	25.00
Jamison, W. W.....	10.00	Lynch, Mrs. John H.....	10.00
Jansen, Miss Mary E.....	1.00	Mace, C. A.....	5.00
Jaretzki, Mrs. Alfred.....	25.00	Mackay, Miss Eleanor C.....	10.00
Jennings, S. E.....	5.00	Magruder, Mrs. J. W.....	5.00
Jensen, Herman H., M.D.....	3.00	Mallinckrodt, Edward, Jr.....	100.00
Jervey, Huger W.....	10.00	Mallory, Clifford D.....	25.00
Jewett, Mrs. H. E.....	50.00	Maloy, John P.....	5.00
Joachim, Earl E.....	1.00	Mann, Mrs. George Williamson.....	10.00
Johnson, W. A.....	10.00	Manning, Ed. R.....	1.00
Johnston, Percy H.....	25.00	Martin, Mrs. Riccardo.....	5.00
Jones, John Price.....	10.00	Marvin, Miss Hannah E.....	1.00
Jones, Meriwether.....	10.00	Marx, Walter A.....	2.00
Jones, R. L.....	5.00	Mason, Miss Mary J.....	5.00
Jordan, C. Victor.....	2.50	Mason, Samuel.....	3.00
Josephson, Edgar.....	5.00	Mathews, Frank S., M.D.....	25.00
Judd, Mrs. G. H.....	25.00	Matthews, H. A.....	15.00
Judson, Junius R.....	5.00	Matthies, Miss Katharine.....	10.00
Kahn, Milton.....	10.00	Maurice, Miss Marian B.....	10.00
Kappes, Herman.....	50.00	Maxwell, William.....	25.00
Kaufmann, H. M.....	15.00	Mayer, A. Osborne.....	5.00
Keast, G. R.....	10.00	McCanliss, Lee.....	10.00
Keech, Mrs. Frank B.....	10.00	McClain, E. L., Jr.....	5.00
Keith, Edward D.....	6.00	McCrea, Nelson G.....	10.00
Kellar, Chambers.....	5.00	McCreery, H. F.....	10.00
Kent, William B.....	1.00	McCulloh, James S.....	50.00
Kerr, Stewart.....	1.00	McDowell, Miss Louise A.....	5.00
Kimball, Roy E.....	2.00	McIntosh, Allan J.....	50.00
Kindergarten 6B, Teachers Ass'n...	25.00	McVitty, Samuel Herbert.....	10.00
Kinhead, E. F.....	1.00	Meadow, Meyer.....	2.00
Klaman, Philip.....	10.00	Merriam, Dr. C. Hart.....	10.00
Knapp, Mrs. Edgar A.....	5.00	Metcalf, Miss Alice.....	10.00
Kniazzezh, Alfredo.....	2.00	Metcalf, Mrs. M. B.....	20.00
Knight, Alfred.....	10.00	Meyer, Arthur S.....	5.00
Kuhnberg, Leon.....	5.00	Miller, A. J.....	3.00
Kunhardt, Mrs. Henry R.....	10.00	Miller, Clement W.....	2.00
Kuttroff, Adolf.....	25.00	Miller, Mrs. Ethel H.....	2.00
Kuttroff, Edwin.....	50.00	Miller, Mrs. H. Strongman.....	25.00
Lamont, Thomas S.....	35.00	Miller, Mrs. Henry Wise.....	25.00
Lamont, Thomas W.....	500.00	Miller, Mr. and Mrs. Roswell, Jr...	200.00
Lattimore, Miss Frances L.....	10.00	Milliken, Arthur N.....	50.00
Lawrence, Townsend.....	50.00	Minkin, Dr. J.....	3.00
Leahey, George A., M.D.....	5.00	Mitchell, Margaret A.....	2.00
Lehman, Arthur.....	25.00	Mitten, H. W., D.D.S.....	10.00
Leonard, Miss Ella S.....	1.00	Moore, Robert T.....	10.00
Lesemann, Adolph C., Jr.....	5.00	Moore, Mrs. William H.....	100.00
Levi, Julian Clarence.....	10.00	Morgan, Dr. Audrey G.....	1.00

Morgan, D. P.....	15.00	Reed, Mrs. James H.....	50.00
Morgan, Henry.....	10.00	Reed, Victor A.....	5.00
Morris, Mrs. Dave H.....	10.00	Regan, James D.....	10.00
Morris, Mr. and Mrs. Dave H., Jr.	5.00	Reichle, Miss Ursula.....	2.00
Morris, Francis J. A.....	5.00	Reilly, Marigold A.....	1.00
Morrow, Brig. Gen. Jay J.....	10.00	Reimer, Marie.....	10.00
Moser, Miss Mathilde.....	2.00	Remley, Ralph D.....	5.00
Mosman, Philip A.....	10.00	Reynolds, John E.....	5.00
Mowry, Miss Helen A.....	5.00	Rice, Neil W.....	50.00
Myers, Frank J.....	50.00	Richard, Harold C.....	25.00
Necarsulmer, Mrs. H.....	3.00	Richards, Miss Edith G.....	10.00
Nelson, Miss Bertha I.....	5.00	Richardson, Jeffers.....	1.00
Nelson, Miss Cornelia P.....	5.00	Ridgway, Robert.....	10.00
Newberry, Mrs. W. E.....	5.00	Ripley, Alfred L.....	25.00
Nichols, Dr. Estes.....	2.00	Ripley, Charles.....	5.00
Nichols, L. Nelson.....	5.00	Ritter, Fred.....	3.00
Nicholson, Bertram.....	5.00	Ritz, Harold A.....	10.00
Norcross, Grenville H.....	25.00	Roberts, Thomas S.....	5.00
Norton, Mrs. Helen Bender.....	10.00	Robins, Thomas.....	5.00
Nutting, Mrs. Mary B.....	5.00	Rogers, Mrs. James Gamble.....	5.00
Oenslager, George.....	10.00	Rogers, Oscar H.....	10.00
Oesterreicher, S. I.....	10.00	Ross, William.....	3.98
O'Neill, Miss Anna S.....	2.00	Round, Dr. Eda M.....	1.00
Osborn, Chase S.....	5.00	Rueff, Mrs. André E.....	1.00
Osborne, Thomas D.....	10.00	Runsey, W. E.....	2.00
Ozias, Ramon E., Sr.....	3.00	Russell, Dr. Henry Norris.....	10.00
Paley, William S.....	250.00	Ruwwe, Frank B.....	1.00
Palmer, Richard N.....	10.00	Sage, A. G. C.....	50.00
Pappenheimer, Dr. A. M.....	10.00	Sage, Mrs. H. W.....	10.00
Parent-Teachers Ass'n., P. S. 36....	5.00	Sargent, Ara Nathaniel, M.D.....	5.00
Parsons, Miss Bertha R.....	10.00	Sargent, H. E.....	15.00
Parsons, Mrs. Frederic T.....	10.00	Schaeffer, Bobb.....	5.00
Patrick, Ralph C.....	2.00	Scheuer, Mrs. S. H.....	5.00
Paxson, Owen S.....	50.00	Schieffelin, William J., Jr.....	10.00
Peabody, Rev. Endicott.....	100.00	Schiff, John M.....	25.00
Peabody, Miss Mary B.....	1.00	Schmucker, S. C.....	3.00
Peck, Mrs. Charles R.....	2.00	Schniewind, Ewald H.....	10.00
Perkins, George W.....	100.00	Scholl, Miss Katharine.....	5.00
Perkins, Henry A.....	10.00	Schwab, Miss Katharine F.....	10.00
Peters, Thomas M.....	25.00	Schwarz, Miss Emilie E.....	25.00
Peters, W. Y.....	10.00	Selassie, Emperor Haile, 1st.....	300.00
Pettee, Herbert M.....	10.00	Second Panel Sheriff's Jury, County	
Pettigrew, E. S.....	100.00	of N. Y.....	25.00
Pfeiffer, Mrs. G. A.....	100.00	Semken, Dr. George H.....	25.00
Phelps, Captain John J.....	34.00	Sharpe, Miss Ellen D.....	10.00
Phillips, Mrs. Alfred Noroton.....	10.00	Sharpe, Henry D.....	100.00
Pierrepoint, Miss Anna J.....	20.00	Shaw, Thomas B., M.D.....	5.00
Pierrepoint, Miss Julia J.....	50.00	Shearson, Edward.....	100.00
Pierrepoint, R. Stuyvesant.....	25.00	Shepard, Charles S.....	25.00
Pike, Sumner T.....	10.00	Shepard, Finley J.....	100.00
Pinger, Miss Lulu M.....	1.00	Shepard, Miss Marguerite D.....	10.00
Pomeroy, Katherine.....	100.00	Shiras, Mrs. George, III.....	50.00
Poor, Hustace H.....	2.00	Shoemaker, Ernest.....	10.00
Post, Abram S.....	10.00	Shrewsbury, Miss Ethel M.....	2.00
Pratt, Harold I.....	500.00	Shutes, Marianna.....	2.00
Pratt, Mrs. C. M.....	100.00	Siedenburb, Mrs. R.....	10.00
Prentice, G. E.....	25.00	Siegmán, Simon.....	10.00
Pritham, F. J., M.D.....	2.00	Sikorsky, Igor I.....	10.00
Radlo, Miss Dora A.....	5.00	Skinner, Milton P.....	5.00

Sloan, William E.....	10.00	von Bernuth, Miss Louise E.....	10.00
Slosson, Mrs. Edwin E.....	5.00	von Lilienthal, Albert W.....	20.00
Smith, Abel I.....	10.00	Walcott, Helen.....	2.00
Smith, Cedric E.....	10.00	Walden School, The.....	5.00
Smith, Frank G.....	5.00	Walker, Miss Miriam Dwight.....	100.00
Smith, Morris K.....	5.00	Walpole, Mrs. B. M.....	2.00
Smoot, A. M.....	10.00	Walton High School.....	7.00
Smythe, Arthur L.....	5.00	Wanzer, W. G.....	2.00
Snare, Frederick.....	25.00	Ward, H. E.....	25.00
Snedeker, Milton.....	10.00	Warner, Irving.....	5.00
Sokoloff, Miss Jennie.....	2.00	Warren, Frank M.....	3.00
Spafford, Mrs. J. H.....	15.00	Watson, Esther Josephine.....	1.00
Spofford, Carl L.....	10.00	Watt, Miss Violette L. H.....	1.00
Sprague, Mrs. Isaac.....	5.00	Webster, Mr. and Mrs. Laurence J..	10.00
Spruijt, F. J.....	2.00	Weeks, Miss Isabel M.....	3.00
Staff of Public School 61.....	4.00	Weil, Mrs. Sylvan E.....	25.00
Stanley, Ethan B.....	25.00	Weitzenberg, W.....	5.00
Stansfield, Oliver H.....	2.00	Welles, Robert.....	3.00
Starrett, Mrs. Paul.....	2.00	Wells, Gabriel.....	20.00
Steiner, Mrs. Estella R.....	5.00	Welter, A. S.....	2.00
Sternberger, Brig. Gen. H. S.....	25.00	Weston, Dr. Edward.....	50.00
Stieglitz, Mr. and Mrs. Albert.....	10.00	Wharton, William P.....	50.00
Stimpson, Miss May A.....	2.00	Wheeler, Harvey.....	5.00
Stoppel, Lee L.....	5.00	Wheeler, John B.....	5.00
Strelitz, Miss Harriet M.....	2.00	White, Miss M. R.....	10.00
Strietmann, William H., M.D.....	5.00	White, Mrs. John J., Sr.....	100.00
Sumers, George W.....	10.00	Whitehead, Mrs. John Jay, Jr.....	10.00
Sumner, Graham.....	50.00	Whitney, Cornelius V.....	100.00
Sutphen, D. D.....	25.00	Wiese, Mrs. Milton V.....	5.00
Swann, Norman Nygaard.....	10.00	Wilke, F. Richard.....	10.00
Terwilliger, Mrs. B. H.....	2.00	Wilkie, John L.....	10.00
Thayer, Mrs. Ezra Ripley.....	500.00	Willey, Arthur.....	10.00
Thompson, Mrs. William Reed.....	25.00	Williams, David McK.....	5.00
Thomsen, Carl.....	3.00	Williams, Fred C.....	3.00
Thorne, Victor C.....	100.00	Wilson, Mrs. Etta S.....	3.00
Torrance, Norman F.....	10.00	Wilson, Orme.....	10.00
Trafton, Mrs. Frances D.....	5.00	Wiman, Dwight Deere.....	25.00
Troie, Dr. F. A.....	5.00	Winslow, Winthrop C.....	5.00
Tuckerman, L. C.....	10.00	Wood, Meredith B.....	10.00
Tunney, Mrs. Gene.....	50.00	Woolf, Mrs. Louis J.....	10.00
Turnbull, E. J.....	2.00	York, Frederick W.....	7.00
Uhl, Oswald W.....	250.00	Young, Hiram G.....	1.00
Vanderbilt, Mrs. W. K.....	500.00	Zellers, John A.....	5.00
van Doornick, Dr. F. N. H.....	2.00	Zinsser, J. S.....	25.00
Van Fleet, Stephen.....	2.00		
VanLaer, J. A.....	2.50		
Van Vliet, Jno. J.....	5.00		
			<hr/>
			\$14,900.50
			<hr/>

CONTRIBUTIONS TO CENTRAL ASIATIC EXPEDITIONS FUND, 1935

Alvord, George B.....	\$100.00	Manierre, Charles E.....	10.00
Armstrong, S. T.....	25.00	McClintock, Gilbert S.....	100.00
Baker, Mrs. James McF.....	10.00	McGregor, Tracy W.....	25.00
Beach, Goodwin B.....	10.00	Merle-Smith, Mrs. Kate F.....	100.00
Beckwith, Mrs. Daniel.....	100.00	Milliken, Arthur N.....	200.00
Benjamin, Henry R.....	25.00	Mosman, Philip A.....	25.00
Boise, Charles Watson.....	100.00	Morgan, J. P.....	500.00
Brewster, Frank.....	10.00	Osterhout, George E.....	50.00
Brill, Dr. Abraham A.....	10.00	Paxson, Owen S.....	50.00
Brune, Fred H.....	5.00	Philipp, Philip B.....	100.00
Casamajor, Miss Martha.....	5.00	Raymond, Dr. R. O.....	25.00
Church, E. D.....	50.00	Rebmann, G. Ruhland, Jr.....	5.00
Codman, R. S.....	10.00	Round, Dr. Eda M.....	1.00
Dederer, Miss Pauline H.....	2.00	Rumsey, W. E.....	5.00
Esberg, Henry.....	10.00	Sargent, Homer E.....	15.00
Farr, Miss Shirley.....	200.00	Sarmiento, Mrs. F. J.....	10.00
Fuller, Mrs. Eugene.....	25.00	Schmucker, S. C.....	3.00
Fuller, Richard E.....	25.00	Schwarz, Miss Emilie E.....	25.00
Gammell, William.....	25.00	Smith, F. Drexel.....	10.00
Garrett, John W.....	50.00	Stewart, Colin C.....	10.00
Grossmann, Mrs. Edward A.....	2.00	Stone, Julius F.....	500.00
Harriman, Mary W., Trust.....	100.00	Wanzer, W. G.....	3.00
Haskins, Caryl Parker.....	10.00	Wherry, Dr. William B.....	10.00
Hess, George H., Jr.....	5.00	White, Rev. Eliot.....	1.00
Hills, Mrs. George F.....	5.00	Worcester, Wilfred J.....	20.00
Hill, Edward J.....	5.00	Young, Mrs. A. Murray.....	10.00
Lamont, T. W.....	100.00	Ziegler, Miss Jessie.....	3.00
Lerner, Michael.....	100.00		
Ludlum, Clarence A.....	25.00		
			<u>\$2,965.00</u>

FINANCIAL STATEMENT, 1935

ENDOWMENT AND INVESTMENT

UNRESTRICTED ENDOWMENT FUNDS:

	Par Value	Book Value
George F. Baker Fund.....	\$195,050.00	\$134,372.60
Louis V. Bell Fund.....	93,554.07	83,272.84
Wood Fosdick Fund.....	1,009,591.66	1,022,758.36
General Endowment Fund.....	1,795,210.00	1,753,521.75
Anna M. Harkness Fund.....	788,600.00	951,375.76
Collis P. Huntington Fund.....	49,900.00	49,986.05
Ogden Mills Endowment Fund.....	205,000.00	202,800.19
John D. Rockefeller, Jr., Fund.....	881,664.50	1,069,889.05
The Sage Fund.....	1,650,853.00	1,514,641.28
Sixtieth Anniversary Endowment.....	1,341,280.00	1,449,713.05
Charles M. Jesup Trust.....	100,000.00	100,000.00

RESTRICTED ENDOWMENT FUNDS:

Morris K. Jesup Fund.....	{ 5,904,692.50 }	5,772,548.72
	{ £50,000 }	
Anthropology Special Fund.....	800.00	801.86
James Arthur Research Fund.....	33,700.00	29,133.76
Matilda W. Bruce Fund.....	11,900.00	11,900.00
Bashford Dean Ichthyological Library Fund.....	4,100.00	3,900.24
Anson W. Hard Library Fund.....	5,300.00	5,303.76
J. P. Morgan Fund.....	475,750.00	443,774.54
Osborn Palaeontologic Research Fund.....	3,300.00	2,906.24
Physical Anthropology Fund.....	12,222.50	11,587.99
Margaret Olivia Sage Fund.....	10,600.00	10,684.00
Boyce Thompson Mineral Collection Fund.....	50,000.00	50,000.00
Jonathan Thorne Memorial Fund.....	29,300.00	28,347.75
Ralph Winfred Tower Memorial Fund.....	23,122.50	22,372.54
Vertebrate Palaeontology Field Fund.....	25,500.00	25,002.49
Vertebrate Palaeontology Special Fund.....	800.00	801.88
Frederick G. Voss Anthropology and Archaeology Fund	295,500.00	288,723.26
Wallace Memorial Fund.....	14,500.00	14,433.75

RESTRICTED INVESTMENT FUNDS:

African Hall Group Fund.....	0.00	15,000.00
Boyce Thompson Mineral Collection Installation Fund	22,300.00	22,413.50
	\$15,034,090.73	\$15,091,967.21
	£50,000	
Uninvested Cash.....		114,957.59
		<u>\$15,206,924.80</u>

ENDOWMENT AND INVESTMENT ACCOUNT

Receipts and Disbursements, 1935

GENERAL ENDOWMENT FUNDS—(Unrestricted Funds):

	Balance Jan. 1	Receipts	Disbursements	Balance Dec. 31
General Endowment Fund: \$39,964.24				
Bequest of				
Clarence F. Briggs ..		\$200.00		
Amortization Payments		20,000.00		
Sale and Redemption of				
Securities		42,118.10		
Purchase of Securities ..			\$56,315.69	
Loan to Louis V. Bell				
Fund			1,935.00	
Loan to Wood Fosdick				
Fund			330.59	
Loan Repayments by				
Wood Fosdick Fund		135.33		
Loan to General Endow-				
ment Fund (Foreclo-				
sure Sale Costs)			2,926.53	
Loan Repayments by				
General Endowment				
Fund (Refund of				
Foreclosure Sale				
Costs)		72.63		
Loan to Morris K.				
Jesup Fund			9,472.07	
Loan Repayments by				
Morris K. Jesup Fund		2,276.04		
Loan to the Sage Fund			25.00	
	<u>\$39,964.24</u>	<u>\$64,802.10</u>	<u>\$71,004.88</u>	<u>\$33,761.46</u>
George F. Baker Fund: \$1.02				
Sale and Redemption of				
Securities		\$20,962.57		
Purchase of Securities ..			\$20,928.50	\$35.09
Louis V. Bell Fund:				
Bequest of				
Louis V. Bell		\$605.55		
Amortization Payments.		62.34		
Proceeds from Reor-				
ganization		3,750.00		
Sale and Redemption of				
Securities		6,124.57		
Purchase of Securities..			\$10,464.26	
Loan from General En-				
dowment Fund		1,935.00		
Foreclosure Sale Costs ..			1,935.00	
		<u>\$12,477.46</u>	<u>\$12,399.26</u>	<u>\$78.20</u>
Wood Fosdick Fund: \$25,882.92				
Bequest of				
Wood Fosdick		\$1,894.63		
Sale and Redemption of				
Securities		136,945.35		
Purchase of Securities..			\$164,659.03	
Loan from General En-				
dowment Fund		330.59		

ENDOWMENT AND INVESTMENT ACCOUNT (Continued)

	Balance Jan. 1	Receipts	Disbursements	Balance Dec. 31
Loan Repayment to General Endowment Fund			\$135.33	
Foreclosure Sale Costs..			317.60	
Refund of Foreclosure Sale Costs		\$122.34		
	<u>\$25,882.92</u>	<u>\$139,292.91</u>	<u>\$165,111.96</u>	<u>\$63.87</u>
Anna M. Harkness Fund: \$153,069.50				
Sale and Redemption of Securities		\$243,656.92		
Purchase of Securities..			\$396,689.66	\$36.76
Collis P. Huntington Fund:				
Redemption of Securi- ties		\$102.00		\$102.00
Ogden Mills Endowment Fund: \$8.25				
Gift of Beatrice, Countess of Granard, Gladys Phipps, and Ogden L. Mills		\$50,000.00		
Redemption of Securi- ties		53,373.71		
Purchase of Securities..			\$103,352.94	
	<u>\$8.25</u>	<u>\$103,373.71</u>	<u>\$103,352.94</u>	<u>\$29.02</u>
John D. Rockefeller, Jr., Fund: \$84.34				
Sale and Redemption of Securities		\$106,957.00		
Purchase of Securities..			\$83,931.75	\$23,109.59
The Sage Fund: \$58.29				
Sale and Redemption of Securities		\$58,426.16		
Purchase of Securities..			\$54,228.51	
Loan from General En- dowment Fund		25.00		
Foreclosure Sale Costs.			25.00	
	<u>\$58.29</u>	<u>\$58,451.16</u>	<u>\$54,253.51</u>	<u>\$4,255.94</u>
Sixtieth Anniversary Endow- ment: \$3.95				
Gift of George T. Bowdoin..		\$6,250.00		
Sale and Redemption of Securities		441,553.68		
Purchase of Securities..			\$442,553.06	
	<u>\$3.95</u>	<u>\$447,803.68</u>	<u>\$442,553.06</u>	<u>\$5,254.57</u>
Total General Endow- ment Funds	\$219,072.51	\$1,197,879.51	\$1,350,225.52	\$66,726.50

ENDOWMENT AND INVESTMENT ACCOUNT (Continued)

SPECIAL ENDOWMENT FUNDS—(Restricted Funds):

	Balance Jan. 1	Receipts	Disbursements	Balance Dec. 31
Anthropology Special Fund:				
Sale and Redemption of Securities		\$375.54		
Purchase of Securities..			\$311.24	\$64.30
Matilda W. Bruce Fund:				
Redemption of Securities		\$102.00		\$102.00
Anson W. Hard Library Fund:	\$21.75			
Redemption of Securities		\$102.00		
Purchase of Securities			\$103.76	\$19.99
Morris K. Jesup Fund:	\$3,706.96			
Sale and Redemption of Securities		\$697,667.76		
Purchase of Securities..			\$650,336.14	
Income held in anticipation of foreclosure..		3,816.70		
Loan from General Endowment Fund		9,472.07		
Loan Repayments to General Endowment Fund			2,276.04	
Foreclosure Sale Costs..			14,619.43	
	\$3,706.96	\$710,956.53	\$667,231.61	\$47,431.88
J. P. Morgan Fund:	\$18.45			
Sale and Redemption of Securities		\$24,123.15		
Purchase of Securities..			\$24,057.51	\$84.09
Osborn Palaeontologic Research Fund:	\$42.50			
Sale and Redemption of Securities		\$1,353.12		
Purchase of Securities..			\$1,348.74	\$46.88
Physical Anthropology Fund:	\$81.23			
Redemption of Securities		\$102.00		
Purchase of Securities..			\$103.49	\$79.74
Ralph Winfred Tower Memorial Fund:	\$79.00			
Redemption of Securities		\$102.00		
Purchase of Securities..			\$103.49	\$77.51
Margaret Olivia Sage Fund:				
Sale of Securities.....		\$9,771.00		
Purchase of Securities..			\$9,744.00	\$27.00
Sixtieth Anniversary Endowment:				
James Arthur Research Fund:	\$79.37			
Sale of Securities.....		\$4,672.75		
Purchase of Securities..			\$4,668.76	\$83.36

ENDOWMENT AND INVESTMENT ACCOUNT

(Continued)

	Balance Jan. 1	Receipts	Disbursements	Balance Dec. 31
Bashford Dean Ichthyological Library Fund:				
Redemption of Securities	\$43.50	\$102.00		
Purchase of Securities..			\$103.74	\$41.76
Vertebrate Palaeontology Field Fund:				
Redemption of Securities	\$46.25	\$102.00		
Purchase of Securities..			\$103.74	\$44.51
Vertebrate Palaeontology Special Fund:				
Sale and Redemption of Securities		\$375.54		
Purchase of Securities..			\$311.26	\$64.28
Frederick G. Voss Anthropology and Archaeology Fund:				
Sale and Redemption of Securities		\$14,286.29		
Purchase of Securities..			\$14,283.00	\$3.29
Wallace Memorial Fund:	\$20.00			
Redemption of Securities		\$7,347.00		
Purchase of Securities			\$7,331.25	\$35.75
Total Special Endowment Funds	\$4,139.01	\$773,872.92	\$729,805.59	\$48,206.34
SPECIAL INVESTMENT FUNDS—(Restricted Funds):				
African Hall Group Fund:				
Sale of Securities.....		\$18,781.58		
Transferred to Special Funds Account			\$18,781.58	
The Boyce Thompson Mineral Collection Fund:	\$1,456.25			
Purchase of Securities..			\$1,431.50	\$24.75
Total Special Investment Funds	\$1,456.25	\$18,781.58	\$20,213.08	\$24.75
SUMMARY				
General Endowment Funds	\$219,072.51	\$1,197,879.51	\$1,350,225.52	\$ 66,726.50
Special Endowment Funds	4,139.01	773,872.92	729,805.59	48,206.34
Special Investment Funds	1,456.25	18,781.58	20,213.08	24.75
Total Endowment and Investment	\$224,667.77	\$1,990,534.01	\$2,100,244.19	\$114,957.59

CITY MAINTENANCE ACCOUNT ***Receipts, 1935****Capital Fund:**

Balance, January 1, 1935.....		\$15,000.00
-------------------------------	--	-------------

Department of Parks, City of New York, 1934:**Expenses for Other than Personal Service:**

1410 Fuel Supplies.....	\$353.59	
1421 Telephone Service.....	100.00	\$453.59
		<hr/>

Department of Parks, City of New York, 1935:

Salaries, Regular Employees.....	\$352,832.27	
Salaries, Temporary Employees (Special Repairs)	5,476.89	358,309.16
		<hr/>

Expenses for Other than Personal Service:

1410 Fuel Supplies.....		34,711.67
		<hr/>

Total net receipts for the maintenance of all departments.....		393,474.42
		<hr/>

		\$408,474.42
		<hr/>
		<hr/>

* The annual appropriation of the City can be used only for the maintenance of the Museum, and is inadequate for this purpose. It cannot be used for the purchase of specimens or for the expenses of exploring and collecting expeditions. The deficiency in maintenance for 1935, amounting to \$345,800.20, has been met from the Trustees' General Account.

CITY MAINTENANCE ACCOUNT

Disbursements, 1935

Administration and Operation:

Administration	\$218,781.23	
General Supplies and Expenses.....	100.00	
Heating and Lighting.....	67,375.68	
Repairs and Installation.....	47,459.37	
Special Repairs.....	5,476.89	
Financial Administration.....	27,457.24	\$366,650.41

Scientific and Research:

Mineralogy	\$1,683.00	
Ornithology	1,537.00	
Vertebrate Palaeontology.....	780.00	
Anthropology	1,537.00	
Living Invertebrates.....	3,001.00	
Library	2,847.23	11,385.23

Educational—Public School Work:

Public Education.....	15,438.78
-----------------------	-----------

Total net disbursements for the maintenance of all departments..... \$393,474.42

Capital Fund:

Balance, December 31, 1935.....	15,000.00
	<u>\$408,474.42</u>

GENERAL ACCOUNT

Receipts, 1935

Balance, January 1, 1935:

Cash \$157,403.90

Loans Receivable:

Sixtieth Anniversary Endowment.....	\$87,541.05	
African Hall Construction.....	44,301.84	
Authorized Deficit of 1931.....	26,454.53	
Authorized Deficit of 1934.....	9,298.68	
Natural History Magazine.....	25,000.00	192,596.10

\$350,000.00Reserved for payment of Bank Loan..... 350,000.00

Income from Investment and Trust Funds:

General Endowment Fund.....	\$74,191.31	
George F. Baker Fund.....	4,981.94	
Louis V. Bell Fund.....	1,761.81	
Wood Fosdick Fund.....	43,189.01	
Anna M. Harkness Fund.....	40,429.16	
Collis P. Huntington Fund.....	2,498.64	
Charles M. Jesup Trust Fund.....	2,414.96	
Charles S. Keene Trust.....	8,098.01	
Ogden Mills Endowment Fund.....	6,582.32	
John D. Rockefeller, Jr., Fund.....	47,776.05	
The Sage Fund.....	63,355.81	
Sixtieth Anniversary Endowment.....	54,544.00	\$349,823.02

Interest on Loans to Natural History Magazine..... 642.41

Membership Fees:

Fellows	\$1,000.00	
Life Members.....	2,400.00	
Sustaining Members.....	4,925.00	
Annual Members.....	34,330.00	
Associate Members.....	18,573.00	61,228.00

Sale of Publications..... 4,829.94

Subscriptions to Natural History..... 2,928.52

Natural History Advertising, 1934..... 456.68

Sales and Exchanges..... 11,910.37

Contributions by Trustees for General Purposes:

Anonymous	\$10,000.00	
Childs Frick.....	1,500.00	
J. P. Morgan.....	1,000.00	
John D. Rockefeller, 3rd.....	500.00	
Henry W. Sage.....	2,000.00	
W. K. Vanderbilt.....	500.00	15,500.00

Contributions by Employees for General Purposes..... 72,074.47

Contributions for General Purposes, see listing on page 49.. 14,900.50

Contributions for Special Purposes:

Cleveland H. Dodge Foundation, Inc..... 5,000.00

Total net receipts for the development of all departments..... \$539,293.91

GENERAL ACCOUNT

Disbursements, 1935

Administration and Operation:

Administration	\$57,922.91	
General Supplies and Expenses.....	38,594.75	
Heating and Lighting.....	39,911.49	
Repairs and Installation.....	31,947.29	
Special Repairs.....	1,318.76	
Architects' Services.....	1,378.26	
Legal Services.....	2,084.38	
Pension Fund.....	31,024.00	
Group Life Insurance.....	9,966.63	
Financial Administration.....	51,038.64	
Natural History Magazine Cost.....	36,855.66	
Interest on Bank Loan.....	1,880.11	\$303,922.88

Scientific and Research:

Astronomy	\$6,894.72	
Geology and Invertebrate Palaeontology.....	5,840.00	
Mineralogy	1,104.06	
Mammalogy	8,278.41	
Ornithology	4,037.49	
Vertebrate Palaeontology.....	6,747.23	
Comparative Anatomy.....	5,547.24	
Anthropology	7,220.57	
Ichthyology	3,977.77	
Herpetology	6,659.63	
Experimental Biology.....	4,422.20	
Living Invertebrates.....	4,910.64	
Entomology	9,754.43	
Library	18,045.18	93,439.57

Printing, Books and Publications:

Printing and Publishing.....	36,639.34
------------------------------	-----------

Preparation and Exhibition:

Preparation and Exhibition.....	24,162.77
---------------------------------	-----------

Educational—Public School Work:

Public Education.....	55,265.64
-----------------------	-----------

Total net disbursements for the development of all departments..... \$513,430.20

Reduction of Deficit of 1934..... 9,298.68

Contributions for General Purposes, 1934 (Transferred to Annual Members) 10.00

\$522,738.88

Available Cash Balance, December 31, 1935..... 16,555.03

\$539,293.91

ALLOCATION OF BANK LOAN

Balance, December 31, 1935:

Cash		\$79,300.17
Loans Receivable:		
Sixtieth Anniversary Endowment.....	\$89,729.58	
African Hall Construction.....	45,409.39	
Authorized Deficit of 1931.....	27,115.89	
Natural History Magazine.....	25,000.00	187,254.86

Less: \$266,555.03

Cash Balance Available for 1936..... 16,555.03

Balance, Bank Loan, December 31, 1935..... \$250,000.00

MORRIS K. JESUP FUND ACCOUNT ***Receipts, 1935**

Balance, January 1, 1935

Cash	\$5,150.00
------------	------------

Trustees' Restricted Funds:

Income from Morris K. Jesup Fund.....	\$254,860.01
Sale of Publications.....	2,358.95
Sales and Exchanges.....	12.00

Total net receipts for the development of all departments.....	257,230.96
---	-------------------

\$262,380.96

Disbursements, 1935**Scientific and Research:**

Geology and Invertebrate Palaeontology.....	\$6,929.04	
Mineralogy	5,633.82	
Mammalogy	13,937.41	
Ornithology	24,624.75	
Vertebrate Palaeontology.....	16,875.72	
President Osborn's Science Fund.....	5,097.16	
Comparative Anatomy.....	11,741.23	
Anthropology	20,488.12	
Ichthyology	14,747.64	
Herpetology	4,005.26	
Experimental Biology.....	14,390.06	
Living Invertebrates.....	6,903.35	
Entomology	13,453.04	
Library	7,440.56	\$166,267.16

Printing, Books and Publications:

Printing and Publishing.....	15,697.60
------------------------------	-----------

Preparation and Exhibition:

Preparation and Exhibition.....	\$37,410.90
Living Invertebrates—Preparation.....	14,248.53
Vertebrate Palaeontology—Preparation.....	20,103.77
	71,763.20

Total net disbursements for the development of all departments.....	\$253,727.96
--	---------------------

Balance, December 31, 1935.....	8,653.00
---------------------------------	----------

\$262,380.96

* Disbursements of this account are made as the Board of Trustees may direct, for the purchase of specimens, for the expenses of field parties, and for the support of scientific work.

SPECIAL FUNDS ACCOUNT

Receipts and Disbursements, 1935

	Balance Jan. 1	Receipts	Disbursements	Balance Dec. 31
Astronomy				
Astronomic Fund	\$151.73			
A. Cressy Morrison		\$211.79		
Payments			\$361.79	\$1.73
Hayden Planetarium Fund..	12,964.86			
Charles Hayden		5,369.84		
Payments			18,334.70	
Totals	\$13,116.59	\$5,581.63	\$18,696.49	\$1.73
Geology and Invertebrate Palaeontology				
Meteorite Fund	241.24			
Payments			209.50	31.74
Varve Clay Investigation Fund	36.51			
Payments			20.00	16.51
Totals	\$277.75		\$229.50	\$48.25
Mineralogy				
Matilda W. Bruce Fund	20.62			
Interest		3.64		
Payments			9.14	15.12
J. P. Morgan Fund—Min- eralogy:				
Transferred from Reserve.		900.00		
Payments			900.00	
The Boyce Thompson Mineral Collection Fund	7,575.00			
Interest		2,250.00		9,825.00
The Boyce Thompson Min- eral Collection Installa- tion Fund:				
Interest		969.63		969.63
Wallace Memorial Fund	199.92			
Interest		526.14		
Payments			685.46	40.60
Totals	\$7,795.54	\$4,649.41	\$1,594.60	\$10,850.35
Mammalogy				
Archbold Mammal Fund:				
Richard Archbold		29,656.19		
Payments			29,638.87	17.32
Davison Alberta Expedition Fund:				
Henry P. Davison		200.00		
Payments			200.00	

SPECIAL FUNDS ACCOUNT (Continued)

	Balance Jan. 1	Receipts	Disbursements	Balance Dec. 31
Harriman Idaho Expedition Fund:				
E. Roland Harriman.....		\$547.62		
Payments			\$547.62	
Mammal Fund.....	339.25			
Childs Frick.....		500.00		
Payments			544.43	294.82
Morden Alberta Expedition Fund:				
William J. Morden.....		500.00		
Payments			500.00	
McCloy North American Mammal Fund:				
John J. McCloy.....		100.00		100.00
Nevada Expedition Fund:				
Childs Frick		250.00		
Payments			250.00	
Ottley-Anthony Sudan Expe- dition Fund	1,850.26			
Payments			77.55	1,772.71
Sage West China Expedition Fund:				
Dean Sage, Jr.....		223.10		
Payments			223.10	
Snyder Canadian Expedition Fund	15.00			
Harry Snyder		3,642.26		
Mrs. Harry Snyder.....		1,500.00		
Dorothy Jane Snyder....		1,500.00		
Payments			6,500.43	
	15.00	6,642.26	6,500.43	156.83
Special Canine Fund.....	128.18			128.18
Vernay-Hopwood Chindwin Expedition Fund:				
Arthur S. Vernay.....		642.57		
Payments			642.57	
Totals	\$2,332.69	\$39,261.74	\$39,124.57	\$2,469.86
Asiatic Exploration and Research				
Central Asiatic Expeditions Fund	3,166.00			
Subscriptions, see listing on page 54.....		2,965.00		
Payments			2,566.83	3,564.17
Sale of Publications.....	1,898.97	1,239.73		
Payments			3,010.39	128.31
Totals	\$5,064.97	\$4,204.73	\$5,577.22	\$3,692.48

SPECIAL FUNDS ACCOUNT (Continued)

	Balance Jan. 1	Receipts	Disbursements	Balance Dec. 31
Ornithology				
Alpine Group Fund:				
Mrs. Carl Tucker.....		\$1,000.00		
Payments			\$851.49	\$148.51
Barro Colorado Island Fund:				
Mrs. Carl Tucker.....		300.00		
Payments			300.00	
Bird Photographic Fund:				
Frank M. Chapman.....		32.00		
Payments			13.60	18.40
Templeton Crocker South Sea Cruise Fund.....	15,000.00			
Templeton Crocker		10,000.00		
Payments			25,000.00	
Cutting-Whitney Fund:				
C. Suydam Cutting.....		3,000.00		
Payments			1,859.72	1,140.28
Olalla Fund	225.00			225.00
Ornithological Fund	3.77			
Leonard C. Sanford.....		150.00		
Payments			150.00	3.77
Margaret Olivia Sage Fund..	418.21			
Interest		341.10		
Payments			332.04	427.27
Harry Payne Whitney Me- morial Fund:				
Leonard C. Sanford.....		2,200.00		2,200.00
Whitney-Rothschild Installa- tion Fund:				
Mrs. Gertrude Vanderbilt Whitney		17,350.00		
Payments			10,530.04	6,819.96
Whitney South Sea Expedi- tion Fund	12,228.15			
Payments			2,274.35	9,953.80
Totals	\$27,875.13	\$34,373.10	\$41,311.24	\$20,936.99
Vertebrate Palaeontology				
American Museum-Sinclair Di- nosaur Expedition Fund	32.57			
Refund		587.99		620.56
American Pliocene Fund— Vertebrate Palaeontology	\$4.61			
Childs Frick		\$26,850.00		
Payments			\$23,574.39	\$3,280.22

SPECIAL FUNDS ACCOUNT (Continued)

	Balance Jan. 1	Receipts	Disbursements	Balance Dec. 31
J. P. Morgan Fund—Vertebrate Palaeontology: Transferred from Reserve. Payments		\$22,743.33	\$22,743.33	
Osborn Palaeontologic Research Fund74			
Interest		177.07		
Payments			51.50	126.31
Henry F. Osborn Research and Science Fund for 1934: Henry Fairfield Osborn.. Payments		2,108.20	2,108.20	
Henry F. Osborn Research and Travel Fund Contributions of 1934: Henry Fairfield Osborn.. Payments		3,355.52	3,355.52	
Scarritt Patagonian Expedition Fund	58.44			58.44
Third Scarritt Expedition Fund: Fenley Hunter		350.00		
Horace S. Scarritt		1,800.00		
Payments			2,012.03	
		2,150.00	2,012.03	137.97
Vertebrate Palaeontology Field Fund	1,244.55			
Interest		1,210.11		2,454.66
Vertebrate Palaeontology Preparation Fund	344.44			344.44
Vertebrate Palaeontology Special Fund	122.84			
Interest		49.34		172.18
Totals	\$1,808.19	\$59,231.56	\$53,844.97	\$7,194.78
Comparative Anatomy				
James Arthur Research Fund Interest	1,111.71	1,695.84		
Payments			2,645.17	162.33
Columbia University African Fund: Columbia University		\$1,000.00		\$1,000.00

SPECIAL FUNDS ACCOUNT (Continued)

	Balance Jan. 1	Receipts	Disbursements	Balance Dec. 31
Comparative Anatomy Fund.	\$500.00			
Dr. George Crile.....		\$100.00		
Childs Frick		1,000.00		
Mrs. Marion Brown Shel-				
ton		1,925.00		
Payments			\$2,491.50	
	500.00	3,025.00	2,491.50	1,033.50
Introduction to Anatomy				
Fund	118.52			118.52
Totals	\$1,730.23	\$5,720.84	\$5,136.67	\$2,314.40
Anthropology				
Anthropology Fund	320.00			
Anonymous		500.00		
Payments			507.00	313.00
Anthropology Special Fund..	122.84			
Interest		49.33		
Payments			150.00	22.17
Aztec Calendar Stone Fund:				
Clarence L. Hay.....		300.00		
Payments			300.00	
Keith Collection Fund:				
Clarence L. Hay.....		2,000.00		
Mrs. Shelton Whitehouse.		25.00		
Payments			2,025.00	
		2,025.00	2,025.00	
Middle American Research				
Fund	250.00			
Willard H. Carr.....		2,000.00		
Clarence L. Hay.....		100.00		
Dr. S. K. Lothrop.....		100.00		
Prof. Alfred M. Tozzer...		100.00		
George C. Vaillant.....		50.00		
Payments			2,300.00	
	250.00	2,350.00	2,300.00	300.00
Physical Anthropology Fund.	937.18			
Miss Amelia Elizabeth				
White		150.00		
Interest		473.12		
Payments			707.95	
	937.18	623.12	707.95	852.35
Physical Anthropology of				
Quebec Fund	\$140.00			\$140.00

SPECIAL FUNDS ACCOUNT (Continued)

	Balance Jan. 1	Receipts	Disbursements	Balance Dec. 31
South Pacific Exploration Fund:				
Anonymous		\$2,000.00		
Payments			\$605.00	\$1,395.00
Frederick G. Voss Anthropol- ogy and Archaeology Fund	1,640.82	13,907.04	13,809.54	1,738.32
Interest				
Payments				
Totals	\$3,410.84	\$21,754.49	\$20,404.49	\$4,760.84
Ichthyology				
Bashford Dean Ichthyological Library Fund	65.19			
Interest		202.33		
Sales		28.35		
Payments			197.89	
Totals	65.19	230.68	197.89	97.98
Morden Caranx Fund:				
William J. Morden		6,300.00		
Payments			6,300.00	
Purchase of Fish Specimens Fund	212.25	25.00		
Mead Johnson & Co.			98.00	139.25
Payments				
Whale Shark Fund:				
Charles T. Wilson		500.00		
Payments			249.19	250.81
Totals	\$277.44	\$7,055.68	\$6,845.08	\$488.04
Herpetology				
Fletcher Field Fund:				
Dr. J. Warren Bell		400.00		
Melville P. Cummin		425.00		
André de Coppet		275.31		
Maud Lewis Fletcher		400.00		
Mrs. Ethel G. Hassler		260.00		
Daniel C. Pease		100.00		
Payments			1,635.35	
Totals		\$1,800.31	\$1,635.35	\$164.96
Experimental Biology				
Josiah Macy, Jr. Foundation Fund:				
Josiah Macy, Jr. Founda- tion		\$4,500.00		
Payments			\$892.66	\$3,607.34

SPECIAL FUNDS ACCOUNT (Continued)

	Balance Jan. 1	Receipts	Disbursements	Balance Dec. 31
National Research Council				
Fund:				
National Research Council				
—Division of Medical				
Sciences		\$300.00		
Payments			\$300.00	
Totals		\$4,800.00	\$1,192.66	\$3,607.34
Entomology				
Entomological Fund	\$1,268.09			
Cyril F. dos Passos.....		100.00		
E. Irving Huntington.....		230.63		
William Proctor		500.00		
Emilie E. Schwarz.....		100.00		
Herbert F. Schwarz.....		100.00		
Ida T. L. Schwarz.....		100.00		
Payments			551.25	
	1,268.09	1,130.63	551.25	1,847.47
Lepidoptera Fund:				
Frederick F. Brewster.....		100.00		
Chauncey J. Hamlin.....		100.00		
Henry W. Sage.....		100.00		
Leonard C. Sanford.....		100.00		
William C. Wood.....		500.00		
Payments			170.30	
		900.00	170.30	729.70
Totals	\$1,268.09	\$2,030.63	\$721.55	\$2,577.17
Library				
Anson W. Hard Library Fund:				
Interest		211.33		
Payments			211.33	
Purchase of Books Fund:				
Fred E. Church.....		22.00		22.00
Ralph Winfred Tower Memo-				
rial Fund:				
Interest		1,068.14		
Payments			1,068.14	
Totals		\$1,301.47	\$1,279.47	\$22.00
Printing and Publishing				
Anthropological Handbook				
Fund	\$2,525.08			
Sales		\$962.16		
Payments			\$1,473.84	\$2,013.40
Brewster-Sanford Publication				
Fund	830.04			
Frederick F. Brewster.....		7,000.00		
Payments			2,815.17	5,014.87

SPECIAL FUNDS ACCOUNT (Continued)

	Balance Jan. 1	Receipts	Disbursements	Balance Dec. 31
Mammal Publications Fund..	\$325.23			
Payments			\$113.99	\$211.24
J. P. Morgan Fund—Printing and Publishing:				
Transferred from Reserve..		549.70		
Payments			549.70	
Naumburg Publication Fund:				
Mrs. Elsie M. B. Naumburg		814.00		
Payments			364.00	450.00
Publication Fund:				
Henry Fairfield Osborn....		2,075.00		
Mrs. James Sullivan.....		10.00		
Payments			2,085.00	
		2,085.00	2,085.00	
Totals	\$3,680.35	\$11,410.86	\$7,401.70	\$7,689.51
Public Education				
Bear Mountain Trailside Mu- seum Fund:				
Commissioners of Palisades Interstate Park Commis- sion		343.45		
Payments			292.31	51.14
Carnegie Corporation of New York Fund.....	2,757.47			
Payments			492.29	2,265.18
Educational Lecture Fund:				
Alma B. Cassoff.....		1.25		
Tuition Fees.....		272.25		
Payments			273.50	
		273.50	273.50	
Laboratory School Fund.....	93.00			
Lecture Fees.....		78.00		
Payments			82.21	88.79
Nature Trails Fund.....	38.50			
Payments			\$1.64	\$36.86
Pupil Parent Fund.....	164.46			
Childs Frick.....		\$1,333.34		
Payments			1,313.36	184.44
School Fund.....	168.92			
Subscription		10.00		
Guiding Fees.....		39.00		
Payments			28.90	
	168.92	49.00	28.90	189.02

SPECIAL FUNDS ACCOUNT (Continued)

	Balance Jan. 1	Receipts	Disbursements	Balance Dec. 31
Special Education Fund.....	\$5,280.75			
Felix M. Warburg.....		\$5,000.00		
Frederick M. Warburg....		1,000.00		
Payments			\$6,107.96	
	<u>5,280.75</u>	<u>6,000.00</u>	<u>6,107.96</u>	<u>5,172.79</u>
Jonathan Thorne Memorial Fund	1,670.16			
Interest		1,172.00		
Payments			721.77	2,120.39
Totals	<u>\$10,173.26</u>	<u>\$9,249.29</u>	<u>\$9,313.94</u>	<u>\$10,108.61</u>
Preparation and Exhibition				
African Elephant Preparation Fund:				
Mrs. Henry P. Davison...		6,000.00		
Robert W. Johnson.....		6,000.00		
Payments			11,855.03	
		<u>12,000.00</u>	<u>11,855.03</u>	<u>144.97</u>
African Hall Group Fund...	43,824.05			
Daniel E. Pomeroy.....		5,500.00		
Sale of Securities.....		18,781.58		
Interest		487.50		
Payments			34,969.90	
	<u>43,824.05</u>	<u>24,769.08</u>	<u>34,969.90</u>	<u>33,623.23</u>
Blue Marlin Group Fund....	1,000.00			1,000.00
Campbell African Expedition Fund:				
William D. Campbell.....		1,055.00		
Payments			1,055.00	
Davison India Expedition Fund:				
F. Trubee Davison.....		2,000.00		
Payments			1,995.29	4.71
Giant Panda Group Fund:				
Dean Sage.....		2,000.00		2,000.00
Okapi Group Fund:				
William D. Campbell.....		1,000.00		
Payments			133.43	866.57
Wild Dog Group Fund:				
Max C. Fleischmann.....		5,000.00		
Payments			186.69	4,813.31
Totals	<u>\$44,824.05</u>	<u>\$47,824.08</u>	<u>\$50,195.34</u>	<u>\$42,452.79</u>

SPECIAL FUNDS ACCOUNT (Continued)

	Balance Jan. 1	Receipts	Disbursements	Balance Dec. 31
Administration				
Administration Fund:				
F. Trubee Davison.....		\$4,802.37		
Payments			\$4,802.37	
Totals		\$4,802.37	\$4,802.37	
Balance, January 1, 1935.....	\$123,635.12			
Total net receipts for the de- velopment of specific de- partments		\$265,052.19		
Total net disbursements for the development of specific departments			\$269,307.21	
Balance, December 31, 1935..				\$119,380.10
J. P. Morgan Fund Reserve....	945.92			
Interest		23,247.11		
Transferred to				
Vertebrate Palaeontology..			22,743.33	
Printing and Publishing...			549.70	
Mineralogy			900.00	
	945.92	23,247.11	24,193.03	
Totals	\$124,581.04	\$288,299.30	\$293,500.24	\$119,380.10

SPECIAL FUNDS ACCOUNT—1935

SUMMARY

	Balance Jan. 1	Receipts	Disbursements	Balance Dec. 31
Astronomy	\$13,116.59	\$5,581.63	\$18,696.49	\$1.73
Geology and Invertebrate Palaeontology	277.75		229.50	48.25
Mineralogy	7,795.54	4,649.41	1,594.60	10,850.35
Mammalogy	2,332.69	39,261.74	39,124.57	2,469.86
Asiatic Exploration and Re- search	5,064.97	4,204.73	5,577.22	3,692.48
Ornithology	27,875.13	34,373.10	41,311.24	20,936.99
Vertebrate Palaeontology.....	1,808.19	59,231.56	53,844.97	7,194.78
Comparative Anatomy.....	1,730.23	5,720.84	5,136.67	2,314.40
Anthropology	3,410.84	21,754.49	20,404.49	4,760.84
Ichthyology	277.44	7,055.68	6,845.08	488.04
Herpetology		1,800.31	1,635.35	164.96
Experimental Biology.....		4,800.00	1,192.66	3,607.34
Entomology	1,268.09	2,030.63	721.55	2,577.17
Library		1,301.47	1,279.47	22.00
Printing and Publishing.....	3,680.35	11,410.86	7,401.70	7,689.51
Public Education.....	10,173.26	9,249.29	9,313.94	10,108.61
Preparation and Exhibition....	44,824.05	47,824.08	50,195.34	42,452.79
Administration		4,802.37	4,802.37	
Total—Before Reserve.....	\$123,635.12	\$265,052.19	\$269,307.21	\$119,380.10
J. P. Morgan Fund Reserve....	945.92	23,247.11	24,193.03	
Totals	\$124,581.04	\$288,299.30	\$293,500.24	\$119,380.10

THE AMERICAN MUSEUM OF NATURAL HISTORY
CORPORATE STOCK ACCOUNT

1935

Receipts:

Department of Parks, City of New York:	
C. D. P. 122 A.....	\$48,417.25
N. D. P. 3-12.....	4,938.50
	<u>\$53,355.75</u>

Disbursements:

Payroll of Mechanics, etc.....	<u>\$53,355.75</u>
--------------------------------	--------------------

INCIDENTAL ACCOUNT

1935

Balance, January 1, 1935.....	\$7,467.08
-------------------------------	------------

Receipts:

Individuals and Societies.....		9,936.65
Group Life Insurance:		
Employees' Premium Payments.....	\$9,978.84	
Loans	4,820.04	14,798.88
		<u>\$32,202.61</u>

Disbursements:

Individuals and Societies.....		\$13,815.50
Group Life Insurance:		
Premiums	\$9,733.69	
Loan Instalments.....	5,065.19	14,798.88
		<u>3,588.23</u>
Balance, December 31, 1935.....		<u>\$32,202.61</u>

All the foregoing accounts have been

Examined and	{ OGDEN L. MILLS CORNELIUS V. WHITNEY } H. RIVINGTON PYNE	Auditing Committee.
Approved		

E. and O. E.

NEW YORK, December 31, 1935.

E. ROLAND HARRIMAN, *Treasurer.*

ADAMS, COBB & BECKER

Certified Public Accountants

110 East 42nd Street

New York

THE AMERICAN MUSEUM OF NATURAL HISTORY

CERTIFICATE OF AUDITORS

We have audited the cash transactions of The American Museum of Natural History for the year ended December 31, 1935.

According to the usual custom, certain collections to and including January 22, 1936 have been treated as of December 31, 1935, in order to obtain the benefit for the period then ended, of revenue earned during said period, but which became due and payable on January 2, 1936.

WE HEREBY CERTIFY, that in our opinion, subject to the foregoing comment, the receipts and disbursements for the year then ended were properly accounted for and correctly stated upon the records.

(Signed) ADAMS, COBB & BECKER

Certified Public Accountants.

New York, February 24, 1936

TREASURER'S REPORT
OF THE
PENSION FUND
OF
THE AMERICAN MUSEUM OF NATURAL HISTORY
FOR THE YEAR 1935

INVESTED FUNDS

SUMMARY

	Par Value	Book Value
Investment Fund.....	\$854,691.63	\$840,839.61
Endowment Fund.....	1,258.37	1,140.39
	<hr/>	<hr/>
	\$855,950.00	\$841,980.00
	<hr/>	<hr/>

PENSION FUND ACCOUNT

Receipts, 1935

Balance, January 1, 1935.....			\$34,659.99
Contributions by Subscribing Employees:			
Deductions of 3% from Payrolls of All Ac-			
counts	\$29,638.88		
Personal Payments by Subscribing Employees..	1,487.47		
Interest on Deferred Contributions.....	402.24	\$31,528.59	
Contributions by Board of Trustees:			
To equal Contributions by Subscribing Em-			
ployees	\$31,024.01		
Contributions by Natural History Magazine:			
To equal Contributions by Subscribing Em-			
ployees	377.03		
Contributions by Planetarium Authority:			
To equal Contributions by Subscribing Em-			
ployees	127.55	31,528.59	63,057.18
Income from Investment Fund.....		39,309.04	
Income from Endowment Fund.....		50.34	39,359.38
Investment Fund:			
Sale of Securities.....			173,808.61
Suspense Account.....			330.00
			<u>\$311,215.16</u>

Examined and	{	FREDERICK H. OSBORN	}	Auditing Committee
Approved		GEORGE T. BOWDOIN		
		JACOB W. SHROPE		

PENSION FUND ACCOUNT

Disbursements, 1935

Payments to Subscribers and Beneficiaries:

Return of Contributions.....	\$12,327.81	
Interest on Contributions Returned.....	1,327.06	\$13,654.87
Service Pensions "A".....	\$16,078.32	
Service Pensions "B".....	1,554.00	
Service Pensions "C".....	16,501.18	
Pension in Event of Illness, Dismissal, etc....	3,816.95	
Widows' Pensions, Section 13 SD 2-A.....	818.64	38,769.09

Death Gratuities:

Section 13			
Sub-Div. 1-B.....	\$4,910.08		
Sub-Div. 2-A.....	816.22		
Sub-Div. 2-A and 2-B.....	846.75	6,573.05	\$58,997.01

Expenses 406.31

Investment Fund:

Purchase of Securities..... 167,147.50

Balance, December 31, 1935:

On Deposit:	
National City Bank of New York, Seventy-ninth Street Branch.....	84,664.34
	<u>\$311,215.16</u>

E. & O. E.

NEW YORK, December 31, 1935

E. ROLAND HARRIMAN, *Treasurer.*

PENSION FUND—SPECIAL FUNDS ACCOUNT

Receipts, 1935

Welfare Fund:

Balance, January 1, 1935.....		\$1,000.30
Refunds from Secretary and Individuals.....	\$377.75	
Interest on Loans.....	7.00	384.75
		<u>\$1,385.05</u>

Examined and
Approved

{	FREDERICK H. OSBORN	}
	GEORGE T. BOWDOIN	
	JACOB W. SHROPE	

Auditing Committee

PENSION FUND—SPECIAL FUNDS ACCOUNT

Disbursements, 1935

Welfare Fund:

Assistance and Relief.....	\$965.00
----------------------------	----------

Balance, December 31, 1935 :

On Deposit:

National City Bank of New York, Seventy-ninth Street Branch.....	420.05
--	--------

<u>\$1,385.05</u>

E. & O. E.

NEW YORK, December 31, 1935

E. ROLAND HARRIMAN, *Treasurer.*

ADAMS, COBB & BECKER

Certified Public Accountants

110 East 42nd Street

New York

THE AMERICAN MUSEUM OF NATURAL HISTORY
PENSION FUND

CERTIFICATE OF AUDITORS

We have audited the cash transactions of the Pension Fund of The American Museum of Natural History for the year ended December 31, 1935.

According to the usual custom, certain collections to and including January 7, 1936 have been treated as of December 31, 1935, in order to obtain the benefit for the period then ended, of revenue earned during said period, but which became due and payable on January 2, 1936.

WE HEREBY CERTIFY, that in our opinion, subject to the foregoing comment, the receipts and disbursements for the year then ended were properly accounted for and correctly stated upon the records.

(Signed) ADAMS, COBB & BECKER

Certified Public Accountants.

New York, February 17, 1936.

V. MEMBERSHIP AND PERSONNEL

CLARENCE L. HAY, Secretary

WAYNE M. FAUNCE, Executive Secretary

In 1935, special efforts were made to increase our membership and 8,852 persons were added to our list, a number surpassing by several thousands the increase for any previous year. The loss by death and resignation was 1,905, leaving a net gain of 6,947.

The increase in work following the great increase in the number of Members has been well taken care of by Mr. Charles J. O'Connor, who was appointed Membership Supervisor, beginning June 1.

The number of Members on December 31, 1935, was 18,909, classified as follows:

Endowment Members.....	10	Fellows	100
Benefactors	23	Honorary Life Members.....	80
Associate Founders.....	25	Life Members.....	1,079
Associate Benefactors.....	52	Corresponding Members.....	22
Patrons	215	Sustaining Members.....	193
Honorary Fellows.....	17	Annual Members.....	3,343
Associate Members.....		13,750	

• Many Members have responded generously to an appeal for contributions toward the balancing of the Museum's budget. A number of persons have increased their fees by raising their membership status.

The Members' Lectures, conducted during the year in two courses, four lectures in the spring course and four in the autumn course, were given to large audiences. A similar number in like arrangement were given for the Children of Members, as for many years past, and parents and children alike regard them as supplementary to regular school work.

Two courses of lectures were given to Members in the Know Your Museum Series: four lectures by Mr. H. P. Whitlock on Jade and the Drummond Collection, and a series of lectures on Prehistoric Life given by Dr. Barnum Brown, Dr. G. G. Simpson and Dr. Edwin H. Colbert.

The Seventh Annual Members' Visiting Day was held on June 6 in Education Hall, attended by the largest number of Members and guests ever assembled on these occasions, approximately 1,300. Groups were formed, and a tour of the points of interest in the Museum was made under the supervision of guides, special features

of interest being the Hayden Planetarium, then nearing completion, the Akeley Memorial African Hall, the studios and laboratories of the Department of Preparation, and the Whitney Hall of Birds. Refreshments were served, and music was rendered by the Municipal Chamber Symphony Orchestra.

The membership department staff, in addition to the large amount of work in connection with the care of the membership records, were called upon for much work in connection with the opening of the Hayden Planetarium, and many other tasks not directly related to the routine work.

THE BOARD OF TRUSTEES

At the Annual Meeting of January 7, 1935, the following officers were re-elected: President, F. Trubee Davison; First Vice-President, J. P. Morgan; Second Vice-President, Cleveland E. Dodge; Treasurer, E. Roland Harriman; Secretary, Clarence L. Hay. Also at the Annual Meeting, the Trustees whose terms expired at that time were re-elected to the Class of 1939; Chauncey J. Hamlin, Suydam Cutting, Frederick H. Osborn, Henry Fairfield Osborn, George D. Pratt, and A. Hamilton Rice.

At the meeting of the Trustees held November 12, 1935, Mr. Arthur S. Vernay was elected to fill the vacancy due to the death of Mr. George D. Pratt, which occurred on January 20, 1935, as mentioned in the Report for 1934.

Ex-officio members of the Trustees are the Mayor, the Comptroller and the Commissioner of Parks.

The Trustees learned with great regret of the passing away on November 6 of Professor Henry Fairfield Osborn, Honorary President and Trustee, who had devoted many years to the American Museum of Natural History. At their meeting of November 12, the Trustees passed a resolution in recognition of and appreciation for the long and eminent service of Professor Osborn to the American Museum and to science. Their resolution is given on page 1.

THE ADMINISTRATIVE AND SCIENTIFIC STAFFS

As explained in another part of this report, page 4, a reorganization of the Administrative and Scientific Staffs took place in 1935, in the course of which several of our employees were retired on pension, and in several instances new appointments were made to take care of the new work incident to the increase in the building.

At the Annual Meeting of January 7, 1935, Dr. George H. Sherwood retired as Director, because of ill health. A resolution in appreciation of his long and efficient service was adopted by the Trustees and was published in the Annual Report a year ago. Doctor Sherwood was appointed Honorary Director and was continued as Curator of the Department of Education.

Dr. Roy Chapman Andrews, Vice-Director, who had served as Acting Director since March 1, 1934, was appointed Director, at the Annual Meeting of January 7, 1935.

Mr. Wayne M. Faunce, Assistant Executive Secretary and Assistant Director (General Administration), was appointed Vice-Director and Executive Secretary, at the same meeting.

The administrative position of Vice-Director (Preparation and Exhibition) was abolished, and Dr. James L. Clark, who had ably filled this post, was appointed Director in the Department of Arts, Preparation and Installation in June.

The position of Assistant Treasurer was abolished.

The office of Registrar was also abolished, and Mr. George N. Pindar, who had for many years efficiently performed the duties devolving upon him in this position, was retired on June 15, carrying with him the esteem of the entire staff and personnel of the Museum.

The abolition of the office of Registrar necessarily involved that of the Assistant Registrar. Miss Ethel L. Newman, who occupied this position, has been re-engaged in other work.

On June 15, Mr. Henry J. Langham, Chief Engineer, and Mr. Harry F. Beers, Chief of Construction, who had long and efficiently served the Museum in their respective offices, were retired on pension. Mr. J. B. Foulke, for many years Superintendent of Buildings, was also retired from this office, but upon his request was given the position of Custodian.

Mr. Charles J. O'Connor was appointed Membership Supervisor, the appointment dating from June 1.

Mr. Rex P. Johnson was appointed General Superintendent on June 17.

Mr. Charles C. Groff was appointed Mechanical Superintendent and Mr. Charles E. Banks was appointed Power Plant Engineer on June 17.

Mr. Richard H. Cooke was appointed Business Manager of the Hayden Planetarium on October 17.

The Scientific Staff sustained a great loss in the passing away of Henry Fairfield Osborn, D.Sc., LL.D., Honorary Curator of the Department of Vertebrate Palaeontology. At a meeting of the Staff on November 7, the following resolution was presented by Doctor Chapman:

Resolved, That we, fellow-workers of Henry Fairfield Osborn in The American Museum of Natural History, express our sorrow in the death of an associate who had been with us for forty-four years, and pay our tribute to his memory as scientist and administrator.

As an investigator he held a place of first rank: of explorers in the field, among workers in the laboratory, and as a student of the writings of others.

As a teacher he was an inspiration in the classroom and lecture hall and through the written word.

As a curator he introduced methods of exhibition which, in their power to attract attention and convey information, have made the halls under his control models of museum technique.

As a President under whose administration our Museum has attained a leading place among the museums of the world, he was never influenced by the expediency of the present but advocated only those standards which would meet the tests of all time.

As a man of the highest ideals, exceptional culture, and wide outlook, he ever saw the results of his own researches in their relation to civilization, and regarded the museum as an educational force of supreme importance in acquainting mankind with the nature of his environment.

The resolution was adopted by a rising vote of all those present.

At the Annual Meeting of the Trustees on January 7, 1935, the following appointments were made:

E. W. Gudger, Ph.D., Bibliographer and Associate in the Department of Living and Extinct Fishes, and Francesca R. LaMonte, B.A., Assistant Curator in the Department, were appointed Associate Curators.

The title of John T. Zimmer, M.A., was changed from Associate Curator of Birds of the Western Hemisphere to Acting Curator in the Department of Ornithology.

The title of Marcelle Roigneau was changed from Staff Assistant in Comparative Anatomy to Assistant Curator in the Department of Comparative and Human Anatomy. The resignation of Miss Roigneau from the Staff on June 15 was accepted with regret.

Miss Bella Weitzner was appointed Assistant Curator of Anthropology.

Miss Hazel Gay, Acting Curator in the Department of Library and Publications, was appointed Librarian, and Miss Helen Gunz was appointed Assistant Librarian.

Miss Georgine Mastin was appointed Staff Assistant in the Department of Education.

Mr. Charles E. O'Brien was appointed Assistant Curator in the Department of Ornithology.

On February 21, appointments were made as follows:

The title of Robert Cushman Murphy, D.Sc., was changed from Curator of Oceanic Birds to Associate Curator, Marine Ornithology, to take effect July 1.

The title of James P. Chapin, Ph.D., Associate Curator of Birds of the Eastern Hemisphere, was changed to Associate Curator, Continental Old World Birds.

The title of Ernst Mayr, Ph.D., was changed from Associate Curator of Birds to Associate Curator, Whitney-Rothschild Collections.

Mr. Tom Davin was appointed Manager of Publications and Printing.

Mrs. Gladys L. Pratt was appointed an Associate in Education

Roswell Miller, Jr., C.E., was appointed Field Associate in the Department of Living Invertebrates on March 21.

On April 18 the following changes were made:

Mr. Hawthorne Daniel, Curator, Department of Printing and Publishing, and Editor of *Natural History*, resigned from the Museum.

Edward Moffat Weyer, Jr., Ph.D., was appointed Editor of *Natural History*.

The title of Dr. E. W. Gudger was changed from Associate Curator to Bibliographer and Associate Curator in the Department of Ichthyology.

The appointment of Assistant Curator on the Staff of Herpetology was not renewed after April 30, but Mr. Clifford H. Pope, who had made important contributions to science while in that position, is doing special work in the Department of Fishes.

In the Department of Preparation and Exhibition, the name was changed in June to Arts, Preparation and Installation, and James L. Clark, D.Sc., whose title was Vice-Director (in Charge), was appointed Director in this Department.

Robert T. Hatt, Ph.D., Assistant Curator in the Department of Mammalogy, resigned from the Staff on July 25.

On October 17, the following appointments were made:

Chester A. Reeds, Ph.D., was appointed Research Associate in Meteorites in the Department of Astronomy and the Hayden Planetarium.

William H. Barton, Jr., M.S., was appointed Associate Curator in the Department of Astronomy and the Hayden Planetarium, and Dorothy A. Bennett, A.B., formerly Assistant Curator in the Department of Education, Miss Marian Lockwood and Mr. Arthur L. Draper were appointed Assistant Curators.

E. Grace White, Ph.D., was appointed Research Associate in Ichthyology.

On November 12, the following titles for members of the Scientific Staff of the Department of Ornithology were approved:

Frank M. Chapman, Sc.D., Curator; John T. Zimmer, M.A., Executive Curator; Robert Cushman Murphy, D.Sc., Associate Curator of Oceanic Birds; James P. Chapin, Ph.D., Associate Curator of Continental Old World Birds; Ernst Mayr, Ph.D., Associate Curator of the Whitney-Rothschild Collections; Charles E. O'Brien, Assistant Curator; Elsie M. B. Naumburg, Research Associate; Albert R. Brand, Associate in Ornithology.

J. E. Hill, Ph.D., was appointed Assistant Curator in the Department of Mammalogy on December 2, 1935.

On April 18, 1935, President Davison announced that the organization of the Council of Heads of the Scientific Departments had been accomplished and that the Council had elected Dr. Clark Wissler Dean of the Scientific Staff, also that Dr. H. E. Anthony had been elected Secretary of the Council of Heads of the Scientific Departments. These elections were for the current year.

The title Curator-in-Chief, for some years used in certain departments, having been abolished, the title Curator has been given to those holding the former title, as follows: William K. Gregory, Ph.D., in the Department of Living and Extinct Fishes; Frank M. Chapman, Sc.D., in the Department of Ornithology; Clark Wissler, Ph.D., LL.D., in the Department of Anthropology; Roy Chapman Andrews, Sc.D., in the Department of Asiatic Exploration and Research; and George H. Sherwood, Ed.D., in the Department of Education.

Owing to the fact that some of the Research Associates were not able to give active attention to the work of the Museum, their names were omitted from the Staff list, as follows: Bertram G. Smith, Ph.D., and S. W. Handford, A.B., Research Associates in Experimental Biology, and Ronald L. Olson, Ph.D., Research Associate in Peruvian Archaeology.

VI. APPENDIX
ADMINISTRATION OF THE YEAR 1935

BOARD OF TRUSTEES

President*

F. TRUBEE DAVISON

First Vice-President

J. P. MORGAN

Treasurer

E. ROLAND HARRIMAN

Second Vice-President

CLEVELAND E. DODGE

Secretary

CLARENCE L. HAY

ELECTIVE TRUSTEES

Class of 1935

GEORGE T. BOWDOIN

CORNELIUS V. WHITNEY

J. P. MORGAN

DANIEL E. POMEROY

HENRY W. SAGE

H. RIVINGTON PYNE

Class of 1936

DOUGLAS BURDEN

CLEVELAND E. DODGE

CHILDS FRICK

E. ROLAND HARRIMAN

JOHN D. ROCKEFELLER, 3rd

LEONARD C. SANFORD

Class of 1937

F. TRUBEE DAVISON

LINCOLN ELLSWORTH

MADISON GRANT

CLARENCE L. HAY

OGDEN L. MILLS

WILLIAM K. VANDERBILT

Class of 1938

GEORGE F. BAKER

ARCHER M. HUNTINGTON

JUNIUS S. MORGAN

A. PERRY OSBORN

KERMIT ROOSEVELT

FREDERICK M. WARBURG

Class of 1939

CHAUNCEY J. HAMLIN

SUYDAM CUTTING

FREDERICK H. OSBORN

ARTHUR S. VERNAY

A. HAMILTON RICE

EX-OFFICIO TRUSTEES

FIORELLO H. LA GUARDIA

(MAYOR OF THE CITY OF NEW YORK)

FRANK J. TAYLOR

(COMPTROLLER OF THE CITY OF NEW YORK)

ROBERT MOSES

(COMMISSIONER OF PARKS OF THE CITY OF NEW YORK)

*The President is *ex-officio* a member of all Committees.

STANDING COMMITTEES OF THE TRUSTEES

Executive Committee

CLEVELAND E. DODGE,
Chairman
F. TRUBEE DAVISON
E. ROLAND HARRIMAN
CLARENCE L. HAY
GEORGE T. BOWDOIN
CHILDS FRICK
JUNIUS S. MORGAN
DANIEL E. POMEROY
OGDEN L. MILLS
KERMIT ROOSEVELT
A. PERRY OSBORN

Finance Committee

E. ROLAND HARRIMAN,
Chairman
GEORGE F. BAKER
FREDERICK M. WARBURG
A. PERRY OSBORN
JUNIUS S. MORGAN
FREDERICK H. SMYTH, *Bursar*

Auditing Committee

OGDEN L. MILLS, *Chairman*
CORNELIUS V. WHITNEY
H. RIVINGTON PYNE

Nominating Committee

MADISON GRANT, *Chairman*
GEORGE F. BAKER
DOUGLAS BURDEN

Pension Board

Trustee and Employee Members

FREDERICK M. WARBURG,	A. PERRY OSBORN
<i>Chairman</i>	FREDERICK H. SMYTH
FREDERICK H. OSBORN	JACOB W. SHROPE
GEORGE T. BOWDOIN	H. E. ANTHONY, <i>Secretary</i>

Counsel to the Board of Trustees

LEWIS L. DELAFIELD

GENERAL DEPARTMENTAL COMMITTEE OF THE TRUSTEES

F. TRUBEE DAVISON, <i>Chairman</i>	JUNIUS S. MORGAN
GEORGE T. BOWDOIN	A. HAMILTON RICE
DOUGLAS BURDEN	JOHN D. ROCKEFELLER, 3rd
CLEVELAND E. DODGE	KERMIT ROOSEVELT
CHILDS FRICK	LEONARD C. SANFORD
CLARENCE L. HAY	FREDERICK M. WARBURG

SPECIAL COMMITTEES OF THE TRUSTEES

Astronomy and Planetarium

A. CRESSY MORRISON, <i>Chairman</i>	SAMUEL ALFRED MITCHELL
H. RIVINGTON PYNE	WILLIAM A. CHADBOURNE
CHARLES J. LIEBMAN	JOHN M. MOREHEAD
O. H. CALDWELL	JOHN I. DOWNEY
JOHN A. KINGSBURY	DUNCAN H. READ
HENRY NORRIS RUSSELL	WALLACE W. ATWOOD
GEORGE ELLERY HALE	CLYDE FISHER, <i>Curator</i>
HARLOW SHAPLEY	

African Hall and African Collections

DANIEL E. POMEROY, <i>Chairman</i>	HENRY W. SAGE
A. PERRY OSBORN	H. E. ANTHONY, <i>Curator</i>
KERMIT ROOSEVELT	JAMES L. CLARK, <i>Preparation</i>

North American Mammals

MADISON GRANT, <i>Chairman</i>	KERMIT ROOSEVELT
CHILDS FRICK	JOHN D. ROCKEFELLER, 3rd
DOUGLAS BURDEN	H. E. ANTHONY, <i>Curator</i>

Rothschild Collection

LEONARD C. SANFORD, <i>Chairman</i>	FRANK M. CHAPMAN, <i>Curator</i>
MRS. GERTRUDE VANDERBILT	ROBERT CUSHMAN MURPHY
WHITNEY	ERNST MAYR
LORD ROTHSCHILD	ROY CHAPMAN ANDREWS,
	<i>Director</i>

Whitney Wing

LEONARD C. SANFORD, <i>Chairman</i>	FRANK M. CHAPMAN, <i>Curator</i>
MRS. GERTRUDE VANDERBILT	ROBERT CUSHMAN MURPHY
WHITNEY	ROY CHAPMAN ANDREWS,
	<i>Director</i>

Natural History and Membership

FREDERICK M. WARBURG,	ROBERT JOHNSON
<i>Chairman</i>	ARTHUR PAGE
CLARENCE L. HAY	CASS CANFIELD
FREDERICK H. OSBORN	TOM DAVIN
	F. D. DUKE

ADMINISTRATIVE AND SCIENTIFIC STAFFS FOR 1935

OFFICERS OF ADMINISTRATION

Honorary Director

GEORGE H. SHERWOOD

Director

ROY CHAPMAN ANDREWS

Vice-Director and Executive Secretary

WAYNE M. FAUNCE

Bursar

FREDERICK H. SMYTH

Assistant Bursar

FRANCIS BUSHELL

General Superintendent

REX P. JOHNSON

Mechanical Superintendent

CHARLES C. GROFF

Power Plant Engineer

CHARLES E. BANKS

Custodian

J. B. FOULKE

Membership Supervisor

CHARLES J. O'CONNOR

Business Manager of the Hayden Planetarium

RICHARD H. COOKE

Assistant to the President

HANS CHRISTIAN ADAMSON

ADMINISTRATIVE COMMITTEES

Safety

REX P. JOHNSON, *Chairman*

J. B. FOULKE

CHARLES E. BANKS

LOUIS W. KINZER, *Inspector*

JOHN M. McDERMOTT, *Inspector*

CHARLES C. GROFF

Welfare of Employees

H. E. ANTHONY, *Chairman*

FREDERICK H. OSBORN

FREDERICK M. WARBURG

SCIENTIFIC STAFF

ROY CHAPMAN ANDREWS, Sc.D., Director

WAYNE M. FAUNCE, Sc.B., Vice-Director and Executive Secretary

CLARK WISSLER, Ph.D., LL.D., Dean of the Scientific Staff

H. E. ANTHONY, D.Sc., Secretary of the Council of Heads of the
Scientific Departments

ASTRONOMY AND THE HAYDEN PLANETARIUM

CLYDE FISHER, Ph.D., LL.D., Curator

WILLIAM H. BARTON, Jr., M.S., Associate Curator

DOROTHY A. BENNETT, A.B., Assistant Curator

MARIAN LOCKWOOD, Assistant Curator

ARTHUR DRAPER, Assistant Curator

HUGH S. RICE, B.S., Associate in Astronomy

CHESTER A. REEDS, Ph.D., Research Associate in Meteorites*

MINERALOGY

HERBERT P. WHITLOCK, Curator

VERTEBRATE PALAEONTOLOGY

CHILDS FRICK, B.S., Honorary Curator of Late Tertiary and
Quaternary Mammals

WALTER GRANGER, D.Sc., Curator of Fossil Mammals

BARNUM BROWN, Sc.D., Curator of Fossil Reptiles

GEORGE GAYLORD SIMPSON, Ph.D., Associate Curator of Vertebrate
Palæontology

CHARLES C. MOOK, Ph.D., Associate Curator of Geology and
Palæontology

*Research Associates are honorary appointments.

VERTEBRATE PALAEONTOLOGY (Continued)

EDWIN H. COLBERT, Ph.D., Assistant Curator of Vertebrate Palaeontology

RACHEL HUSBAND NICHOLS, A.M., Staff Assistant

WALTER W. HOLMES, Field Associate in Palaeontology

GEOLOGY AND INVERTEBRATE PALAEONTOLOGY

CHESTER A. REEDS, Ph.D., Curator

LIVING INVERTEBRATES

ROY WALDO MINER, Ph.D., Sc.D., Curator

WILLARD G. VAN NAME, Ph.D., Associate Curator

FRANK J. MYERS, Research Associate in Rotifera

HORACE W. STUNKARD, Ph.D., Research Associate in Parasitology

A. L. TREADWELL, Ph.D., Research Associate in Annulata

ROSWELL MILLER, Jr., C.E., Field Associate

ENTOMOLOGY

FRANK E. LUTZ, Ph.D., Curator

A. J. MUTCHLER, Associate Curator of Coleoptera

C. H. CURRAN, D.Sc., Assistant Curator

WILLIS J. GERTSCH, Ph.D., Assistant Curator

FRANK E. WATSON, B.S., Staff Assistant in Lepidoptera

WILLIAM M. WHEELER, Ph.D., LL.D., Research Associate in Social Insects

CHARLES W. LENG, B.Sc., Research Associate in Coleoptera

HERBERT F. SCHWARZ, M.A., Research Associate in Hymenoptera

E. L. BELL, Research Associate in Lepidoptera

LIVING AND EXTINCT FISHES

WILLIAM K. GREGORY, Ph.D., Curator*

JOHN T. NICHOLS, A.B., Curator of Recent Fishes

E. W. GUDGER, Ph.D., Bibliographer and Associate Curator

FRANCESCA R. LAMONTE, B.A., Associate Curator

CHARLES H. TOWNSEND, Sc.D., Research Associate

C. M. BREDER, Jr., Research Associate

LOUIS HUSSAKOF, Ph.D., Research Associate in Devonian Fishes

WILLIAM BEEBE, Sc.D., Research Associate in Oceanography

E. GRACE WHITE, Ph.D., Research Associate

VAN CAMPEN HEILNER, M.S., Field Representative

* Also Research Associate in Palaeontology and Associate in Physical Anthropology.

HERPETOLOGY

G. KINGSLEY NOBLE, Ph.D., Curator

HARVEY BASSLER, Ph.D., Research Associate in Herpetology

EXPERIMENTAL BIOLOGY

G. KINGSLEY NOBLE, Ph.D., Curator

H. J. CLAUSEN, Ph.D., Assistant Curator

DOUGLAS BURDEN, M.A., Research Associate

FRANK S. MATHEWS, M.D., Research Associate

HOMER W. SMITH, Sc.D., Research Associate

O. M. HELFF, Ph.D., Research Associate

CHARLES E. HADLEY, Ph.D., Research Associate

ORNITHOLOGY

FRANK M. CHAPMAN, Sc.D., Curator

JOHN T. ZIMMER, M.A., Executive Curator

ROBERT CUSHMAN MURPHY, D.Sc., Associate Curator of Oceanic
Birds

JAMES P. CHAPIN, Ph.D., Associate Curator of Continental Old
World Birds

ERNST MAYR, Ph.D., Associate Curator of The Whitney-Rothschild
Collections

CHARLES E. O'BRIEN, Assistant Curator

ELSIE M. B. NAUMBURG, Research Associate

ALBERT R. BRAND, Associate in Ornithology

MAMMALOLOGY

H. E. ANTHONY, D.Sc., Curator

GEORGE G. GOODWIN, Assistant Curator

G. H. H. TATE, M.A., Assistant Curator of South American
Mammals

T. DONALD CARTER, Assistant Curator of Old World Mammals

J. E. HILL, Ph.D., Assistant Curator

RICHARD ARCHBOLD, Research Associate

WILLIAM J. MORDEN, Ph.B., Field Associate

ARTHUR S. VERNAY, Field Associate

COMPARATIVE AND HUMAN ANATOMY

WILLIAM K. GREGORY, Ph.D., Curator

H. C. RAVEN, Associate Curator

S. H. CHUBB, Associate Curator

J. HOWARD MCGREGOR, Ph.D., Research Associate in Human Anatomy

DUDLEY J. MORTON, M.D., Research Associate

FREDERICK TILNEY, M.D., Ph.D., Research Associate

ANTHROPOLOGY

CLARK WISSLER, Ph.D., LL.D., Curator

N. C. NELSON, M.L., Curator of Prehistoric Archaeology

GEORGE C. VAILLANT, Ph.D., Associate Curator of Mexican Archaeology

HARRY L. SHAPIRO, Ph.D., Associate Curator of Physical Anthropology

MARGARET MEAD, Ph.D., Assistant Curator of Ethnology

W. C. BENNETT, Ph.D., Assistant Curator of Anthropology

BELLA WEITZNER, Assistant Curator of Anthropology

WILLIAM W. HOWELLS, Ph.D., Associate in Physical Anthropology

CLARENCE L. HAY, A.M., Research Associate in Mexican and Central American Archaeology

MILO HELLMAN, D.D.S., D.Sc., Research Associate in Physical Anthropology

GEORGE E. BREWER, M.D., LL.D., Research Associate in Somatic Anthropology

FREDERICK H. OSBORN, Research Associate in Anthropology

ASIATIC EXPLORATION AND RESEARCH

ROY CHAPMAN ANDREWS, Sc.D., Curator

WALTER GRANGER, D.Sc., Curator of Palaeontology

CHARLES P. BERKEY, Ph.D., Sc.D. (Columbia University), Research Associate in Geology

AMADEUS W. GRABAU, S.D. [The National Geological Survey of China], Research Associate

PÈRE TEILHARD DE CHARDIN [The National Geological Survey of China], Research Associate in Mammalian Palaeontology

EDUCATION

GEORGE H. SHERWOOD, Ed.D., Curator
GRACE FISHER RAMSEY, M.A., Associate Curator
WILLIAM H. CARR, Assistant Curator
HERMAN A. SIEVERS, Staff Assistant
JOHN SAUNDERS, Staff Assistant
FARIDA A. WILEY, Staff Assistant
AGNES KELLY SAUNDERS, A.M., Staff Assistant
L. WALES HOLDEN, Staff Assistant
WILLIAM LORD SMITH, M.D., Staff Assistant
GEORGINE MASTIN, Staff Assistant
PAUL B. MANN, A.M., Associate in Education
GLADYS L. PRATT, Associate in Education
FRANK E. LUTZ, Ph.D., Research Associate in Outdoor Education

LIBRARY

HAZEL GAY, Librarian
HELEN GUNZ, Assistant Librarian
JANNETTE MAY LUCAS, B.S., Assistant Librarian—Osborn Library

ARTS, PREPARATION AND INSTALLATION

JAMES L. CLARK, D.Sc., Director
ALBERT E. BUTLER, Associate Chief
FRANCIS L. JAKES, Staff Associate

PRINTING AND PUBLISHING

TOM DAVIN, Manager of Publications and Printing
ETHEL J. TIMONIER, Associate Editor of Scientific Publications

NATURAL HISTORY

TOM DAVIN, Manager of Publications and Printing
EDWARD MOFFAT WEYER, Jr., Ph.D., Editor
A. KATHERINE BERGER, Associate Editor

PUBLIC AND PRESS INFORMATION

HANS CHRISTIAN ADAMSON, *Chairman*

CORRESPONDING FOREIGN MEMBERSHIP

*Through honorary election, for five-year periods, on recommendation
of the Scientific Staff*

(Limited to 25)

- | | |
|--|--|
| DR. FRANK D. ADAMS,
Emeritus Professor of Geology,
McGill University, Montreal,
Quebec, Canada | DR. BERTHA LUTZ,
Edificio Itauna, Rio de Janeiro,
Brazil |
| DR. CHARLES ANDERSON,
Director, Australian Museum, Sydney,
N. S. W., Australia | DR. ROBERT MERTENS,
Senckenbergisches Museum, Frankfurt-am-Main, Germany |
| PROFESSOR DR. ANGEL CABRERA,
Chief of the Department of Palaeontology,
Museo de La Plata, Buenos Aires, Argentina | H. W. PARKER, ESQ.,
British Museum (Natural History),
London, England |
| PROFESSOR YUANTING T. CHU,
St. John's University, Shanghai, China | PROFESSOR DR. CARLOS E. PORTER,
Instituto de Zoología General y Sistemática, Santiago, Chile |
| PÈRE TEILHARD DE CHARDIN,
The National Geological Survey of China,
West Peiping, China | DR. CHARLES TATE REGAN,
British Museum (Natural History),
London, England |
| DR. NILS (COUNT) C. G. FERSEN
GREVE GYLDENSTOLPE,
Section of Vertebrates, Naturhistoriska
Riksmuseet, Stockholm, Sweden | DR. JOSÉ REYGADAS VÉRTIZ,
Chief of the Department of Historical
Monuments, and Secretary of Public
Education, Mexico, D. F., Mexico |
| DR. SIDNEY H. HAUGHTON,
South African Museum, Cape Town,
Cape of Good Hope, Union of South Africa | DR. PAUL RIVET,
Société des Americanistes de Paris,
Paris, France |
| PROFESSOR ARCHIBALD G. HUNTSMAN,
Associate Professor, University of
Toronto, Toronto, Ontario, Canada | DR. FILIPPO SILVESTRI,
Director, R. Scuola Superiore di
Agricoltura, Portici, Italy |
| DR. KARL JORDAN, Tring, England | DR. G. ELLIOT SMITH,
Professor of Anatomy, University
College, London, England |
| PROFESSOR ALFRED LACROIX,
Professor of Mineralogy, Musée
National d'Histoire Naturelle,
Paris, France | DR. ELIS STRÖMGREN,
Director, Royal Observatory,
Copenhagen, Denmark |
| DR. PERCY R. LOWE,
British Museum (Natural History),
London, England | PROFESSOR DR. FRIEDRICH VON
HUENE,
University of Tübingen, Tübingen,
Germany |

THE AMERICAN MUSEUM OF NATURAL HISTORY

INCORPORATED BY THE

LEGISLATURE OF THE STATE OF NEW YORK IN 1869

The Corporation consists of a self-perpetuating Board of thirty Trustees, elected for terms of five years. Also, *ex-officio*, the Mayor, the Comptroller, and the Commissioner of Parks of the City of New York.

FOUNDERS AND INCORPORATORS OF 1869

JOHN DAVID WOLFE	BENJAMIN B. SHERMAN	MORRIS K. JESUP
ROBERT COLGATE	WILLIAM A. HAINES	D. JACKSON STEWARD
BENJAMIN H. FIELD	THEODORE ROOSEVELT	J. PIERPONT MORGAN
ROBERT L. STUART	HOWARD POTTER	A. G. PHELPS DODGE
ADRIAN ISELIN	WILLIAM T. BLODGETT	CHARLES A. DANA
JOSEPH H. CHOATE		HENRY PARISH

HISTORY

PRESIDENCY OF JOHN DAVID WOLFE, 1869-1872.

1869 Museum incorporated. Constitution adopted as drafted by Joseph H. Choate.

1870 First home secured, the Arsenal, Central Park.

1871 The City of New York appropriated \$700,000 for building. (Section I.)

PRESIDENCY OF ROBERT L. STUART, 1872-1881.

1874 Cornerstone of first section of building laid by President Ulysses S. Grant.

1878 Contract adopted between Trustees and Department of Parks, as drawn up by Andrew H. Green and Joseph H. Choate.

1880 Educational work with the schools inaugurated by Professor Albert S. Bickmore.

PRESIDENCY OF MORRIS K. JESUP, 1881-1908.

1892 Museum opened to the public on Sundays.

1887-1905 The City of New York appropriated \$4,218,820.94 for eight new building sections, II-VIII, and XV.

1907 Museum opened free to the public every day in the year.

1908-1917 Mr. and Mrs. Jesup bequeathed \$6,000,000 to the Museum.

PRESIDENCY OF HENRY FAIRFIELD OSBORN, 1908-1933.

1908 Constitution amended making the Mayor, the Comptroller and the President of the Department of Parks, *ex-officio* members of the Board of Trustees.

1921 Greater New York Charter amended, placing the Museum on the same basis as Public Schools with respect to Corporate Stock Appropriations, by Chapter 618 of the Laws of 1921, State of New York.

1921-1925 The City of New York appropriated \$2,233,800 for new sections, IX-XI, and Equipment and Alterations of old sections.

1924 The State of New York provided for the Theodore Roosevelt Memorial (Educational). Cost \$3,500,000. (Original Chapter 615, Laws of 1924.) (Building Section XII.)

1929 Appropriation of \$3,550,000 by the City of New York for construction of African Wing, Power Plant and Service Building, and South Oceanic Wing. (Sections XIII, XVII and XIX.)

Contribution of \$750,000 by Harry Payne Whitney for one-half cost of South Oceanic Wing. (Section XIX.)

PRESIDENCY OF F. TRUBEE DAVISON, 1933-

1934 Contribution of \$150,000 by Charles Hayden for purchase of Zeiss Projection Planetarium and Copernican Planetarium.
The American Museum of Natural History Planetarium Authority erecting Planetarium Building with funds (\$650,000) secured through loan from the Reconstruction Finance Corporation. (Building Section XVIII.)

PERMANENT ENDOWMENT

The Endowment Fund was established in 1884. It now amounts to \$15,206,924.80 (book value). The Trustees especially desire to insure the permanent growth and welfare of the Museum through an increase of the General Endowment Fund. The additional sum of \$10,000,000 is needed at present.

FORM OF BEQUEST

I do hereby give and bequeath to "THE AMERICAN MUSEUM OF NATURAL HISTORY" of the City of New York

.....

.....

GIFTS AND BEQUESTS EXEMPT FROM TAXATION

Gifts, to the extent of fifteen per cent. of net income of the donor, and Bequests of any extent to The American Museum of Natural History are exempt from federal taxation, under the Federal Revenue Acts of 1926 and 1928.

MEMBERSHIP, CONTRIBUTORY AND HONORARY

The Classes of Contributory Membership are:

ASSOCIATE MEMBERS (annually)..	\$3	PATRONS	\$1,000
ANNUAL MEMBERS (annually)..	10	ASSOCIATE BENEFACTORS....	10,000
SUSTAINING MEMBERS (annually)	25	ASSOCIATE FOUNDERS.....	25,000
LIFE MEMBERS.....	200	BENEFACTORS	50,000
FELLOWS	500	ENDOWMENT MEMBERS.....	100,000

HONORARY LIFE MEMBERS HONORARY FELLOWS
CORRESPONDING MEMBERS

FOR INFORMATION APPLY TO THE SECRETARY OF
THE AMERICAN MUSEUM OF NATURAL HISTORY
77th Street and Central Park West

Fellow Member:

The American Museum of Natural History will appreciate your kind assistance in placing the attached application in the hands of a friend who you think would enjoy the privileges of membership in the Museum.

FREDERICK TRUBEE DAVISON,
President

.....

President Frederick Trubee Davison
The American Museum of Natural History,
77th Street and Central Park West,
New York, N. Y.

Dear Sir:

I am interested in the activities of The American Museum of Natural History, and wish to subscribe to its work.

I desire to become

- | | | | |
|-----------------------------------|------|----------------------------------|-------|
| An Associate Member .. (annually) | \$3 | A Sustaining Member.. (annually) | \$25 |
| An Annual Member ... (annually) | \$10 | A Life Member..... | \$200 |
| A Fellow..... | | \$500 | |

Please present my name to the Executive Committee of the Trustees. My cheque for \$....., payable to *Treasurer*, The American Museum of Natural History, of which \$2.10 is for a year's subscription to *Natural History*, is enclosed herewith. (If application is for life membership, it is understood that \$35 of the fee is for a life subscription to the magazine.)

Yours truly,

.....
(Name)

.....
(Number and Street)

.....
(City or Town)

.....
(State)

Additional copies of this application will gladly be sent on request

Associate Members of The American Museum of Natural History enjoy the following privileges:

Current issues of NATURAL HISTORY—a popular illustrated magazine of science, travel, exploration and discovery, published monthly (except July and August).
A copy of the President's *Annual Report*, on request.

An Annual Pass admitting to the Members' Room. This large tower room on the third floor of the building, open every day in the year, is given over exclusively to Members, and is equipped with every comfort for rest, reading and correspondence.

Two Complimentary Tickets admitting to the Members' Room for distribution by Members to their friends.

The services of an Instructor for guidance when visiting the Museum.

In addition to the above privileges, Members enrolled in the higher classes are entitled to the following:

An Annual Pass admitting the Member and friends accompanying him to the Reserved Seat Section of the auditorium at Lectures for Members.

Two Single Admission Course Tickets to Spring and Autumn Series of Lectures for Members, to distribute to friends.

Two Single Admission Course Tickets to Spring and Autumn Series of Lectures for the Children of Members.

Current numbers of all *Guide Leaflets*, on request.

SPECIAL SCIENTIFIC PUBLICATIONS (Continued)

TERTIARY MAMMALS AND PERMIAN VERTEBRATES:

Hitherto unpublished plates. Prepared under the direction of Edward Drinker Cope, with descriptions of plates by William Diller Matthew. 1915. \$4.25.

FOSSIL VERTEBRATES IN THE AMERICAN MUSEUM:

Volumes I-XI. Collected reprints from the Department of Vertebrate Palaeontology. 1925-1933. \$5.00-\$15.00 each.

ZOOLOGY OF THE CONGO:

The following parts have appeared (1915-1935):

Mammalogy, 16 papers, \$13.85; Ornithology, 12 papers, \$11.15; Ichthyology, 7 papers, \$2.50; Herpetology, 3 papers, \$9.00; Entomology, 29 papers, \$26.10; General Invertebrate Zoology, 12 papers, \$14.60.

Collected papers from the American Museum Bulletin and Novitates: to be completed in 12 volumes.

CENTRAL ASIATIC EXPEDITIONS:

Collected papers from the American Museum Bulletin and Novitates:

Vol. I. "Preliminary Reports," 1918-1925. 8vo. \$10.40.

Vol. II. "Preliminary Reports," 1926-1929. 8vo. \$9.75.

Vol. III. Current.

"The Natural History of Central Asia," 12 quarto volumes:

1932. Vol. I. "The New Conquest of Central Asia," by R. C. Andrews and others, \$10.00.

1927. Vol. II. "The Geology of Mongolia," by C. P. Berkey and F. K. Morris, \$10.00.

Vol. III. "Geologic Studies in Mongolia," by C. P. Berkey, F. K. Morris, L. E. Spock, and Père Teilhard de Chardin. (In preparation.)

Vol. IV. "The Permian of Mongolia," by A. W. Grabau, 1931. \$10.00.

Vol. V. "The Topography of Mongolia," by C. P. Berkey, L. B. Roberts, and W. P. T. Hill. (In preparation.) Route-maps of 1925 (45 in number) ready for this volume. For sale at \$7.50 per set.

Vol. VI. "The Fossil Reptilia of Mongolia," by H. F. Osborn and W. Granger. (In preparation.)

Vol. VII. "The Fossil Mammalia of Mongolia," by H. F. Osborn and W. Granger. (In preparation.)

Vol. VIII. "The Archaeology of Mongolia," by N. C. Nelson and A. W. Pond. (In preparation.)

Vol. IX. "The Fishes of China," by J. T. Nichols. (In manuscript.)

Vol. X. "The Reptiles of China," by C. H. Pope, 1935. \$10.00.

Vol. XI. "Mammals of Mongolia and China," by Glover M. Allen. (In manuscript.)

Vol. XII. "The Botany and Palaeobotany of Mongolia," by R. W. Chaney. (In preparation.)

(Publications continued on fourth page of cover.)

SPECIAL SCIENTIFIC PUBLICATIONS (Continued)

THE U. S. S. "ALBATROSS" in Lower California Seas. Cruise of 1911. In charge of C. H. Townsend. Collection of reprints from the American Museum Bulletin and Novitates. \$7.25.

JOEL ASAPH ALLEN, 1838-1921:

Autobiographical Notes and a Bibliography of the Scientific Publications. 1916. \$2.00.

FREDERIC AUGUSTUS LUCAS, 1852-1929:

Fifty Years of Museum Work: Autobiography, Unpublished Papers, and Bibliography. 1933. \$1.00.

HANDBOOKS, GUIDE LEAFLETS AND GUIDE:

Handbook Series Nos. 1-12, 1912-1935. Dealing with subjects illustrated by the collections rather than with the objects themselves. 75c.-\$1.00 each.

Guide Leaflet Series: Nos. 1-90, 1901-1935. Illustrated pamphlets describing exhibits, or series of exhibits, of special interest and importance, or dealing with the contents of an entire hall. 10c.-50c. each.

General Guide to the Collections: Twentieth Edition. 156 pages and many illustrations. 1935. 35c.

SCHOOL SERVICE SERIES:

A pamphlet, dealing with the Museum's first Nature Trails, by Frank E. Lutz, Curator, Department of Insect Life. 1931. Illustrated, 10c.

Seven pamphlets, dealing with the Nature Trails and Trailside Museum at Bear Mountain, by William H. Carr, Assistant Curator, Department of Education. Illustrated. 15c.-20c. each.

Three pamphlets on Projects in Science and Nature Study, 15c.-25c. each.

SPECIAL ADMINISTRATIVE PUBLICATIONS

ANNUAL REPORTS OF THE PRESIDENT:

First Report, January, 1870, by Hon. Joseph H. Choate. Reports distributed to libraries and scientific institutions, also to Members.

HISTORY, PLAN AND SCOPE of The American Museum of Natural History:

Its Origin, Its History, the Growth of Its Departments. Trustees' edition, 50 copies, published February 14, 1910; Curators' edition, 600 copies, published July 1, 1911.

ANNUAL REPORTS OF THE PENSION BOARD: Nos. 1-22, 1913-1934.

ALL PUBLICATIONS ARE ISSUED BY THE TRUSTEES. THEY ARE DISTRIBUTED IN EXCHANGE FOR SIMILAR PUBLICATIONS FROM ALL PARTS OF THE WORLD. APPLICATIONS FOR PURCHASE OR EXCHANGE MAY BE MADE TO

THE LIBRARIAN

THE AMERICAN MUSEUM OF NATURAL HISTORY

77th Street and Central Park West, New York City