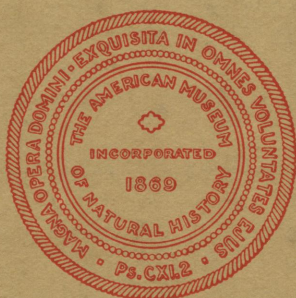


THE AMERICAN MUSEUM AND DEFEATISM



"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."

SIXTY-FOURTH
ANNUAL REPORT OF THE TRUSTEES FOR
THE YEAR 1932 : : THE AMERICAN
MUSEUM OF NATURAL HISTORY
MAY 1, 1933

SERIAL SCIENTIFIC PUBLICATIONS

NATURAL HISTORY, Journal of The American Museum:

Volumes I-XXXII, 1900-1932. An illustrated bimonthly magazine 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 free to all classes of membership, or on subscription \$3.00.

BULLETIN of The American Museum:

Volumes I-LXV, 1881-1932. Scientific records of explorations and collections of the Museum, in Geology, Palæontology, 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-XXXIII, 1906-1932. Discoveries, explorations and researches in Archæology, 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. 1-589, 1921-1932. Devoted to publication of preliminary announcements and descriptions of new forms in the fields of Zoology, Palæontology, Geology and Mineralogy. 15c. each.

MEMOIRS of The American Museum:

Volumes I, III, VI and IX, 1893-1909: contributions by Whitfield, Osborn, Beutenmuller, 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 Palæontology, \$2.00-\$12.00 a 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.

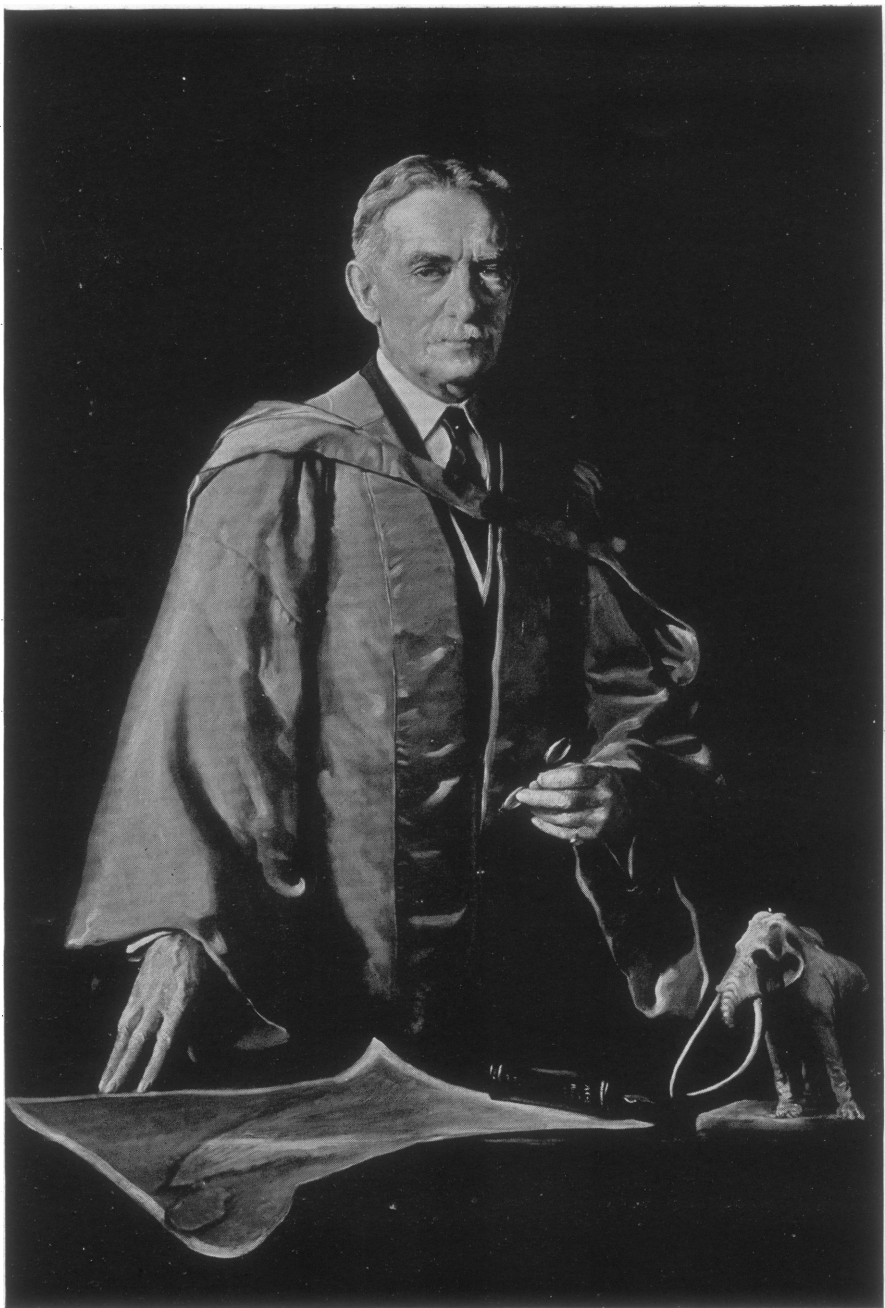
BIBLIOGRAPHY OF FISHES:

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.

(Publications continued on third page of cover)



Henry Fairfield Osborn
Honorary President of The American Museum of Natural History.
Portrait painted by Julian Lamar in 1933, by order of the Trustees

THE AMERICAN MUSEUM AND DEFEATISM



"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."

SIXTY-FOURTH ANNUAL REPORT OF THE TRUSTEES FOR THE YEAR 1932 : : THE AMERICAN MUSEUM OF NATURAL HISTORY

THE CITY OF NEW YORK

Issued May 1, 1933



THE AMERICAN MUSEUM PRESS, 1903-1932

Established in the year 1903 as a one-man, one-handlever press. The original purpose of the press was the printing of Museum labels. In 1905, an electrically driven job press. In 1918, monotype and first cylinder press installed, besides three job presses. In 1925, press included a foreman and 12 assistants; 3 job presses in use; 2 cylinder presses, one of these equipped with automatic feeder and pile delivery. In 1926, an automatic vertical job press was added.

Since 1926 no additional equipment and no new employees in the composing room and press room have been added, yet the output of printing has increased from 1,100,000 press impressions in 1927 to 3,833,348 press impressions in 1932. Practically all of the American Museum's scientific and administrative publications listed on the cover are printed by the American Museum Press, in addition to NATURAL HISTORY and a great variety of other kinds of printing.

HAWTHORNE DANIEL, Curator, Printing and Publishing

IDA RICHARDSON HOOD, Curator, Library and Publications

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**THE AMERICAN MUSEUM
AND DEFEATISM
1869-1932**

**SIXTY-FOURTH ANNUAL REPORT OF
THE PRESIDENT OF THE AMERICAN
MUSEUM OF NATURAL HISTORY FOR
THE YEAR 1932**

**REPORTS OF THE PRESIDENT, TREASURER,
SECRETARY AND DIRECTOR**

To the Members of The American Museum of Natural History:

The first Annual Report of The American Museum of Natural History for the foundation year 1869 was a pamphlet of thirty pages written by our distinguished Founder and Trustee, Joseph Hodges Choate.

Beginning in 1908, the twenty-five Presidential reports by Henry Fairfield Osborn are devoted to the part a Natural History Museum should play in the social, educational, cultural and scientific life of the American people, as indicated by the successive titles of the final twelve reports:

- THE AMERICAN MUSEUM IDEAL*, year 1921, issued in 1922.
- THE AMERICAN MUSEUM AND CITIZENSHIP*, year 1922, issued in 1923.
- THE AMERICAN MUSEUM AND THE WORLD*, year 1923, issued in 1924.
- THE AMERICAN MUSEUM AND EDUCATION*, year 1924, issued in 1925.
- THE AMERICAN MUSEUM ENDOWMENT*, year 1925, issued in 1926.
- THE AMERICAN MUSEUM SCHOOL SERVICE*, year 1926, issued in 1927.
- BUILDING THE AMERICAN MUSEUM, 1869-1927*, year 1927, issued in 1928.
- THE SIXTIETH ANNIVERSARY ENDOWMENT*, year 1928, issued in 1929.
- ENDOWMENT OF THE AMERICAN MUSEUM*, year 1929, issued in 1930.
- THE AMERICAN MUSEUM AND THE UNIVERSITY*, year 1930, issued in 1931.
- AMERICAN MUSEUM EXPLORATION AND RESEARCH*, year 1931, issued in 1932.
- THE AMERICAN MUSEUM AND DEFEATISM*, year 1932, issued in 1933.

Standard copies of these annual contributions to national education are issued to Museums and other Scientific Institutions, to Libraries, to Universities and Colleges and to Members of the American Museum. Omitted this year for reasons of economy are membership lists and acknowledgments of gifts. Applications for copies of the present or earlier reports should be addressed to

DR. GEORGE H. SHERWOOD, Executive Secretary of the Board of Trustees,
The American Museum of Natural History, New York, N. Y.

THE AMERICAN MUSEUM AND DEFEATISM

BY HENRY FAIRFIELD OSBORN

Interview with the New York Times, August 8, 1932

"I've been busy of late trying to defeat defeatism. It's time for us to look up and in another direction." There is no depression in the scientific work of Dr. Osborn. He has carried it on for fifty-four years with accumulating vigor.

"The Board of Estimate in New York is restoring an appropriation of \$100,000 which will make possible the opening of the two wings," Dr. Osborn said. "The city should receive credit for its action. It is true that the museum has had to curtail its expeditionary work, but, taking things as they are in general, we feel that we are doing well at the museum, that we are progressing and will continue to do so."

When the Third International Congress of Eugenics opens August 21 at the Museum of Natural History, Dr. Osborn will extend another of his theories in another field. Recalling that upon his return from a world cruise last spring he had declared that some judicious limitation of the human birth rate must precede any permanent solution of overpopulation, overproduction, and unemployment problems, he has given much time and effort to the preparation of a paper on that subject which he will present before the congress. . . .

THE American Museum slogan of the year 1932 is heralded in the title of our Report. It was first briefly expressed soon after the President's return from a voyage around the world, January 9 to April 29, 1932, in the epigrammatic phrase:

"LET US DEFEAT DEFEATISM"

Clemenceau enriched both the French and English languages when he coined the word *défaitisme* in the course of a public debate in the Senate, July 22, 1917, with Malvy, Minister of the Interior. The word is now defined as "state of mind, principles, actions, etc., of those who accepted the defeat of their own country, especially in the Great War, as inevitable, and acted accordingly."¹ Indirectly Clemenceau also defined a new class of people, namely, "defeatists," as adherents of, or believers in, defeatism.

¹The Universal Dictionary of the English Language, edited by Henry Cecil Wyld, London, 1932, page 286.

All around the world the President observed the stagnation of trade and the consequent world-wide depression or downheartedness, but this is something quite different from the defeatist spirit which we Americans encounter not only in all the material aspects of life but also in the moral, spiritual and intellectual aspects of life.

It is one thing to ascertain that appropriations of money have been eliminated both by the City and by the State, that the construction of Museum buildings is suspended, that the income from endowment funds is threatened, that field expeditions are cut off, that retrenchment is the order of the day, that lifelong Museum members are dropping their names from the rolls, in brief that the American Museum is feeling its full share of the universal financial reaction.

But to admit for one moment that any of the elevating and ennobling aspects of Nature should be affected in the least degree by this bankruptcy of human nature is quite another matter.

The first and most essential step in the restoration of our sixty-four year uninterrupted progress is to deny that the defeatist spirit has any right to enter the portals of the American Museum or to essentially halt its progress. With the able coöperation of the Administrative Staff of the Museum, of Treasurer Perkins, and of Chairman Dodge of the Executive Committee, one after another of the financial obstacles which in August, 1932, appeared insurmountable were stoutly faced and overcome, as follows:

First, in the successful operation of the balanced budget for the year 1932 despite income reduced in the amount of \$37,464.14. This was a real achievement, a great satisfaction to the Trustees, for it confirmed their confidence in the internal management of the Museum. The year 1932 actually ended with a balance of \$4,982.51 carried forward into 1933.

Second, we faced the extremely difficult problem of preparing a balanced budget¹ of \$1,240,221.42 for the year 1933 despite a total deficiency in prospective income of \$182,502.40. The preparation of this balanced budget occupied no less than five months' time and eventually

¹As of March, 1933.



Photo by De Witt Ward

Harry Payne Whitney

Photograph taken in 1909, when he was captain of the American polo team which brought the international cup from England

resulted as follows: (1) It placed no deficiency burden on the Trustees who are already very heavily burdened by contributions to unemployment and other funds; (2) it caused a five per cent. reduction of income on the part of the entire Administrative and Scientific Staffs, the retirement of employees who could be placed on the Pension Fund or dismissed; (3) it forced the part-time closure of ten exhibition halls in rotation and the possible reintroduction of pay days; (4) it lopped off expeditionary appropriations and in some departments found the Museum running on bare poles but still vigorously operating; (5) constructively it did provide for concentration on the final equipment and opening of three new exhibition halls, thus fulfilling our moral obligations with the City.

Third, nor was the Sixtieth Anniversary Endowment Committee, headed by Chairman Osborn, idle. Five thousand letters were sent to prominent lawyers of the eastern United States, inviting their friendly interest and support. Dr. Roy Chapman Andrews, ably assisting Chairman Osborn, had a large number of personal interviews, making new friends for the Museum, who, when more prosperous times return, will come to our financial aid. The actual or paid-up contributions to the Endowment Fund during the year 1932 were \$74,153.69. Thereby the total additions to the Sixtieth Anniversary Endowment under the Chairmanship of President Osborn have been \$2,215,968.08.

The total endowment on his retirement on January 9, 1933, was \$14,082,048.96. He now retires from the Chairmanship of the Trustee Endowment Committee feeling that he has done his best for this absolutely essential factor in Museum progress.

Fourth, funds were fortunately in hand for the completion of the South Oceanic (Section 19), otherwise known as the Whitney Wing, and vigorous efforts were made with both the City and the State to restore appropriations essential to complete and operate the other two great buildings now under way, namely, the African (Section 13), and the Roosevelt Memorial (Section 12). Of the \$302,389.98 rescinded for the African Hall, \$85,000.00 was finally restored, making possible the opening of two great exhibition halls within the

present year 1933 and the operation of the remainder of this magnificent section with the prospect of entire completion in 1934. Similarly Governor Lehman added \$196,000 to the total previous expenditure on the Roosevelt Memorial of \$3,475,000.00 to insure the opening on October 27, 1933.

Fifth, while important field expeditions were suspended, such as the Central Asiatic, no less than four expeditions were sent into Asia, three into Middle America, six into North America, three into South America, and one into Europe. These were aided by the interest on special endowment funds such as that of the Frederick G. Voss bequest, by the special gifts of Mrs. Sidney J. Legendre, of Dr. Lorenzo D. Armstrong, of Mr. and Mrs. Carl Tucker, of Mr. John G. Phillips, of Mr. Horace Scarritt, and of Mr. Gilbert Ottley. In Vertebrate Palaeontology there was an unchecked continuation of the superb field exploring work under Honorary Curator Childs Frick.

In brief, no less than seventeen expeditions in Zoology, Palaeontology and Anthropology were sent into various parts of the world during the year, despite the depressing financial conditions in the world at large.

Sixth, this depressing season was also cheered by the greatest single gift which has ever been made to the American Museum of Natural History, namely, the Rothschild Collection of Birds by Mrs. Harry Payne Whitney and her children. The circumstances of this noble gift are given more fully in the body of this report.

Seventh, researches and publications of the year 1932 have surpassed those of any previous year both in variety and in national and international interest and importance. The Proboscidea Memoir is now in its twenty-fifth year; it reaches the magnitude of nearly one thousand pages and over a thousand illustrations and is descriptive of over four hundred species; it throws new light on Anthropology by the dating of prehistoric men and upon Biology by the discovery of the creative order of evolution or *Aristogenesis*.

The most notable event in research and publication is the completion of Dr. James P. Chapin's fifteen-year researches on the birds of the Congo and the publication of his

volume, "The Birds of the Belgian Congo." This will rank among the most important contributions to ornithology yet made in this country. At the close of the year 1932 appeared Dr. Roy Chapman Andrews' distinguished volume entitled "The New Conquest of Central Asia," which will be noticed elsewhere in this report.

Eighth, the primary public purpose of the American Museum, namely, the visual and oral education and inspiration of the two million children of the schools, has enjoyed an unparalleled extension—in the enlarged school service to elementary and secondary schools, in the teacher training courses, in the closer college and university contacts, in the contributions to adult education and utilization of leisure hours, in the nation-wide and world-wide radio addresses by distinguished members of our staff, as fully set forth below in the Director's report.

These outstanding activities and results of 1932, the twenty-fifth year of President Osborn's administration, should reassure our members and friends in all parts of the world that while we may be temporarily suffering from the financial depression there is not a trace of defeatism or of the defeatist spirit in any part of the American Museum of Natural History, nor will there be in the new and incoming administration of President F. Trubee Davison.

WHITNEY SOUTH SEA EXPEDITION

An expedition to conduct a systematic exploration, collection and investigation of birds among the Pacific Islands, long a cherished dream of our Trustee Dr. Leonard C. Sanford, was finally launched during the summer of 1920 with the support of Mr. Harry Payne Whitney. Since the death of the original patron in 1930, the work has been maintained by Mrs. Whitney.

The scientific need for field work of the kind undertaken by the Whitney Expedition may be expressed very briefly by contrasting the history of zoölogical collecting among the Pacific Islands with that of the principal continental regions. In the main, the continents have been comprehensively explored by numerous and well equipped expeditions, whereas most of our knowledge of the larger island groups,

such as those of the South Pacific, has been based upon scattered or haphazard collecting by representatives of many different nations and institutions, and at long intervals of time.

Including the committee of administration, no less than nineteen persons have taken part in the work of the Whitney South Sea Expedition and in publication relating to its collections and researches. With the advantage of possessing its own vessel, the expedition has been enabled to work the Pacific archipelagoes systematically. All the Polynesian groups with the exception of Hawaii and New Zealand have been investigated. During the last five years, important collections have been amassed in Melanesia and Micronesia as well, including material from many islands in which field operations are physically very difficult. More than 3,000 islands have been visited to date. Excluding calls of our schooner, the "France," at ports of Australia, New Zealand, and the Philippines, the itinerary and labors of the field party have been approximately as follows:

Society Group, 1920-1923; Line Group, 1921; Austral Group and outliers, 1921, 1922; Marquesas Group, 1921, 1922; Tuamotu Group, 1921-1923; Cook Group, 1923; Samoa Group, 1923, 1924; Phoenix and Union Groups, 1924; Fiji Group, 1924, 1925; Wallis, Horne, Rotumah Islands, 1925; Tonga Group, 1925; Kermadec Group, 1925; New Zealand littoral, 1925, 1926; Chatham Group, 1926; Norfolk Island, 1926; New Hebrides Group, 1926, 1927; Banks Group, 1926; Torres Group, 1926; Santa Cruz Group, 1926, 1927; Solomon Group, 1927-1930; D'Entrecasteaux and Louisiades Group, 1928-1930; New Guinea, 1928, 1929; Gower and Ongtong Java Islands, 1930; Micronesia (Palau Group, Ponapé, Kusaie, Guam, etc.), 1930, 1931; New Britain and New Ireland, 1928, and 1932 to date.

The first field leader of the Whitney Expedition was the veteran exploring naturalist, Mr. Rollo H. Beck, who already had behind him a long record of service to the American Museum. Mr. Beck remained in command for eight years, to be succeeded by Mr. Hannibal Hamlin, who served with the Expedition from 1927 to 1930. Toward the end of the

latter year, Mr. William F. Coultas, who had joined the party during 1929, succeeded Mr. Hamlin as leader, a post which he still retains. Mr. José G. Correia, a member of the field party between 1923 and 1927, acted as leader during six months of 1923 when Mr. Beck had returned to New York for consultation. Through these unparalleled efforts under such devoted leaders, the Pacific ornithological collections of the Whitney Expedition have grown to be the finest in the world. Moreover, owing to the rapid changes taking place in the South Sea region, the time has now passed in which it would be possible to amass such collections again. The American Museum has sufficient material for very important scientific studies, for supplying other museums with specimens in exchange (which will have the effect of further enriching its own collections), and finally for making exhibits of oceanic and island bird life which, it is hoped, will be more effective and beautiful than anything of the same nature heretofore planned.

Publication of ornithological studies based upon the Whitney Collection has been in progress for several years. A series of papers has appeared in the *American Museum Novitates* from the pens of Curator Robert Cushman Murphy, Dr. Ernst Hartert, and Dr. Ernst Mayr; the last-named is at present devoting all his time to this work.

The enormous growth of the Museum's bird collections, resulting from the Whitney South Sea Expedition, from work instituted in several parts of the Far East by Dr. Sanford, and from continuous South American field work, long since turned our thoughts toward the need of a more adequate headquarters for the Department of Birds than was provided on the fifth floor of the old north wing of the Museum. The interest of Mr. Whitney had been continually whetted by the success of the work he had sponsored in the Pacific, and in January, 1929, this led him to take steps leading toward the construction of a separate section of our building, to be devoted entirely to the science of ornithology.

WHITNEY MEMORIAL WING, SECTION 19, CONSTRUCTED BY COMBINED TRUSTEE AND CITY ACTION

From its foundation, the buildings of the American Museum have been constructed from public funds and are the permanent property of the City of New York. As a *quid pro quo* all the collections and exhibitions within these buildings are the permanent property of the Trustees as the gifts of Trustees and members. This reciprocal arrangement has worked admirably, and the total building costs of the past sixty-four years show that they are very evenly balanced with the total costs or value of collections and exhibits. As a rule, building has kept pace with gifts and with the priceless results of our field explorations. For a brief period, namely, seven years after President Osborn took office, the City lagged behind in its appropriations for building and this gave the President very serious concern because collections were coming in more rapidly than the space necessary to house and properly care for them.

At this critical juncture in the year 1915 the President made a very serious effort to secure a building fund, the chief response being the splendid donation by Dr. James Douglas of \$100,000 which during the next three years was expended for building purposes. Our record at this time is as follows:

1915 For year 1916, total of \$212,999 appropriated for Museum maintenance. Details of plans for Southeast Wing and Court Building perfected. Preliminary studies for Intermuseum Pathway prepared.

1916 July 27—Board of Estimate and Apportionment adopted resolution expressing inability of City to appropriate for needed Museum buildings but providing that if private funds are contributed for erection, the acceptance of such should not relieve the City of obligation to continue extension of building in future. First contribution \$100,000 from Dr. James Douglas. Fourth edition of the volume *GROWTH OF THE BUILDING*, issued December 1, included complete plans for the Southeast Wing and Court Building, prepared by Trowbridge and Livingston.

The second and far more signal exception of Trustee coöperation with the City in building arose in the mind of Mr. Harry Payne Whitney, eldest son of William C. Whitney, who had served the Museum as Trustee during the years

1891 to 1904. Father and son had been very closely attached to each other. At the instance of Dr. Leonard C. Sanford, later elected a Trustee in the year 1921, Mr. Harry Payne Whitney resolved to erect a memorial to his father, and early in January, 1929, wrote the following letter to President Osborn:

H. P. WHITNEY
247 Park Avenue
New York

January 10th, 1929.

PROF. HENRY FAIRFIELD OSBORN,
President of the Board of Trustees of
The American Museum of Natural History,
New York City.

DEAR PROFESSOR OSBORN:

I wish to confirm my offer to contribute \$750,000 toward the cost of a wing or section of the American Museum of Natural History which is shown on your diagram as "Section 19." My gift is to be conditioned upon the appropriation of a like amount by the City of New York and upon the understanding that the total of \$1,500,000 thus provided will be sufficient to build and equip the said wing or section in accordance with the plans which I have discussed with your representatives.

I think that a further condition should be that the appropriation by the City must be granted during the year 1929.

With kind regards, I am

Yours sincerely,

HARRY P. WHITNEY.

President Osborn immediately sent the following reply to Mr. Whitney:

January the eighteenth,
Nineteen hundred twenty-nine

MY DEAR MR. WHITNEY:

Last evening I received your letter of January 10th, 1929, confirming your offer to contribute \$750,000 for the cost of a wing or section of the American Museum of Natural History which is shown on my diagram as Section 19; your gift to be conditioned on the appropriation of a like amount from the City of New York upon the understanding that a total of \$1,500,000 will be sufficient to build and equip this Section in accordance with our plans and on the further condition that the further appropriation by the City must be granted during the year 1929.

I can hardly express the pleasure and gratification which your offer has given me; first, because of the extremely friendly relations which I always enjoyed so much with your father; second, because of my profound appreciation of your most generous gifts to our Bird Section during several years past;

third, because of my very strong feeling that to house and care for these superb collections it would be necessary to greatly increase our exhibition space and provide a building of dignity and beauty wholly devoted to birds immediately opening to the north out of the Roosevelt Memorial Hall.

I shall, accordingly, immediately bring your letter before our Board of Trustees as well as before the City authorities, and I am confident that your gift will be warmly welcomed by our Trustees and that the conditions of your offer will be accepted both by our Trustees and by the City, although of course I cannot pledge the action of the latter.

Your offer comes at a most favorable moment because after years of very hard work, construction of the Roosevelt Memorial and adjoining buildings is practically assured. This will enable us to proceed with the construction of the wing, which I suggest shall be called

"The Whitney Hall of Birds"

if this title is agreeable to you, as soon as the plans can be prepared. I believe the amount that you have named will be adequate for the building and the equipment of the Bird Section and for the reception of the collections.

With warm appreciation of the manner in which you have presented this offer, I am

Sincerely yours,

HENRY FAIRFIELD OSBORN,

President.

H. P. WHITNEY, Esq.

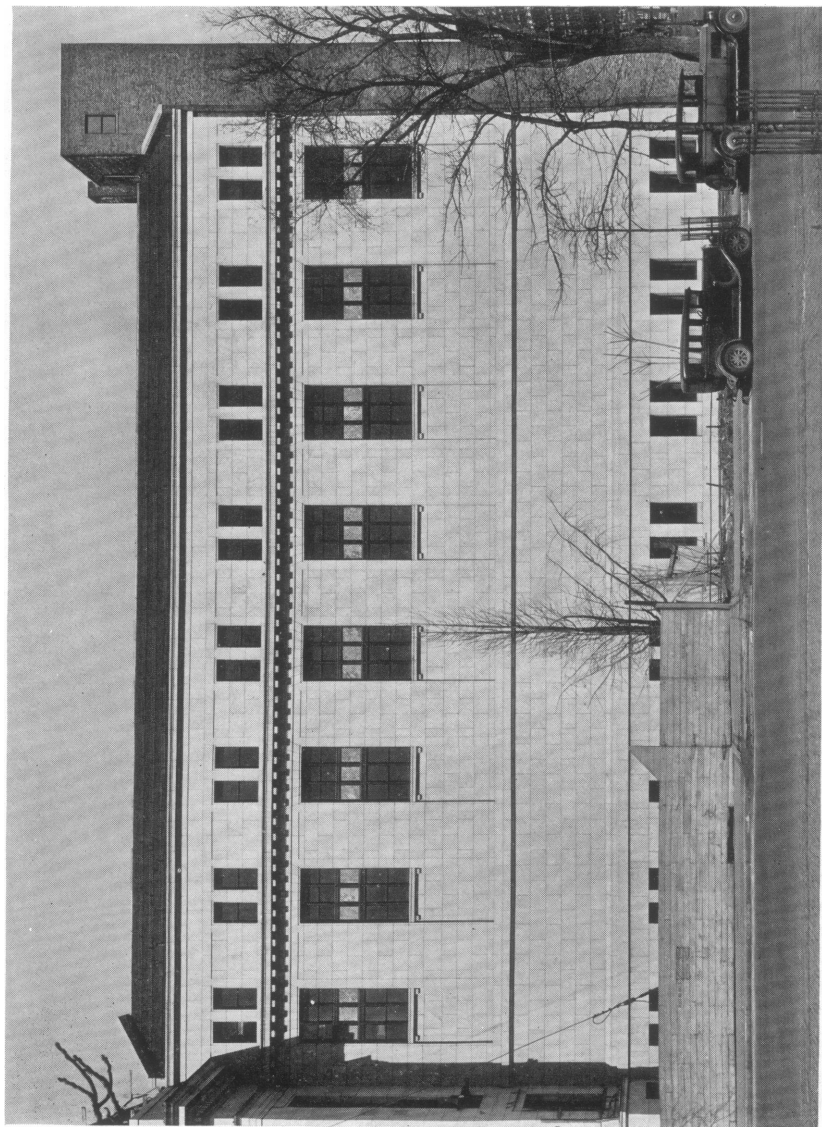
It happened that in previous years Mr. William C. Whitney had taken a very warm personal interest in the President's plans for making a unique display of the modern horse, its breeds and varieties, from the draft horse to the trotting horse and the race horse, as well as some of its fossil antecedents which are all to be found within our own country, the mother of the great race of horses. Our members can well imagine the delight with which this magnanimous offer of the younger Mr. Whitney was received.

Negotiations with the City, principally through Comptroller Charles W. Berry, proceeded rapidly, and on March 15, 1929, the following resolution was adopted by the Board of Estimate and Apportionment of the City of New York:

(Cal. No. 323)

RESOLVED, That the Board of Estimate and Apportionment hereby accepts the offer of Mr. Harry Payne Whitney to contribute the sum of \$750,000 towards the cost of construction of Section 19 of the American Museum of Natural History, known as the "South Oceanic Wing," conditioned upon the appropriation of a like amount by The City of New York; and be it further

RESOLVED, That the Secretary be and hereby is directed to notify Mr. Harry Payne Whitney that the Board of Estimate and Apportionment has



South Oceanic (Whitney) Wing, Section 19

Erected through contribution of the late Mr. Harry Payne Whitney, and an appropriation of an equal amount by the City of New York. Mr. Whitney's contribution was given as a memorial to his father, Mr. William Collins Whitney, a former Trustee

appropriated the said sum of \$750,000, in accordance with the terms of his offer, for said purpose; and also to extend to him the sincere appreciation of the Board of Estimate and Apportionment, on behalf of The City of New York, of his generous gift; and be it further

RESOLVED, That a copy of this resolution be transmitted to the Board of Trustees of the American Museum of Natural History.

Meanwhile Messrs. Trowbridge and Livingston, the architects of the Museum, were engaged, in close consultation with Curator Chapman and his staff, to prepare the plans representing the scientific requirements of a building of an entirely unique character, with Dr. Leonard C. Sanford representing the wishes of Mrs. Harry Payne Whitney. To our universal regret Mr. Harry Payne Whitney died on October 26, 1930, and from this time onward it was in the mind and heart of both the President and the Committee on Building and Plans to create a double memorial not only to Mr. William C. Whitney but also to his son. During the year 1929, plans for the Whitney Wing, technically known as the South Oceanic, Section 19, were occupying the entire attention of the Administrative and Scientific Staffs and were under the constant survey of the President as Chairman of the Building and Plans Committee. From the first it was decided to depart from all museum precedent and to shut out daylight from the spacious exhibition halls of Floors II and III, to provide storage space of unusually large capacity, to plan research rooms for visiting ornithologists, to add in the upper story experimental biological rooms for observations and studies of living birds—in brief to design and construct a building of an entirely unique order to embody all that the sixty-year experience of museum construction has taught us, and to look forward to an absolutely ideal center for further advancement of the historic science of ornithology.

With total building funds available of \$1,500,000, the Museum was exceptionally fortunate in entering a period not only of low cost of building and materials but of the opportunity to engage workmen of a very superior class who were only too glad to exert their utmost efforts in carrying out the beautiful original designs with the utmost technical skill and with the finest materials. Consequently the total construction cost of erecting an absolutely faultless building will be

\$960,000.00, leaving the very welcome sum of \$540,000.00 for additional equipment, casing and decoration.

An important modification occurred before the final steps in the construction of the building, due to the third superb gift from the Whitney family, namely, the presentation to the American Museum of the Rothschild Collection of Birds. This acquisition had of course not been foreseen when the building was planned, but fortunately the offer came in time to enable us to make structural changes in the third floor, so that the Rothschild Collection might be adequately housed. We may now turn from the story of the Whitney building to that of the acquisition of the Rothschild Collection and to a summary of its outstanding features.

THE ROTHSCHILD COLLECTION OF BIRDS

The famous museum at Tring, in Hertfordshire, dates only from the year 1889, and yet it long since attained the rank of one of the leading institutions of its kind. The development of so notable a museum during a single lifetime is a great monument to the zeal and munificence of Lord Rothschild and to the wisdom with which he chose his collaborators. Of high importance among the treasures of Tring was the world-famous collection of birds. In the November-December issue of *Natural History*, Dr. Robert Cushman Murphy has written as follows regarding the collection:

"Lord Rothschild has always had a particular interest in rare and disappearing organisms, and he has shown keen foresight in acquiring specimens from islands and other regions in which modern changes are likely to bring about extinction. This explains the presence in the Tring Collection of the irreplaceable series of birds from the Galapagos, Hawaii, and other insular universes where, during millions of years, the course of evolution has gone on without extraneous disturbance, and with strange, ingrown results. Equally important among his ideals has been the systematic exploration of ornithologically little known countries. To cite even large numbers of scattered localities to which his representatives have penetrated would, however, be misleading, for above all else Tring has built up a World Collection in the fullest sense."¹

In October, 1931, Lord Rothschild wrote Dr. Leonard C. Sanford saying that he had reluctantly determined to offer for sale the greater part of the Tring Collection of birds. Dr.

¹*Natural History*, Nov.-Dec., 1932, Vol. XXXII, No. 6, pp. 497, 498, 500.

Sanford then laid the unique opportunity before the members of the Whitney family, and there followed a rapid sequence of ornithological, legal, financial, and practical negotiations between Lord Rothschild, Dr. Sanford, Director George H. Sherwood, Curator Robert Cushman Murphy, and our Counsel, Mr. Lewis L. Delafield, throughout which the interests of Mrs. Harry Payne Whitney and of her son and daughters were to be carefully guarded. At the end of January, 1932, Doctors Sanford and Murphy sailed for England. On February 13 in the offices of Morgan Grenfell Company, London, ownership of the great treasure was formally transferred. The agreement called for delivery to the American Museum of all birds belonging to Lord Rothschild, with the exception of the mounted collection on exhibition in the halls of his museum, the series of struthious or ostrich-like birds, and a small number of duplicate specimens, representing various families, which he wished to retain chiefly because the species were not otherwise represented in Great Britain. The extremely important work of cataloguing, packing, and shipping the collection was then begun at once under the direction of Dr. Murphy. On March 9, at a joint annual meeting of the British Ornithologists' Union and the British Ornithologists' Club, formal announcement of the sale was made on behalf of Lord Rothschild by Dr. Jordan, Director of the Tring Museum.

Dr. Murphy concludes his delightful narrative in *Natural History* with the following summary of the facts:

With the efficient help of Mr. Young, veteran superintendent of the Tring Museum, and of other members of the force, we set to work to list every specimen of every form, family by family, and to pack them in marked and numbered cartons. The larger birds were wrapped in newspapers, mostly of wartime vintage, and the only lost seconds during weeks of busy days occurred when one or the other of my English helpers was caught and held spellbound by a headline in the *Times* which awakened, perhaps, some burning memory of Flanders. When British sheets gave out, a supply of indecipherable Dutch newspapers, located in the storeroom, served still better to speed up the work. The small birds were packed chiefly between layers of cotton in pasteboard boxes, eight of which fitted within wooden cases with dimensions of 30 by 30 by 60 inches. At the end of four months, when 185 such cases had been filled, we learned that the part of the Tring Collection acquired by the American Museum numbered just under 280,000 specimens.

The list of birds, and the genus index prepared by Mrs. Murphy, who

joined me in England at the beginning of April, were typed, as rapidly as they were finished in manuscript, by Miss Thomas, librarian of the Tring Museum. Upon this volume of 740 foolscap pages we pin our hopes for a successful reincarnation of the specimens in the Whitney Wing.

The boxes were shipped from London Docks to New York in six consignments. All reached our hands without dent or dampening, although the destruction by fire of a Cunard pier on the Hudson, shortly after the removal of one lot which contained half the wealth of the Indies, gave us a moment of retrospective trepidation.

The manner in which the Tring material supplements the former bird collection of the American Museum is remarkable. We already had an excellent representation of North and South American birds, of the fauna of forested Africa (i.e., the Congo basin), of Polynesia and certain other island and oceanic areas. The generous interest of Mr. Whitney, in particular, made it possible for us to obtain during his lifetime many thousands of specimens from the South Sea Islands. To house and exhibit these birds he, in conjunction with the City of New York, provided for the construction of the Whitney Wing which, in turn, led to the gift of the Tring Collection. Through the latter acquisition we add the birds of Europe, Asia, and North Africa, those of East and South Africa, the Indo-Malayan and Melanesian districts, Australia and New Zealand, together with a large proportion of extinct species from many localities, not to mention the very valuable hybrids and aberrant forms of numerous families, in which Lord Rothschild has always taken a special interest.

The Tring Collection contains a goodly number of genera not, up to the present, represented in the American Museum; it gives us also a relative wealth of species known only from unique specimens. Types, meaning the particular skins upon which the original description of species or races are based, and which therefore serve as the standard of comparison, number in the neighborhood of three thousand. The total count of genera, as listed in the manuscript catalogue, runs to about twenty-five hundred but, since Hartert has always given generic names a comprehensive application, the actual representation of genera, as they have been described and used in ornithological literature, is much larger.

To list the rarities would require more space than the meaning would justify. A great auk, two Labrador ducks, and a series of passenger pigeons and Guadalupe caracaras include names familiar to many American readers, though these are far less significant than the world's premier aggregation of birds of paradise, including all but four or five of the known species as well as several extraordinary hybrid forms. No less marvelous are the collections of Hawaiian honey-creepers and Old World sunbirds, and the six thousand American humming birds.

Aside from the rarities, historic specimens, and birds of gorgeous plumage, all of which have a special appeal, the greatest resource that the Tring Collection offers to ornithology in America lies in the satisfying series of entire Old World families and lesser groups. It will now be possible for the American student to examine nearly all the known forms of parrots, pigeons, rails, babblers, and other large families, without crossing the Atlantic. Likewise, it will become peculiarly illuminating, even to the best informed of our ornithologists,

to be able to compare readily their series of familiar North American races with the representative forms of Europe and northern Asia in equally adequate series. Doctor Hartert, author of *Die Vögel der paläarktischen Fauna*—a bible of modern ornithological science—based his comprehensive studies largely upon the Tring Collection, and naturally made sustained efforts to have the birds of this huge field amply represented in the museum to which he gave the best years of his life. It imparts a new meaning to the subjects of evolution and geographical distribution to be able to see upon one laboratory table the evidence that our own very species of nuthatches, horned larks, titmice, finches, etc., occur also in parts of Europe and Asia, in the North African deserts or upon Mediterranean islands. Such facts give an emphatic conception of the oneness of the northern hemisphere. Moreover, when faced with knotty taxonomic problems, we shall far less frequently have to bite our nails and wish that we might be in the British or Berlin Museums in order to examine certain birds from the Himalayas, or Crete, or Mt. Olympus.

It must not be forgotten that as we in America have gained, so European ornithologists have lost the use of an important tool of their craft. The hospitality and liberality of Tring have become proverbial, and loans of specimens have always been made far more freely than from any national museum in the world. Neither can I forget the friendship of my British colleagues who, while witnessing a deprivation which could hardly fail to fill them with dismay, expressed no criticism of the American Museum or its agent, but, on the contrary, by acts and by spoken and written word did everything possible to make my visit in England memorable and delightful. It is the earnest hope of the American Museum that the effect of the removal of the Rothschild Collection from Europe may be ameliorated in so far as possible. Not only are facilities in preparation for guest-workers in New York but the donors have also provided, for a limited time, a fund in the nature of a fellowship, to be used toward defraying the expenses of duly accredited students from abroad.

ROOSEVELT MEMORIAL OPENING, OCTOBER 27, 1933

This is the fourteenth year of the New York State Roosevelt Memorial movement, started immediately after the death of Theodore Roosevelt, January 6, 1919. Two leading American newspapers, the *World* and the *Times*, independently advocated a memorial connected with the Museum of Natural History. The purpose and spirit of the Memorial were expressed by Chairman Henry Fairfield Osborn in the following paragraphs from the prospectus of the architectural competition of February, 1925:

"This Memorial is intended to express Roosevelt's life as a nature lover, naturalist, explorer and author of works of natural history, all of which is to be expressed in the building both by its exterior and interior treatment. The design should symbolize the scientific, educational, outdoor and explorational aspects of Theodore Roosevelt's life rather than the political and literary.

"It should be consistent with the dignity of the Empire State and reflect the national and international influence of Theodore Roosevelt. It should be harmonious with and embody the ideals, purposes and plans of the American Museum of Natural History to which Theodore Roosevelt devoted the early and closing years of his life. It should provide not only for visitors from the City and the State but should be so planned that it would also become an integral part of the school and public educational system of the State and likewise form an extension to the educational work of the American Museum of Natural History in the City and in the State."

The project of erecting a memorial in connection with the American Museum of Natural History was successively approved by Mayor Hylan, Comptroller Craig, Governor Smith, Judge Morgan J. O'Brien and by the Democratic leader of the time, Charles P. Murphy. Governor Smith said that there was little chance for the memorial to be erected unless Professor Osborn consented to take the Chairmanship. With this suggestion Professor Osborn reluctantly complied and entered immediately upon the task which he hopefully believed would come to completion within the next three or four years, but which has been beset with innumerable difficulties of every kind, financial, artistic and architectural.

At last we may look forward confidently to October 27, 1933, the seventy-fifth anniversary of the birthday of Theodore Roosevelt, as the date of national and international dedication and celebration.

EASTERLY APPROACHES TO THE MEMORIAL.—The first five years, 1919-1924, were occupied by a commission of six members headed by Chairman Osborn and representatives of various parts of the State of New York, in considering both the character and the location of the Memorial. Nine years ago, March 18, 1924, the Commission divided evenly between the location of the memorial in Albany and in New York. Albany was vigorously supported by all the up-state people, and it appeared possible that so far as the American Museum was concerned five years had been lost after a tremendous effort. At this critical time Chairman Osborn brought the matter to the attention of the Board of Estimate and Apportionment of the City of New York, also to the Board of Aldermen, calling attention to the fact that New York should act with great energy and promptness to secure the Memorial. He had previously (April, 1922)

distributed among all members of the Board of Estimate copies of a plan for Easterly Approaches across Central Park as well as the ground site on the axis of Seventy-ninth Street and Central Park West.

A Mayor's committee of six was appointed to carry this tempting offer to Albany and at a public legislative hearing Chairman Osborn made the following statement:

"In the first place, the site in the City of New York is a noble one. . . . The approach to it is a broad avenue from 80th Street, east, to 79th Street, west. 80th Street is not directly opposite the center of the Museum which is on Central Park West. You have to cross Central Park and turn slightly south."

At this point Chairman Downing inquired:

"That means from the east side of Central Park across Central Park?"

Chairman Osborn replied: "Yes, across Central Park."

At the above public hearing the City of New York conveyed a pledge that it would provide Easterly Approaches *or promenade for visitors on foot*, across Central Park, a matter of vital importance to the popular functioning of the Roosevelt Memorial. On this point Vice-Chairman Kiernan testified, on October 21, 1930, before the Board of Estimate of the City of New York on the public legislative hearing of March 18, 1924, as follows:

"I clearly remember we raised the issue that a building of the type proposed for a memorial to Theodore Roosevelt needed and properly should have a park setting in order to make a dignified and fitting memorial and we urged that the proposed location adjoining the American Museum did not represent such a setting and that the Memorial would be so merged in the Museum that the memorial qualities would be lost. Then Professor Osborn produced his masterpiece of a magnificent promenade connecting the Metropolitan Museum and the Roosevelt Memorial and the American Museum of Natural History. All the New York legislators endorsed this and it answered all our objections. The bill was passed by the Legislature and signed by Governor Smith.

New York City has many wonderful buildings but it has two institutions which are probably better known and appreciated by the rest of the world than they are by the City of New York. Here you are accustomed to them and do not realize their great value. One is the Metropolitan Museum with its treasures of art which are known throughout the world; the other is the American Museum of Natural History. Here the spoils of the world insofar as they relate to natural history have been brought together within its walls. You have many institutions of a local character but these two institutions are of world-wide knowledge and importance. Now I submit it is the part of a wise city philosophy to do everything possible to show to the world that we

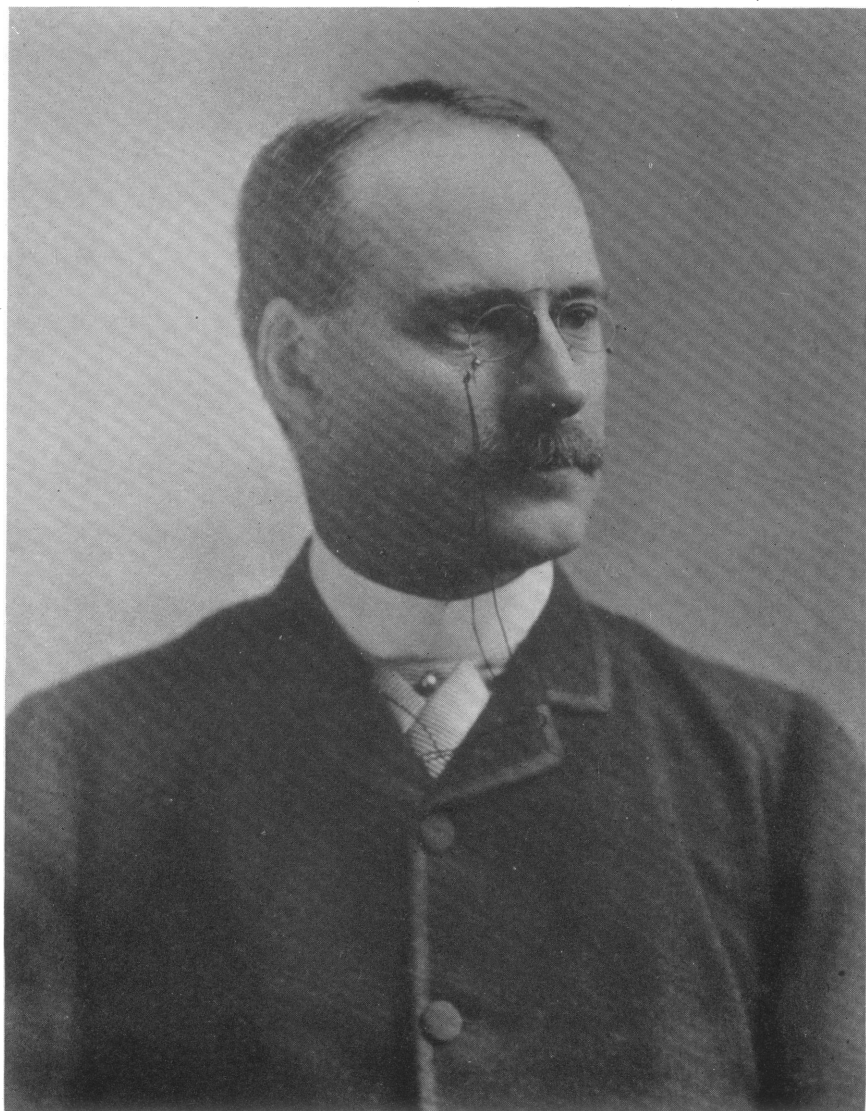
have a proper appreciation of the far flung relationships of these two great world institutions.

Now, just one more thought. I am not going to attempt to discuss the technical details because I cannot do them justice but I did go up and look at this part of the park and, Mr. Mayor, in my opinion it is the ugliest part of the park. It should be beautified and in this process of beautifying it should be made to serve and adorn these magnificent public buildings. This project was the important factor in giving this great Memorial to the City of New York. I do not know whether anyone had the authority to pledge it, but I do know that the New York members of the Legislature did not question it at the time and I do know that it was the effective answer to the opposition of Albany at that time. Now, as an Albanian I ask that my native City of New York make good."

The strenuous effort to carry out this pledge and to fulfil the grand educational purpose of making this noble memorial and the contiguous American Museum buildings accessible to the center of population on the east side of the City has been beset with objections and difficulties which alone prove that nothing can be accomplished in the defeatist spirit. These difficulties first arose in 1911, twenty-two years ago, and despite incessant effort of every subsequent year, continued practically up to April, 1932, when the Board of Estimate and Apportionment rescinded an appropriation of \$100,000 for the preparation of plans for the approaches to the west driveway of Central Park.

Only recently has a kindly Providence intervened as the only truly beneficent result of the financial depression, by suspending the execution of an opposing plan for the old Croton reservoir space which would have practically shut off both the Metropolitan and American Museums from mutual access and barred the Easterly Approaches across Central Park for an indefinite period of time.

In this final crisis the eminent services of Frederick Law Olmsted, son of the distinguished original designer of Central Park, were enlisted on January 2, 1932, with the prior approval of Governor Franklin D. Roosevelt and of Frederick Stuart Greene, State Superintendent of Public Works. After a preliminary survey of the entire east and west space, Olmsted Brothers have completed an engineering survey of the area west of the west Central Park driveway approaching the Memorial. On August 2, Governor Roosevelt gave his initial approval to a further appropriation of \$1,200, making



William Collins Whitney
Photograph taken when he was Secretary of the Navy under President Cleveland

a total of \$2,800 for a preliminary study by Olmsted Brothers of the Easterly Approaches as a whole. Of this amount, \$1,466.47 has been expended, leaving a balance of \$1,333.53.

Meanwhile, on the occasion of the laying of the cornerstone on October 27, 1931, Governor Roosevelt expressed his opinion that the Easterly Approaches are an absolutely essential part of the State Memorial movement. Joseph V. McKee, President of the Board of Aldermen, also eloquently expressed the purpose of the City of New York to render the Roosevelt Memorial and the American Museum accessible to the great population of the east side of our city. The Governor's address is as follows:

"Of all the public events in which, as Governor, I have been privileged to participate during the past three years, I am very certain that this laying of the cornerstone of the Roosevelt Memorial thrills and interests me the most. It is in part because of my long association with the Museum. My memory goes back to a day 37 years ago, when a small boy of 12 marched proudly up the steps of the old brick building which formed the nucleus of what has become the great American Museum of Natural History of today. It was not long after this that Theodore Roosevelt, hearing that my Grandfather had given me a life membership in the Museum, said to me, 'Franklin, you can learn more about nature and life in the Museum than in all the books and schools in the world.'

"I do not suppose that there is any great memorial monument more wholly appropriate than this. Theodore Roosevelt's greatest appeal was always to young people. Fundamentally he was entirely right in his emphasis that the future of the state, of the nation and of the race, depended on straight thinking and right acting on the part of the rising generation. He realized well that in every sphere of life from labor and business, and science and the professions, all the way through to government itself, a mere ordering from older people at the top, and a mere blind obedience by younger people at the bottom, would result in stagnation and in eventual decline of civilization. He realized that young people must provide not only enthusiasm and courage, but that a continuing of progress calls for their actual knowledge of and participation in the daily tasks of mankind.

"To me today, the laying of this cornerstone represents not alone Theodore Roosevelt's great interest in the Museum, nor alone his devotion to the cause of well rounded education, nor alone the tribute which the people of his State erect to his memory,—it is more than any or all of these. It represents rather the clear call which Theodore Roosevelt would make were he alive today, to the people of this whole nation, and especially to the young people of this whole nation, for their active participation in the solution of pressing problems which affect our national life and our very national existence. Were he with us today, how much he would bring of courage, of enthusiasm, and even of daring to the solving of these problems and the mitigation of the sufferings of this confused and confusing world.

"Through many generations to come, the Roosevelt Memorial erected in loving tribute by the people of his state, will inspire old and young, but especially, I hope, the young, to give to Theodore Roosevelt another tribute—the tribute of a greater interest in and feeling for, their fellow-men—a greater taking part in the tasks and problems of their government, a deeper understanding of the fundamentals of right and wrong, and a higher purpose in lending their help.

"When soon, from a great plaza in Central Park, we look up to this veritable arch of triumph, and to the heroic figure of Theodore Roosevelt at its front, let us say in our hearts, 'Hail, Leader and Friend, we greet you, we about to live!'"

FINANCIAL HISTORY.—The financial history of the Roosevelt Memorial has been no less beset with difficulties, at times apparently insurmountable and demanding absolute faith in the ultimate completion of this great educational enterprise. The initial halt was in the difficulty in securing from the Legislature, May 5, 1924, the original appropriation of \$250,000. The second halt came at the close of the year 1928 when the State of New York first began to feel the coming financial depression; this second crisis was surmounted January 15, 1929, at a conference in the Executive Chamber presided over by Governor Roosevelt and attended by Senators Knight and Hewitt, Speaker McGinnies and Eberly Hutchinson,¹ Chairman of the Ways and Means Committee of the Assembly, who was very influential in securing the coöperation of the leaders of the Legislature with the Governor. Chairman Osborn recited to the Governor and the leaders of the Legislature the actions of the Board of Estimate of the City of New York from the month of November, 1927, until the month of January, 1928, when Mayor Walker recommended to the Board of Estimate and Apportionment the appropriations for two buildings on the west of the Roosevelt Memorial, namely, the African Hall and the Power and Service Building, buildings absolutely essential to the operation of the Memorial, to be constructed concurrently with the New York State Roosevelt Memorial Building.

Chairman Osborn pointed out that the Board of Estimate on January 8, 1928, approved the necessary appropriations. The final step in coöperation was taken when the

¹Harvard University, Class of 1895.

Board of Estimate approved the appropriation of \$750,000. for the City half of the Whitney Memorial wing:

For the construction of the African Hall (Section 13).....	\$1,150,000
For the construction of the Power and Service Building (Section 17).....	1,500,000
Construction of the South Oceanic Section in addition to gift of Harry Payne Whitney.....	750,000
<hr/>	
Total appropriations from the City of New York for the buildings contiguous and essential to the Roosevelt Memorial.	\$3,400,000

In brief, the action of the City of New York in appropriating \$3,400,000 between the years 1928 and 1929 calls for the concurrent completion and dedication of the Roosevelt Memorial by the State.

In the above conference of January 15, 1929, with Governor Roosevelt, an informal agreement was reached to recommend to the Legislature an appropriation of \$1,000,000 for use during the year 1929 and \$2,000,000 during 1930; also \$250,000 in 1931 if necessary. Meanwhile in 1930 the cost was increased by legislative action to \$3,500,000. In 1932 the further sum of \$125,000 was allotted, and to conclude this financial history there should be mentioned the most recent appropriation of \$196,000 by the Legislature of 1933 on the recommendation of Governor Lehman bringing the total appropriations by the State to date for the Memorial up to \$3,671,000.

These total appropriations provide for the execution of all of the original Roosevelt Memorial design excepting the bronze statuary on either side of the entrance archway (estimated cost \$45,000), the four groups representing the pre-history and early historic episodes of New York State (estimated cost \$60,000), and casing (estimated cost \$35,000). Full details of the fourteen-year history of the New York State Roosevelt Memorial are to be found in the Eighth Annual Report of the Board of Trustees of the New York State Roosevelt Memorial.¹ The following excerpt from this Report gives a brief description of the design:

The façade of the building is being executed in Milford pink granite. A paved terrace, 350 feet in length, will be flanked at both ends by pedestals

¹Eighth Annual Report of the Board of Trustees of the New York State Roosevelt Memorial, 1932, Legislative Document (1933), No. 71, Albany, 1933.

carved in bas relief. A vehicular driveway will adjoin this terrace, passing about the rear and will lead to the first floor entrance. In the center of the terrace, immediately in front of the great entrance arch, upon a polished pedestal, will be an equestrian statue of Roosevelt with two accompanying figures on foot, one an American Indian and the other a native African representing his gun bearers and suggestive of Roosevelt's interest in the original peoples of these widely separated countries. This group will rise to a height of thirty feet above the sidewalk. It is the work of James E. Fraser, the well-known sculptor, who will also design and execute the four statues to surmount the columns on front of the façade. The arch itself is a coffered granite vault, and in the background is a mammoth screen composed of bronze, glass and marble, by means of which direct lighting of the interior hall is obtained.

Passing through this entrance, one steps into the Memorial Hall itself, which exclusive of recesses, will be sixty-seven feet wide by 120 feet in length. The floor will be richly patterned in marble-mosaic, the walls, to a height of nine feet, being of dark green marble surmounted by mellowed limestone extending to an elaborate Corinthian cornice and culminated by an octagonal coffered barrel vault, reaching to a height of 100 feet above the floor. At either end of this vaulted ceiling the walls are penetrated by large circular-headed windows which will furnish the hall with ample daylight. In order to avoid the deteriorating effects of direct daylight on murals, the architect has skillfully designed recesses in the walls at three sides of the room. The vaulted ceiling will be supported by marble columns fifty feet high, crowned with Corinthian capitals and executed in antique red marble. Spaces have been reserved within the Memorial for quotations from Roosevelt's writings and sayings, arranged under four headings as follows:

NATURE

MANHOOD

YOUTH

THE STATE

In preparation of the plans, the Chairman in coöperation with John Russell Pope and State Architect Haugaard, modified the original designs of the interior of the Memorial and made numerous changes on every floor level in order to still better provide for the care and comfort of the public visiting this educational Memorial of the State of New York, and likewise to give ready access to the great exhibition halls of the American Museum opening from the Memorial on the north, south and west.

The Chief Engineer of the Board of Transportation in charge of the new Eighth Avenue subway coöperated with the Trustees by modifying the original station plans at 79th Street to provide a direct means of access to and from the Memorial. Considering all of these important details, and the time and labor involved, it would be impossible to convey to the readers of this report the same impression that may be gained by reading the history of the entire progress of the work.

COMPLETION OF THE BUILDING PROGRAM

The year 1932 accordingly brings nearly to a close the great building program of the present twenty-five year administration, including seven building sections as follows:

ERECTED BY THE CITY OF NEW YORK:—

Section 9, South Asiatic, completed in 1924, total cost {	\$1,500,000.00
Section 10, Oceanic, completed in 1924, total cost }	
Section 11, School Service, completed in 1926, total cost..	900,000.00
Section 13, African Hall, completed in 1932, total cost...	1,150,000.00
Section 17, Power and Service Building, completed in 1932,	
total cost.....	1,500,000.00
¹ Section 19, South Oceanic, completed in 1933, total cost	1,500,000.00
	<hr/>
	\$6,550,000.00

ERECTED BY THE STATE OF NEW YORK:—

² Section 12, Roosevelt Memorial, completed in 1933, total cost.....	3,671,000.00
	<hr/>

Grand total for building..... \$10,221,000.00

The outstanding and most gratifying feature of our entire building history is the coöperation of the State with the City in the construction of this great building group of seven new sections of which the combined cubic area will be 10,698,763 feet and the combined floor area will be 475,398 square feet, totaling in the entire Museum in the year 1933 a combined cubic area of 21,257,235 feet and a combined floor area of 966,814 square feet.

The series of openings will begin in the autumn of 1933 with the dedication of the Roosevelt Memorial to be followed by the successive openings of two of the exhibition halls of the African Wing and of the Whitney South Oceanic Wing. On this noble group of exhibition halls, including the School Service Section, the City will have expended \$5,800,000.00, exclusive of the contribution of \$750,000.00 by Mr. Harry Payne Whitney, while the State will have expended \$3,671,000.00.

These buildings will give to the great school population of our State, including the youth under the State Department of Education and the Department of Education of the City of New York, the largest and the most complete and inspiring equipment in the field of science education afforded by any state in the world.

¹Mr. Harry Payne Whitney contributed one-half of the cost of this building, namely, \$750,000.00.

²The Trustees will recommend to the State that financial provision for the parts of the original design omitted in the budget of 1933 be included in the budget of 1934.

THE NEW CONQUEST OF CENTRAL ASIA

The work of the Central Asiatic Expedition, under the leadership of Roy Chapman Andrews, began in the year 1921 with the cordial coöperation of the scientists of China, and the astonishing discoveries in geology, palaeontology and zoology constitute one of the most important scientific advances of the twentieth century. They not only aroused interest throughout the entire world but stimulated scientific endeavor in China. The Expedition was so carefully organized and completely equipped that it could take advantage of every opportunity presented by a vast region which was scientifically almost unknown. Its discoveries have revealed a new chapter in the history of the earth. Not only have the scientific results been of almost immeasurable importance, but the expedition has brought to The American Museum of Natural History great collections which enrich our halls and furnish material for years of research. Duplicates of portions of these collections will go to China.

It is most unfortunate that when the Nationalist party assumed control of a large part of China in 1928 the movement was accompanied by an outburst of anti-foreign feeling. When the Expedition returned to Kalgan that year, an unofficial body known as the Cultural Society of Peking directed the Governor of Chahar Province to confiscate its collections. The Society then proceeded to inflame the public by publishing disparaging and untruthful articles about the Expedition, stating that it had been "searching for oil and minerals," that its members were "spies against the Chinese Government" and were "stealing Chinese priceless treasures." The Expedition's collections were released after six weeks' negotiations, but from that time on, diplomatic arrangements with the Chinese for the continuance of the Expedition became increasingly difficult. In spite of the efforts of President Osborn, Secretary of State Stimson and Leader Roy Chapman Andrews, it was possible to make arrangements for only one more expedition, namely, in the year 1930. Eventually the opposition developed to such formidable proportions that it was considered not worth while to spend further time and money in attempting to

combat such obstruction. Doctor Andrews, therefore, was instructed to close the headquarters of the Expedition in Peking and open negotiations with the new government of Manchoukuo. These officials assured him of their great appreciation of the work of the Expedition and welcomed the continuance of its investigations, using their territory as a base. Beginning work from this region, however, must be delayed until the disturbed political conditions have been adjusted so that reasonable safety can be assured.

During the period of field inactivity, the members of the Expedition's scientific staff and other research workers have been active in studying and publishing the collections and compiling the geographic data and maps. Doctor Andrews assured the President and Trustees at the time he originally proposed the Expeditions that there would be no deficit in the field work and that the publications would be issued promptly. In order to fulfil this promise a certain sum was set aside each year from the Expedition's funds to carry on publication. Scientific papers began to be issued at the end of the first year's field work, and a steady flow of publications has continued throughout the ten years of the Expedition. Although the field work has only just been ended, 114 papers of 1,757 pages, embodying important results of the Expedition, have been issued. Three final volumes, Numbers I, II and IV, beautifully issued by the press of G. P. Putnam's Sons, in quarto size, have been published. The splendid volumes in the series entitled "Natural History of Central Asia," already published, are as follows:

1927, Volume II, The "Geology of Mongolia," by Charles P. Berkey and Frederick K. Morris, pages 1-475.

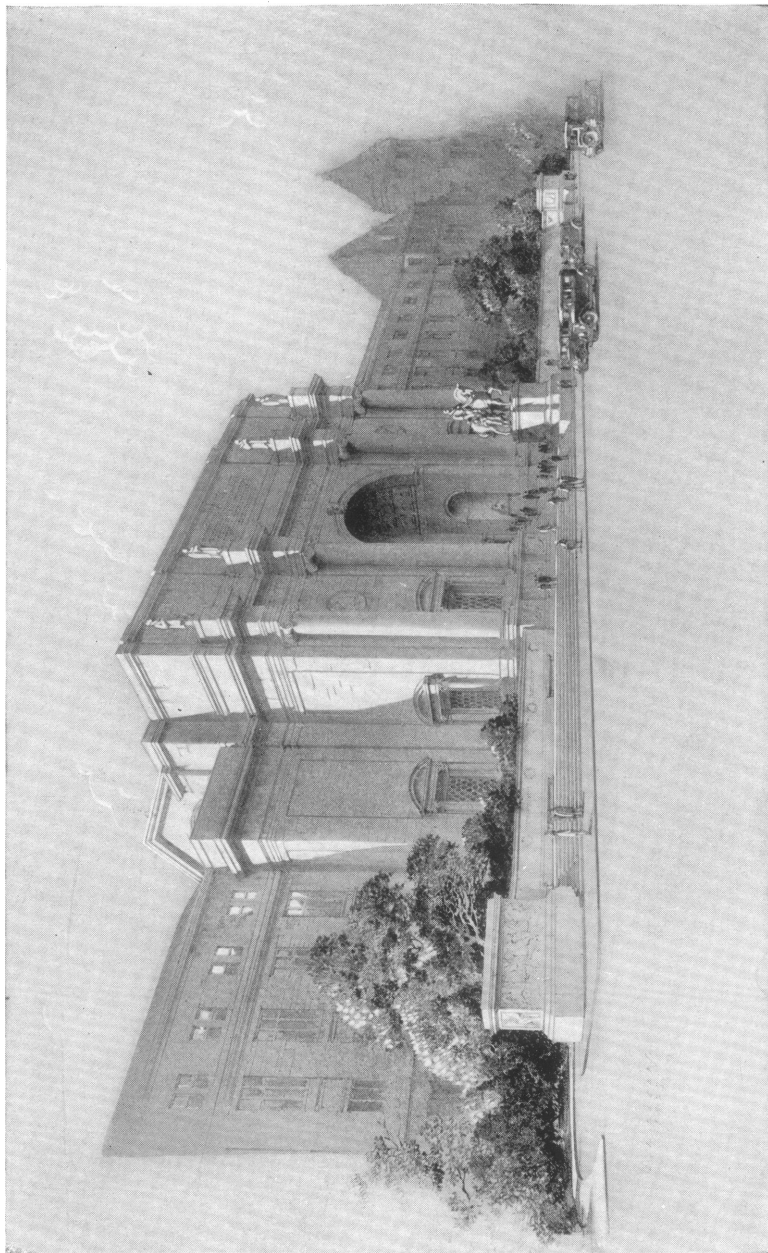
1931, Volume IV, The "Permian of Mongolia," by Amadeus W. Grabau, pages 1-665.

1932, Volume I, "The New Conquest of Central Asia," by Roy Chapman Andrews, pages 1-678.

The above volumes constitute a series of their own with no free list. At the \$10 sale price, they have been acquired by institutions in various parts of the world and are now serving their great purpose of revealing the earth history and the

life story of a vast region hitherto practically unknown to science. Altogether they represent the most important addition to the geologic and palaeontologic history of the earth of the twentieth century. A fourth final volume, consisting of maps and a review of all the topographical work in Asia by the Russians and other nationalities, will come from the press early in 1933.

The latest publication, Volume I, entitled "The New Conquest of Central Asia," was published on December 29, 1932. The author, Doctor Roy Chapman Andrews, worked for two years upon the book. The title "The New Conquest of Central Asia" was very carefully chosen to express an actual scientific triumph over a hitherto entirely unknown region of the world. This was once the reptilian, mammalian and possibly human life center of the entire northern hemisphere, but is now the most barren, uninhabitable and untenanted land area of our planet, with the exception of the central portion of the Desert of Sahara. The word "conquest" is particularly appropriate, for the leader and his intrepid party were forced to conquer physical difficulties of every kind, extremes of heat and cold, sand storms and blizzards, bandits and political difficulties. The volume is a narrative of the entire series of the Central Asiatic Expeditions and also gives in popular language and readable form the most important discoveries in every branch of science represented by the Expedition. Moreover, Doctor Andrews and Doctor Walter Granger, second in command, have put into the book all the information about Mongolia and its inhabitants that they have acquired during their long experience in this "land of the middle ages." It will thus act as a reference book on Mongolia for many years to come. The entire series of final reports will comprise twelve volumes. Those on mammals, reptiles, fishes and a second volume on geology are well under way and will be issued in the not distant future.



The New East Façade of the American Museum
The New York State Roosevelt Memorial
Designed by John Russell Pope. Erected by the State of New York

TWENTY-FIVE YEAR FINANCIAL POLICY OF THE AMERICAN MUSEUM

Up to the year 1904 when the late J. Pierpont Morgan succeeded Henry G. Marquand as President of the Metropolitan Museum of Art, Mr. Morgan was the mainstay not only of the investment policies but also of the larger financial policies of our Museum; he not only supervised our investments but strongly backed President Jesup in the very difficult task of financing the Museum as a whole, by soliciting contributions from Trustees and by his own example in personal contributions which surpassed those of any other Trustee. When Mr. Henry P. Davison was elected Treasurer in 1916, Mr. Davison devised the present plan of a two-fold check on our investments, namely, the selection of an advisory committee to act under the direction of the Finance Committee in the matter of investment. This system has worked extremely well.

In January, 1908, when the present writer was invited to succeed President Jesup as head of the Museum, Mr. Morgan consented not only to retain the Vice-Presidency of the Museum but the Chairmanship of the Finance Committee. Earlier, in 1906, when the present writer was called to the Secretaryship of the Smithsonian Institution, Mr. Morgan assured him that if he remained at the American Museum he would have the backing of the entire Board; this promise has certainly been amply fulfilled in the splendid financial support which the Trustees have given the President during the past twenty-five years.

From the above sequence of administrative events, the *investment policy* has been entirely assumed by the Treasurer and the Finance Committee with admirable results. During the past fifteen years the *financial policy* both of raising funds and of increasing endowment has fallen chiefly on the President as leader, with the coöperation of a number of Trustees. Therefore it seems fitting in this report to summarize the results of the President's financial policy with our Trustees and members, with the City of New York, and with the State of New York; this policy has been a very bold and constructive one, based, like that of Morris K. Jesup and J. Pierpont Morgan, on absolute confidence in the assured

future of the Museum. The twenty-five year growth is shown in the opposite page, which has been prepared by Bursar Frederick H. Smyth.

TOTAL FINANCIAL CONTRIBUTIONS THROUGH TRUSTEES:

1908-1932	Total income from endowment.....	\$9,525,245.99
1908-1932	Total contributions of Trustees.....	2,202,865.87
1908-1932	Total contributions of members.....	1,991,975.33
1908-1932	Total membership fees.....	1,079,091.50
1908-1932	Total sale of publications.....	257,748.73
1908-1932	Income from other sources.....	458,800.09
Grand total contributions to the Museum during the twenty-five year period.....		\$15,515,727.51
Average annual contributions of the twenty-five year period.....		\$620,629.10

TOTAL MAINTENANCE CONTRIBUTIONS THROUGH THE CITY OF NEW YORK:

1908-1932	Total cost of building, maintenance and opera- tion.....	\$7,678,176.47
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The total contributions through the Trustees, namely, \$15,515,727.51, are made up only of figures which pass through the Treasurer's office. They do not include the value of numberless gifts of collections and other exhibits, the figures of which do not pass through the Treasurer's office; these gifts are roughly estimated at two million dollars. Nevertheless the total contributions coming through Trustees, towards collections, explorations, publications, scientific purposes and deficiencies in maintenance, far exceed the total contributions by Taxpayers for maintenance and operation, as shown in the following comparative statement:

1908-1933	Total voluntary contributions through Trustees and members.....	\$15,515,727.51
1908-1932	Total Taxpayers' contributions through the City of New York.....	7,678,176.47
1908-1932	Excess of Trustee over Taxpayers' contributions	\$7,837,551.04

This unprecedented outflow of interest and of generosity on the part of the Trustees and members and of friends of our Museum is, we believe, without parallel in any Museum in the world. At present it appears improbable that America

TWENTY-FIVE YEAR FINANCIAL GROWTH OF THE AMERICAN MUSEUM OF NATURAL HISTORY

Income 1908-1932 **(Other than Endowment and Corporate Stock)** **Contributions of Trustees and Members, not including Gifts**

	Income from Endowment	Contributions of Trustees	Contributions of Members	By Trustees and Members	Membership Fees	Sale of Publications	Other Income	Maintenance City of New York	Grand Total Income
1908	49,905.00	31,142.63	36,700.40	67,843.03	18,325.00	1,776.58	1,261.31	159,930.62	299,041.54
1909	99,851.25	31,700.00	32,818.73	64,518.73	25,745.00	2,056.09	4,657.80	179,999.60	376,828.47
1910	92,832.52	50,225.00	13,408.33	63,633.33	23,215.00	3,887.25	5,649.41	185,757.00	374,974.51
1911	107,050.63	60,314.39	23,991.39	84,305.78	24,000.00	1,857.90	2,724.23	189,757.00	409,695.54
1912	108,239.72	91,975.00	33,144.25	125,119.25	25,265.00	3,714.58	3,071.31	195,000.00	460,409.86
1913	109,935.95	75,186.85	22,893.12	98,079.97	26,535.00	7,313.58	2,466.91	200,000.00	444,331.41
1914	107,860.79	62,993.75	7,964.50	70,958.25	27,220.00	5,287.79	2,599.67	200,000.00	413,926.50
1915	174,586.29	56,500.00	16,350.00	72,850.00	28,690.00	3,814.77	6,312.30	200,000.00	486,253.36
1916	238,762.95	165,627.50	11,497.73	177,125.23	29,344.00	4,698.62	8,716.04	212,999.00	671,645.84
1917	325,968.92	73,508.94	2,515.00	76,023.94	32,084.00	5,309.57	8,713.16	212,700.00	660,799.59
1918	334,993.73	53,350.00	2,350.00	55,700.00	30,508.00	8,967.29	8,180.71	225,000.00	663,349.73
1919	332,520.49	23,350.00	8,005.97	31,355.97	37,665.00	12,798.36	9,630.19	200,000.00	623,970.01
1920	416,612.13	48,650.00	27,964.17	76,614.17	36,326.00	11,639.14	15,612.43	310,983.13	867,787.00
1921	385,130.21	155,724.48	50,585.28	206,309.76	39,619.00	12,561.35	23,891.43	351,547.46	1,019,059.21
1922	450,512.12	90,050.00	55,598.61	145,648.61	43,235.00	10,361.99	37,053.70	344,498.77	1,031,310.19
1923	495,949.35	60,850.78	49,181.00	110,031.78	47,316.00	11,812.53	36,325.13	342,313.36	1,043,748.15
1924	521,560.32	121,533.96	102,130.78	223,664.74	48,095.50	13,946.87	33,420.42	342,320.28	1,183,008.13
1925	497,242.31	123,195.08	90,250.82	213,445.90	53,058.00	14,961.56	35,686.27	350,940.96	1,165,335.00
1926	577,530.06	124,750.00	248,787.03	373,537.03	55,296.00	16,447.74	48,286.62	368,547.22	1,439,644.67
1927	581,645.61	108,264.26	182,950.17	291,214.43	70,036.00	15,023.01	47,056.90	410,121.29	1,415,097.24
1928	634,972.80	166,029.44	194,530.24	360,559.68	75,851.00	17,981.70	25,753.82	452,374.12	1,567,493.12
1929	677,546.45	166,066.41	194,403.82	360,470.23	80,707.00	18,776.76	23,930.62	466,173.45	1,627,604.51
1930	711,443.36	129,313.13	202,744.06	332,057.19	77,676.00	18,101.66	25,427.29	483,145.69	1,647,851.19
1931	750,507.08	66,400.00	93,761.21	160,161.21	67,886.00	21,675.66	21,036.88	547,375.69	1,568,642.52
1932	742,085.95	66,164.27	287,448.72	353,612.99	55,394.00	12,976.38	21,335.54	546,691.83	1,783,096.69
Total	9,525,245.99	2,202,865.87	1,991,975.33	4,194,841.20	1,079,091.50	257,748.73	458,800.09	7,678,176.47	23,193,903.98

will ever witness again a similar period both of unbounded prosperity and of unbounded generosity and public spirit.

This has placed the American Museum in a very strong position in recommending to the City and to the State the appropriation of additional maintenance funds as well as building funds, namely, that private contributions are far in excess of public contributions, that there is no other public educational institution in the world in which the Taxpayers are getting so much for their money and in which the burden of taxation is relatively so light.

TRUSTEE ENDOWMENT OVERBALANCES MUNICIPAL BUILDING

While the total of gifts to the American Museum far exceeds Taxpayers' contributions to maintenance, it should be remembered that the Taxpayers are constantly contributing the interest on City bonds and Corporate Stock in successive appropriations for the building of six new sections which have been added by the City during the past twenty-five years.

In the theory of balanced private and public contributions to the American Museum of Natural History, the growth of Building may accordingly be contrasted with the growth of our Endowment Fund during the last twenty-five years, as follows:

1908-1932 Total additions to the Endowment Funds of the Museum from all sources.....	\$14,082,048.96
1908-1932 Total capital outlay in six Building Sections.	\$7,043,529.69
From the State of New York.....	3,671,000.00
1908-1932 Total City and State.....	\$10,714,529.69

The above figures again show that personal or private gifts and contributions to the American Museum Endowment, as well as the private contributions to building of Harry Payne Whitney and James Douglas in the amount of \$850,000.00, have greatly exceeded the public Taxpayers' contribution. Combining the above figures into a single statement which will make manifest the splendid generosity

and enlightened public interest of the people of our country in our institution, we may present the following totals:

1908-1932	Total contributions of Trustees, members and friends of the Museum for all purposes (including Whitney and Douglas gifts).....	\$30,347,776.47
1908-1932	Total contributions from Taxpayers of the City and of the State for building and maintenance...	18,392,706.16
		<hr/> \$48,740,482.63

The most outstanding and encouraging feature revealed by the above figures is that during the twenty-five year period, 1908-1932, the outflow of personal contributions of all kinds to the American Museum have exceeded, in fact have nearly doubled, the total outflow of Taxpayers' contributions in maintenance, in building and in interest on building expenditures.

The constructive past twenty-five year financial policy of the American Museum more than fulfils both the spirit and the letter of the original Charter and Contract of the year 1869 when the Museum was broadly founded on the reciprocal financial principle of building, maintenance and operation by Taxpayers, balanced by Personal contributions to all collections, exhibitions, and scientific work.

SHARP SEPARATION BETWEEN MAINTENANCE AND SCIENCE

The initial feature of President Osborn's administration was to very sharply distinguish between the thoroughly legal expenditure of city funds on city property only and on city education, and Trustees' funds on Trustees' property only.

By our original contract every scientific specimen in our vast Museum, every exhibition, every book in our libraries is the property of the Trustees. During the last twenty-five year period not only have city funds not been expended on Trustee property but the Trustees have contributed very largely to city operation and maintenance. The recent financial depression through which both the city of New York and the American Museum have been passing has served one very useful purpose, namely, *the sharp separation of legal City expenditure from legal Trustee expenditure.*

When in the autumn of 1932 the budget makers for the City declared that deficiencies in operation and maintenance had to be made up from Trustees' funds or contributions, the matter was brought to a very sharp issue. The Trustees declared that they would no longer contribute to operation and maintenance nor to building, that this was entirely the legal duty of the City of New York. They declared that the unparalleled generosity of Trustees, members and friends of the American Museum should not be taken advantage of any longer. They declared that the maintenance and operation of the American Museum would hereafter be brought strictly within the annual maintenance fund provided by the City, that employees would be dropped from the rolls, that exhibition halls of the Museum would be kept closed to the public, that legal pay days might be restored. It is believed that this strong and resolute attitude of the President and Trustees in this financial crisis will not only be heartily supported by the public at large but will be no less heartily supported by the Mayor, the Comptroller, and other members of the Board of Estimate and Apportionment of the City of New York when they thoroughly understand the spirit and purpose of our original contract and have time to reflect and consider the wholly unparalleled excess of personal gift and contribution to our Museum over expenditures by Taxpayers.

The President would be most ungrateful, moreover, if he failed to make the fullest and most heartfelt acknowledgment of the splendid support which the City of New York has given to the American Museum during the past twenty-five year period, as shown in the maintenance column on page 29 above, the maintenance and operation figures rising from \$159,930.62 in 1908 to \$546,691.83 in 1932, an increase of 243 per cent.

The total contributions by the City to building during the same period have risen from \$4,918,820.94 at the end of President Jesup's administration to \$11,962,350.63 at the end of President Osborn's administration, a contrast more significant because during President Jesup's administration the appropriations were made practically through the State legislature, while under President Osborn's administration they have all been made by the Board of Estimate and Apportionment of the City of New York.

THE REDUCED BUT BALANCED BUDGET OF 1933

Immediately on his return from his voyage around the world, April 29, 1932, the President, in consultation with the Treasurer and the Chairman of the Executive Committee and with Director Sherwood and Bursar Smyth, began the preparation of a balanced budget for the year 1933. The outlook at the beginning was most discouraging. The prospective Trustee income from all sources had fallen in the amount of \$59,208.40.

It was anticipated that the prospective income from the City of New York would fall, and the first announcement from the City was that a ten per cent. reduction on the budget of 1932, namely about \$56,000, would be necessary; a later announcement advised an additional ten per cent. reduction; finally the total reduction City Maintenance figure rose to \$123,294.00. This city reduction figure of \$123,294.00, added to the Trustee reduction figure of \$59,208.40, rendered it necessary to make a cut of \$182,502.40 in the expenditures of the previous year. Six steps proved to be absolutely essential: (1) reduction of total personal salary roll of the Museum in the amount of five per cent.; (2) the suspension of work of every kind not absolutely essential to Museum operation; (3) the elimination of all exploration and field work; (4) the retirement on the Pension Fund of seven employees; (5) the dismissal of thirty-four employees; (6) the stagger closing of exhibition halls. Budget after budget was prepared, and by these drastic measures Chairman Dodge of the Executive Committee was finally enabled to present to the Trustees a balanced budget of \$1,240,221.42 with the Trustees' reserve of \$20,000.00, based on the following reciprocal contributions:

From City funds.....	\$423,397.91
From Trustee funds.....	816,823.51
Total Budget for the Year 1933	<u>\$1,240,221.42</u>

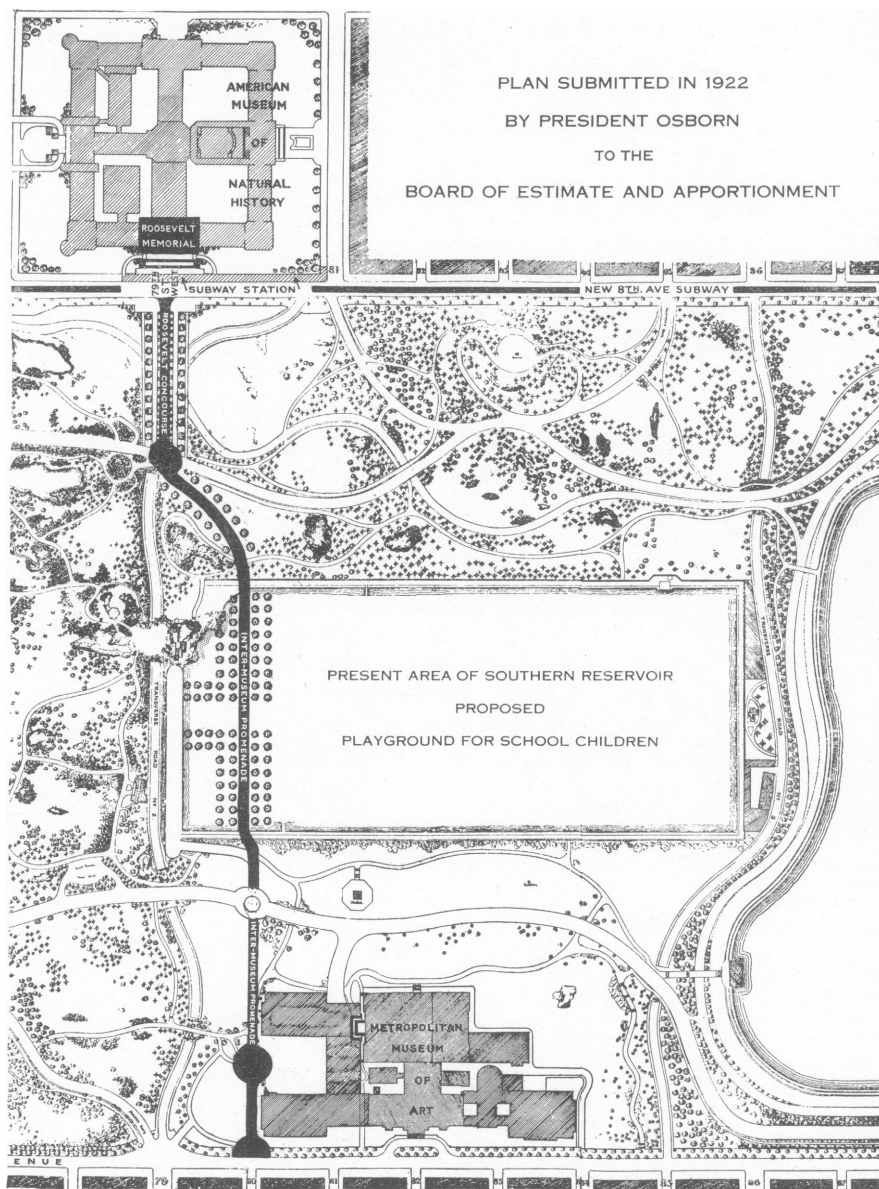
**IMPORTANCE OF SPECIAL FUNDS IN THE
PRESENT CRISIS**

Had it not been for special funds and special gifts and specialized endowment gifts, the American Museum would have faced an even more barren year in 1933. In fact, over

the past five years the interest on special funds is equivalent to that which would be yielded by an endowment of five million dollars, namely, \$250,000.00 per annum. Without these special funds, not only explorations but a considerable part of our scientific work would have come to an absolute standstill.

Researches fostered by special funds are: (1) the twenty-five year researches on the Proboscideans by Professor Osborn, chiefly supported by the J. P. Morgan Fund; (2) the biological researches of Curator Noble supported by Mrs. Henry White, Messrs. Childs Frick, George T. Bowdoin, William Douglas Burden, Cleveland Earl Dodge, Clarence L. Hay, Junius S. Morgan, A. Hamilton Rice, Felix M. Warburg and the Estate of Percy R. Pyne; (3) the archæological and ethnological studies and expeditions supported by the Frederick G. Voss Bequest; (4) the expansion of the activities of our Department of Education supported by the most generous Felix M. Warburg Fund of \$20,000.00 annually for five years and by the Carnegie Corporation Fund of \$15,000.00; (5) also by special gift is the continued and notable success of the Childs Frick expeditions, chiefly in the Pliocene regions of North America and South America, as fully recited below in the Director's report; these expeditions have been accompanied by researches and publications of a most valuable character, prepared and published at the expense of the same generous benefactor. Altogether the Childs Frick collection, which has been assembled during the past seventeen years from previously unknown or unexplored regions of the Miocene, Pliocene and Pleistocene ages, is one of the finest collections of its kind in the world, and the President looks forward confidently to the future construction of the Australian Wing, Section 20, which alone will adequately house this superb collection.

Of all previous years 1932 shines brilliantly in the outstanding gift of the Rothschild Collection by the wife and children of the late Harry Payne Whitney as described in a previous section of this Report.



Proposed Intermuseum Promenade and Roosevelt Concourse
Sketch Plan Submitted by The American Museum of Natural History to the Board of
Estimate and Apportionment, April 3, 1922

SEVEN PRINCIPLES OF TRUSTEE AND MUNICIPAL COÖPERATION

Let the President from his personal experience add seven principles essential to running a jointly controlled and financed Museum like ours.

FIRST: Examine our Charter and Contract of the year 1869 and constantly live up to the spirit and letter of it, namely, that public education is our first duty.

SECOND: Separate with great care, as prescribed in the Charter and Contract, both the letter and the spirit of the financial obligations of the City and of the Trustees. If possible, balance these so that the Museum contribution shall equal or exceed the City contributions. This at once puts us in a very strong fifty-fifty position in recommending expenditures.

THIRD: Plan our building and exhibition halls, etc., with the utmost care, seeking advice from every quarter high and low so that we can see through to the end what part each new building section is going to play in the completed whole.

FOURTH: Never underestimate with the City costs either of maintenance or of building in the hope of securing part of our money under false pretences. State boldly at the beginning what each operation will cost and then stick to these figures.

FIFTH: Close attention, infinite personal sacrifice of time, actual presence at the Board of Estimate or before a Legislative Committee, good nature under rebuffs, will finally win the complete confidence, and in many cases friendship, even of "hard-boiled" City and State financial administrators.

SIXTH: In representing the American Museum, remember that you are always in competition with a host of other claimants for the appropriation of City and State funds. Therefore, you have to state your case very strongly, stick to it without flinching and have a courteous but very determined and inflexible attitude.

SEVENTH: Unless you are absolutely convinced in your own heart and mind that what you are doing is absolutely essential to the best interests of the City or of the State and

carry this spirit of conviction through at every conference, you will never win out.

In brief, be absolutely sure that the Museum is right in its great public educational program, that right makes might, that in the end it is sure to win, no matter how many obstacles of all kinds it has to face.

It was such a policy on the part of President Morris Ketchum Jesup and of J. Pierpont Morgan, combined with their magnificent generosity and faith in the future of the Museum, which brought our institution up to the beginning of the year 1908 when Henry Fairfield Osborn was elected President. There has been no change of policy but rather a continuation and extension of their policy which has brought the Museum up to its present unrivalled position in the scientific and educational world.

The outlook for 1933 and for the new administration under President Davison is equally bright if the Museum continues to be guided by what we trust may be called the Jesup-Morgan-Osborn principles of confidence, of progressive forward movement and of continued generosity.

FINAL ACKNOWLEDGMENTS BY THE PRESIDENT

In concluding this Report, the President desires to make a whole-hearted acknowledgment of the unfailing support given to his twenty-five years' administration, individually and collectively, both by the Trustees and by the members of the Administrative and Scientific Staffs. Every Trustee has done his very best either in contributing time or money, or both, to advance the interests of our noble institution. Some of the Trustees have been in a position to make very large contributions of money; other Trustees have made very large and most influential contributions in time and in personal devotion. All the Trustees have fully done their duty and have never failed to respond to the best of their ability in time of need. Outstanding names in financial contributions are those of George F. Baker, Senior and Junior, George T. Bowdoin, Douglas Burden, Childs Frick, Archer M. Huntington, J. P. Morgan, Junius S. Morgan, Daniel E. Pomeroy, George D. Pratt, A. Hamilton Rice, Felix M. Warburg, Cornelius V. Whitney. Outstanding

service in time and energy is that of Leonard C. Sanford, Cleveland E. Dodge, Clarence L. Hay, and our Treasurers, Henry P. Davison, George F. Baker, Jr., and James H. Perkins. Other Trustees have rendered many gratifying and welcome services.

Finally the President extends a most cordial welcome to his warm personal friend, F. Trubee Davison, fifth President of the American Museum. The new President enters upon his career with an unusual antecedent training, with the bright example of Henry P. Davison before him, and with the prospective support of the entire Board of Trustees, of the Scientific and Administrative Staffs, and last but not least of the retiring President.

II. SCIENTIFIC AND EDUCATIONAL PROGRESS

GEORGE H. SHERWOOD, Director

In common with all other similar institutions, the American Museum of Natural History during 1932 has had to operate on a much reduced budget, which has necessarily restricted many of its activities. Practically all exploration and acquisition of new collections from regular budget funds had to be suspended. The policy adopted has been to concentrate efforts in completing problems and projects well advanced rather than endeavoring to initiate new ones. In carrying out this program, the Director has enjoyed the hearty coöperation of all members of the staff and desires to express his appreciation of their loyalty and devotion.

In spite of budget limitations and curtailment of many activities, the achievements of the Museum are noteworthy and compare favorably with previous years. The Director has the pleasure to present a brief résumé of the year's work. Again, for clarity, this bird's-eye view of the progress of the Museum's scientific and educational development is presented under the five major activities of the Museum, namely, exploration, research, publication, preparation and education, to which every department has made its contributions. This résumé is culled largely from the department reports prepared by the Curators.

EXPLORATION

The year 1932 throughout the world has been largely one of intensive exploration. This type represents the exploration of the future. Today there remain but a few small areas on the world's map unmarked by explorers' trails, but in almost every country of the earth lie vast regions which potentially are unknown. Some of them are mapped poorly, if at all, and many hold undreamed-of treasures in the realm of science.

To study these little-known areas, to reveal the history of their making and to interpret that history to the world of today, to learn what they can give to education, culture and human welfare—that is the exploration of the future.

Intensive exploration is peculiarly a part of the work of museums and scientific institutions. Among all those of the world,

the American Museum of Natural History has been preëminent in this important field. It has sent expeditions to every part of the earth. These expeditions have brought to us the great collections which enrich our halls and research laboratories. They have made the name of the American Museum of Natural History a synonym for scientific exploration of the highest type.

Because of financial stringency, field work during 1932 has been limited to those expeditions which were supported by private individuals; nevertheless, thanks to generous gifts to the Museum, twenty-two expeditions represented the Museum in South America, Africa, Asia, New Guinea, Hawaii, the Panama Canal Zone, Mexico, Santo Domingo, Honduras, and North America. In every case these have been part of very definite plans, either to carry on some research already begun, to fill in gaps in Museum collections, or to inaugurate new projects.

SOUTH AMERICA

Mr. Gilbert Ottley and Curator H. E. Anthony left New York early in January, 1932, on a short trip to northern Venezuela to make a collection of mammals, chiefly in the Merida district. This is a mountain area running up to the line of perpetual snow, and important biologically because it is a type locality for a number of species. It is hoped that the collections may serve as a basis for later study. The party returned to New York on March 2, 1932. Financed by Mr. Gilbert Ottley.

On March 12, Dr. Wendell C. Bennett with Mr. John G. Phillips, sailed for Bolivia to make a survey of antiquities in the Bolivian highlands. This expedition had as its main problem the determination of the sequence and distribution of Tiahuanacan and other pre-Incaian cultures, as well as to obtain more data on the Banderli collection. The trip was highly satisfactory, more than forty-three ruins having been examined and studied. Dr. Bennett stated that the Bolivian Government rendered every possible assistance, the Air Force having furnished a plane for photographic work. As a result, many of the important ruins have been completely photographed. A large number of old Inca houses were found still intact. Dr. Bennett also spent six weeks in Venezuela, during which he excavated a mound near Maracay which yielded a large collection. Supported anonymously.

Mr. Alfonso M. Olalla sent in a collection of 1,515 birds and 1,183 mammals from the Rio Toncantins, Brazil, and Emil Kaempfer, supported by Mrs. Elsie M. B. Naumburg, completed his work in southeastern Brazil.

Mr. Junius Bird left late in the year to study the archæology of Tierra del Fuego. The project will continue throughout 1933. Supported by the Voss Fund.

PANAMA CANAL ZONE

Dr. Frank M. Chapman sailed late in November, 1931, for Barro Colorado in the Panama Canal Zone, where he spent the winter engaged in research in his laboratory there, returning to New York in April, 1932.

SANTO DOMINGO

Mr. John Armstrong and Mr. W. G. Hassler obtained a collection of 1,400 reptiles and amphibians from the little-known mountainous section of south-western Santo Domingo. Many of the specimens were alive and thus available for study in the laboratory of experimental biology. Financed by Mr. L. D. Armstrong.

HONDURAS

Mr. Sherman Pratt financed an expedition to Honduras where he obtained a noteworthy collection of reptiles. It included a series of poisonous snakes of Central America; the notorious fer-de-lance, and four species of vipers.

MEXICO

Dr. George C. Vaillant returned from Mexico early in May. He visited the pyramid site of San Juan Teotihuacan, studying the sequential dating based on pottery, in an attempt to establish the origin of Teotihuacan civilization. He not only discovered three periods but also a new culture, that of Mazapan, which was defined and dated as post-Teotihuacan and pre-Aztec. Supported by the Voss Fund.

ASIA

Mr. Sidney Legendre, accompanied by Mr. T. Donald Carter, made an expedition to Indo-China to collect birds and mammals, filling an important gap in the Museum's collections from that part of the world. On March 16 they reached Saigon, completing a six months' tour, during which the entire length of Indo-China was traversed three times, and more than two thousand miles covered. Collections were made from every province. Three hundred and eighty-four mammals were acquired, and three hundred and eighty-two birds. Gift of Mr. and Mrs. Legendre.

Dr. Roy Chapman Andrews returned to the Museum on October 1, after having spent three months in China. Having found conditions unfavorable for continued operations in Mongolia, using China as a base, he permanently closed the Central Asiatic Expedition's headquarters in Peking. He proceeded to Mukden and Chang-chung, Manchuria, where successful negotiations were carried on for continuing the Museum's explorations in the Gobi Desert from Manchuria. Financed through Central Asiatic Expeditions Funds.

Dr. Margaret Mead remained during the year in New Guinea, where, among other activities, she is making a collection to illustrate the life of the primitive tribes of that region for a Museum group. Supported in part by the Voss Fund.

The Whitney South Sea Expedition, under the leadership of Mr. William F. Coultas, arrived in Rabaul, New Guinea, in January. The Expedition's schooner, "France," being no longer needed, was sold, and the party proceeded as a land unit. Collections have been made in the central part of New Britain. Financed by the Whitney Fund.

After a six months' trip to the Orient, Dr. H. L. Shapiro returned to New York on March 11. He spent some time in Hawaii, making race-mixture and genetic studies among the Chinese-Hawaiian and Japanese-Hawaiian population. He went to Japan, from Hawaii, to make a study of pure Japanese races in contrast to the Japanese-Hawaiian mixture. He then proceeded to China to study a group of Chinese. On his return home he also visited the Federated Malay States to investigate the Semang pygmies. Supported in part by the Voss Fund.

Professor Panchanan Mitra, University of Calcutta, has been studying the tribes of Assam and Burma. The work will continue throughout 1933. Supported by the Voss Fund.

AFRICA

In May, the Phipps-Bradley Angola Expedition left for West Africa, where they will endeavor to obtain a representative collection of both small and large mammals. A first shipment from Mr. Lee S. Bradley indicates that excellent progress is being made and the Museum can look forward to valuable collections from Angola and adjacent regions.

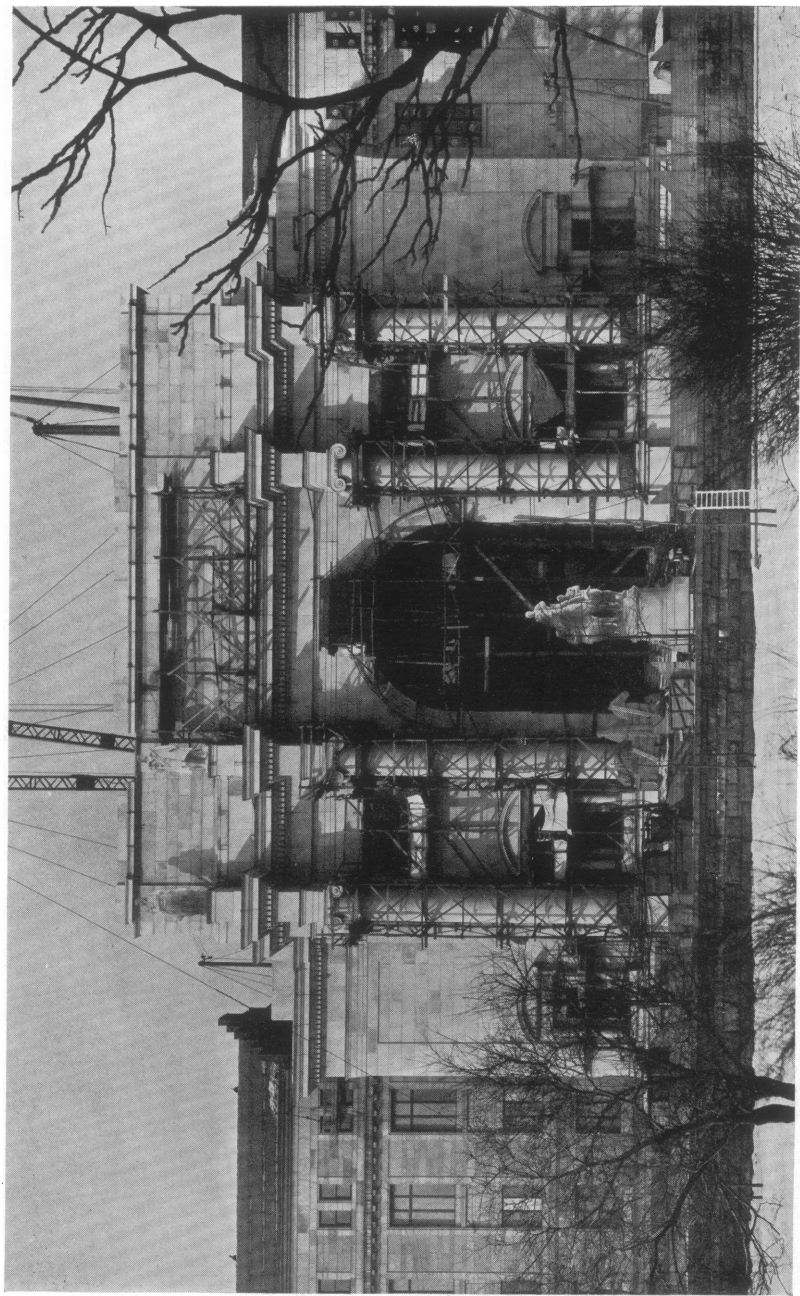
An extensive collection of reptiles and amphibians from Liberia was obtained by Mr. G. W. Harley.

NORTH AMERICA

Mr. Barnum Brown explored the Lower Cretaceous beds in Cloverly, Wyoming, and southern Montana, obtaining 52 cases of fossils. He discovered a new type of dinosaur, *Nodosaurus*. Later in the same location the remains of a dinosaur with fossil skin and armor plates intact were found on the Crow Reservation about fifty miles southeast of Laurel. A very considerable part of the fossilized outer covering of the animal had been preserved with the bones, the whole imbedded in sandstone. This is the first time in the history of palæontology that such a complete specimen has been unearthed. Apparently the animal died in the sea which covered this portion of the continent millions of years ago. It was washed ashore and lodged in the sand on its back. In succeeding ages it became deeply buried. In subsequent convulsions of nature the former seashore was raised and became a part of the dry land. The weather then began its process of uncovering, and one auspicious day, Mr. Brown found, in an outcropping of stone, the fossilized remains of the dinosaur. It will be more than the usual dinosaur skeleton when completed, for it will carry with it a true picture of how such reptiles once looked, clothed with flesh, skin and plates. It proved to be the ancestor of the plated type, *Peltosaurus*. Supported by contributions from Childs Frick, J. P. Morgan Fund and Jesup Fund.

Dr. G. G. Simpson spent some time during the summer in the Fort Union formation of Montana, studying Paleocene material in order to complete the monograph of the late Dr. James W. Gidley. The work was sponsored by the United States National Museum in coöperation with the American Museum of Natural History.

Mr. Childs Frick continued his explorations of the Miocene and Pliocene beds of the western states with excellent results, and an additional lot of material, mostly *Bison*, was received from the Pleistocene of Alaska through the coöperation of Professor Charles E. Bunnell of Alaska College.



The New York State Roosevelt Memorial
Nearing completion as this Report goes to press

During September and October, Dr. C. A. Reeds, assisted by Messrs. Happ and Zellner, bored for samples of varved clays in the Hackensack and Passaic River basins of New Jersey. With special tools designed in the Department of Geology, sixty such samples were obtained from the surface to a depth of 32 feet.

On August 31, Dr. Clyde Fisher, Curator of Astronomy, flew above the clouds to photograph the eclipse of the sun and succeeded in making interesting photographs and motion pictures of the oncoming shadow of the moon. His altitude was 16,000 feet, or 8,000 feet above the clouds.

During the summer he made a trip to the southwest to study Meteor Crater in Arizona. He flew by plane to Meteor Crater and photographed this unique formation from an altitude of 2,000 feet. Dr. Fisher was convinced by his examinations that the only adequate explanation of the cause of the crater is the impact on the earth's surface of a giant meteorite.

The Curator-in-Chief of the Department of Anthropology, Dr. Wissler spent the summer in New Mexico, where, in cooperation with the Laboratory of Anthropology, materials illustrating the dating of ruins by the tree-ring method were gathered. Supported by the Voss Fund.

RESEARCH

Research is that painstaking study of the results of exploration either in the field or the laboratory which has as its object the correct interpretation of the data secured, and the determination of its place in the scheme of the universe. Museum research workers have made important contributions in this field during 1932.

Minerals and Gems. In the General Collection of Minerals of the world, gaps in the series representative of rare mineral species are constantly being filled, in many instances by original type specimens from the collections of the scientists credited with the discovery of these rare minerals. Also search through our own collection has, in a number of instances, resulted in the identification among old specimens of newly announced species, thus greatly enhancing the value and interest of these.

Vertebrate Palaeontology. Curator-in-Chief Professor Henry Fairfield Osborn has continued, almost uninterruptedly, his studies upon the Proboscidea. The first section of this Memoir, that devoted to the Mastodons, is nearing completion and it is planned to publish this part in advance of the second part which treats of the Elephants.

Preliminary studies on the Mongolian Collections by Professor Osborn and Curator Granger resulted in the publication of two important *Novitates* articles, one on the shovel-tusked Mastodon

and the other on the newly discovered Amblypoda. Further studies on this collection are in progress by these authors.

Curator Brown has completed preliminary studies on the unique primitive Crocodilian from the Trias of Arizona and has advanced his investigation of the small Triassic dinosaurian, also from Arizona, discovered by him two years ago.

Associate Curator Simpson has devoted the greater part of his time to studies on the Scarritt-Patagonian Collection, and several *Novitates* papers have been prepared, all of which are preliminary to his final report upon the pre-Santa Cruz faunas of Patagonia. Studies on Florida mammals, on newly mounted skeletons, and on various other minor unrelated subjects have also been undertaken by Doctor Simpson, and several papers have been published.

Assistant Curator Colbert has continued to assist Professor Osborn on the Proboscidea Memoir, and in this connection made a trip to England where he worked with Professor Osborn in studies of the British Museum collection of proboscideans. Later, Mr. Colbert made a tour of the continental museums, making a general study of palæontological collections. During the year the Department was favored by the visits of two foreign palæontologists: Dr. Shigeyasu Tokunaga, who spent several days studying the Museum Mongolian Eocene collections, and Dr. Guy E. Pilgrim, who came over from England for two months at the special request of the Department to study the Bovidæ of the Siwalik Collection. Both of these workers have prepared papers which will later be published by this Museum.

In addition to his studies on proboscideans, Mr. Colbert has taken up the review of the entire Siwalik Collection, aside from proboscideans and bovids, and has already prepared several articles dealing with forms new and of special interest.

Geology and Invertebrate Palæontology. Curator Reeds co-operated with Professor H. F. Osborn in the preparation and publication of a series of Homolographic Base Maps of the World. These maps are based on a modified von der Grinten projection. On three maps eastern and western hemispheres are shown separately with the 90th meridians as median meridians. Another map shows the two hemispheres combined at the 60th parallels and 180th meridian with a portion of the Pacific Ocean incised.

Six maps, showing Professor Osborn's around the world route and various ethnographic areas, were prepared under the direction of Curator Reeds.

Dr. Carlotta J. Maury of Yonkers, New York, was engaged in July to prepare a report on a Museum collection of invertebrate fossils from northeastern Brazil. Considerable progress was made with this report, which was requested by Dr. Luciano J. de Moraes, Geologist of the Geological Survey of Brazil, who made the collection.

Work on the Catalogue of Meteorites was continued. In this connection more than 2,000 specimens were re-weighed by Assistant George D. Pinkley.

Miss Helen Forsberg, a volunteer student from Hunter College, rendered valuable assistance by identifying a considerable number of species in a collection of Devonian fossils from New York and Pennsylvania.

Living Invertebrates. Considerable work has been done by Professor B. Rensch of the Museum of the University of Berlin and Professor William J. Clench of the Museum of Comparative Zoology of Harvard University on the large collection of mollusks of the Solomon Islands collected by the Whitney South Sea Expedition.

Dr. Van Name has continued his work on ascidians.

Curator Miner has continued his work on his "Field Book of Seashore Life."

During the year, the scientific study collections of general invertebrates have been increased by 931 specimens, including 205 species, of which 122 are new to our collections and are included within 14 new genera. The additions include 40 types, 65 cotypes and 15 paratypes.

In the mollusk collections, 2,450 lots have been catalogued, a total of about 25,000 specimens. This increases our catalogued mollusk collections to 61,850 lots, with a total of about 620,000 specimens. The new laboratory for the study of mollusks adds greatly to our facilities in this department.

Entomology. Curator Lutz has continued his experimental work. Two of the subjects taken up are Experiments with Orthoptera concerning Diurnal Rhythm and, with the assistance of Mr. Richard Burlingame, Ultraviolet Patterns in Lepidoptera. The

results of the first subject have been published, while the latter is still an unfinished problem.

The appointment of Mr. Willis J. Gertsch in June of this year, as Assistant Curator in charge of Spiders, was a welcome addition to the staff, as he has not only devoted his time to arranging this more or less neglected group of animals but has published and has in preparation articles on the group.

Ichthyology. Dr. Gregory's memoir, entitled "Fish skulls: A study of the evolution of natural mechanisms," has been completed and is now in the press.

Mr. J. T. Nichols, Miss Francesca R. LaMonte, Mr. C. M. Breder, Jr., and Mr. George S. Myers have been engaged in systematic and faunal studies on various collections of recent fishes, and the first draft of the systematic section of Curator Nichols' work on "Freshwater Fishes of China" has been completed.

Dr. E. W. Gudger has made studies on the natural history and distribution of various fishes, including the Florida whale shark; dolphin on the North Carolina coast; the whale shark, *Rhineodon typus*, among the Seychelles Islands; and the shovel-nosed sturgeon in the Arkansas River. He has also completed a manuscript with Dr. B. G. Smith on "The natural history of the frilled shark, *Chlamydoselachus*."

Dr. E. Grace White has completed a comprehensive and thorough work on the anatomy, classification and evolution of modern sharks, based largely on American Museum collections.

Dr. Hussakof's report on fossil fishes from Mongolia has been completed and has been published in *Novitates*.

Studies on Museum material by foreign ichthyologists, including Colonel W. P. C. Tenison of the British Museum, Dr. Tomas L. Marini, of the Buenos Aires Museum, and Dr. Y. T. Chu, of St. John's University, Shanghai, were made during the year.

Herpetology and Experimental Biology. During the past year Assistant Curator Pope has been relieved of all other Department duties in order that he might give full time to his report on the very large collection of reptiles and amphibians obtained by the Central Asiatic Expeditions. In June he went abroad to study the collections of Chinese reptiles and amphibians in the various European museums. By the close of the year he had completed this work and

had begun a study of the Chinese collections in the major American museums. This survey of all the Chinese reptiles and amphibians in the principal museums of the world will make Mr. Pope's report an authoritative treatise.

The year has been a very fortunate one in the field of biological research. Significant results have been obtained in several directions. Continuing the work on hormones of the pituitary gland, Dr. Noble and Miss Richards discovered that red pigment formation in salamanders is directly controlled by one of the hormones of the pituitary gland, and they have published a preliminary note on their findings. One of the hormones of the gland controls the breeding season of animals. Breeding may be induced out of season by treating with extracts of the gland. Dr. Noble and Miss Richards have made use of this fact in securing the eggs of rare salamanders and they published a report on this work in *Novitates*. In order to study the brooding habits of salamanders, Miss Evans and Dr. Noble used the method of induced breeding, and a paper on their work appeared this year in *Novitates*. Dr. Noble and Mrs. Mason have extended these brooding habit studies to lizards with interesting results on the ability of lizards to discriminate eggs of their own species from others which resemble them closely. They have also discovered that the amount of water a reptile absorbs or loses through its skin is closely correlated with the distribution of the species. A preliminary note on this work appeared in *Science*.

It frequently happens in systematic zoölogy that after all the known facts of anatomy, development and distribution of a species have been brought together, no definite conclusion can be reached as to the immediate relationships of a form. Several such cases are found among the Amphibia, and Dr. Boyden and Dr. Noble have applied new methods of blood analysis in the study of these affinities. The results have proved so interesting that this new approach may find a wide use in systematic zoölogy.

For several years the laboratory of experimental biology has maintained a reptile colony in the Museum. This year a study on the relation of endocrines to the molting process in lizards was completed and the paper sent to press. Another study by Dr. Noble and Mrs. Bradley completed this year analyzes the importance of temperature in controlling the form assumed by scales during regeneration. For several years Dr. Noble has been studying the

phylogeny of behavior patterns in vertebrate animals. This year he reported to the American Society of Ichthyologists and Herpetologists his observations on the important rôle of the facial pit of pit vipers in detecting air vibrations. With the assistance of Mrs. Bradley, he worked out the courtship patterns of a series of lizards, and the report has been accepted for publication by the New York Academy of Sciences.

Ornithology. Departmental activities have been carried on this year largely along lines of research due to the curtailment of work in the field through lack of funds.

Dr. Murphy continued his work on the oceanic birds of South America, the research of which is completed, leaving only the writing of the final drafts of the biographies. This work was interrupted for some five months by the lengthy task of cataloging, packing and shipping the Rothschild Collection, acquired during the year, which necessitated a prolonged visit to Tring, England, where the collection was maintained.

Dr. Chapin has continued work on his reports on "The Birds of the Belgian Congo," the first volume of which appeared on December 17, as *Bulletin* of the American Museum, LXV, pp. i-x, 1-756.

Mr. Zimmer has continued his studies on Peruvian and other Neotropical birds and has also attended to the general administration of the Department during Dr. Chapman's absence.

Mrs. Naumburg has gone ahead with her investigations of East-Brazilian bird life and has published "Three New Birds from Northern Brazil," in *Novitates*.

Dr. Ernst Mayr, visiting research associate, has studied the collections of the Whitney South Sea Expedition. During the summer he returned to Europe and visited various European museums for the examination of the types and other specimens of Polynesian birds preserved therein, again coming to this country for the continuation of his researches here.

Mammalogy. During 1932 the time of the Curator was too taken up by matters of exhibition, department administration, expeditions and conservation activities to permit of more than very casual attempts at research, but other members of the department were more advantageously situated and considerable has been done in the way of study upon the collections.

Assistant Curator Hatt has been working on such groups of the Lang-Chapin Belgian Congo collections as had not been studied by the late Dr. J. A. Allen. He has made good progress in this work, and the Congo studies will be his major project until completed.

Assistant Curator Goodwin has practically completed his studies upon a collection of about one thousand mammals secured in Guatemala by Mr. A. W. Anthony. This is an important collection made at the same time that birds were collected for the late Dr. Dwight and upon which Mr. Griscom has reported in a special volume of the *Bulletin*. Mr. Goodwin's paper will be a valuable contribution to the literature upon Central American mammalogy.

Assistant Curator Tate has spent most of the year in searching the literature in order to bring our card index on South American mammals up to date and to enable him to build up a synoptic or reference collection of South American mammals. As a by-product of this investigation, he has published a series of useful taxonomic papers.

Assistant Curator Carter, upon his return to New York from the Legendre Indo-China Expedition, in May, spent some time in identifying his collection, a part of which was to be sent to the Academy of Sciences in Philadelphia. Upon the completion of this task, he began the identification of the large and important collections made by Mr. Vernay in Angola and the Kalahari desert. This latter project will continue to be his major undertaking until it is completed.

Research Associate Richard Archbold spent most of 1932 in working up his report on the mammals of Madagascar and in organizing his expedition to Papua and adjacent islands. In these connections, he visited European museums during the summer and examined material there.

Comparative and Human Anatomy. In collaboration with the Department of Ichthyology, Curator Gregory continued and completed his extensive investigations on fish skulls, which will be published early in April, 1933, by the American Philosophical Society. In this work he has enjoyed the skilful coöperation of Mrs. Helen Ziska in the making of the drawings and of Mrs. C. P. Meadowcroft in the preparation and editing of the manuscript.

Associate Curator Raven completed the long series of maps illustrating the distribution of mammalian species on either side of

Wallace's line. He also prepared a superb series of dissections of the feet of primates, from which molds and casts were made and colored by Mr. W. L. Morgan. As Prosector of the New York Zoological Society, Mr. Raven made many dissections and preparations of animals received from the Zoological Park, which were added to the collections of this department.

Associate Curator Chubb completed the mounting of the Chapman Zebra skeleton and continued his investigations on the following topics: animal action, the dentition of the Equidæ, recapitulation, cervical ribs in birds and mammals, the auditory region and the jaws of foetal and adult human subjects, the status of the second and fifth digits in cattle and the coalescence of their third and fourth digits.

Anthropology. The major research projects all involved field study and have been reported under the section devoted to exploration.

Asiatic Exploration and Research. Mr. Pope, who for the past year has been working on the final volume on reptiles and amphibians, spent six months in Europe, studying Asiatic collections in various museums. He anticipates that his volume will be ready for publication at the end of 1933.

Dr. Glover M. Allen and Mr. John T. Nichols have continued their work upon the volumes on mammals and fishes.

Forty-three maps made by the Expedition have been published, and Dr. Berkey, assisted by Professor deSmitt, has been carrying on extensive research into Russian literature, relative to the making of Russian maps. The map collection, which will be issued in 1933, will embody the results of this research, as well as sections contributed by various topographers, describing the methods of making the maps.

Dr. L. E. Spock, Jr., and Père Teilhard de Chardin have written manuscripts based on their studies of Mongolian geology with the Central Asiatic Expeditions, which will be incorporated in Volume III of the final reports.

Professor Osborn and Dr. Granger have continued their studies of Mongolian mammals, particularly the Amblypoda and Proboscidea.



Interior of the New York State Roosevelt Memorial

This great memorial hall will be 67 feet wide and 120 feet long, reaching 100 feet above the floor. The walls will be of green marble and mellowed limestone

PRINTING AND PUBLISHING

Inasmuch as in 1932 it was necessary to suspend all expeditions, excepting those privately supported, the members of the scientific staff were not able to go into the field, and consequently could devote their time to researches within the building, and especially to preparing their manuscripts for publication. Thus 1932, thanks to the efficiency of our printing and publishing department, has been a banner year in the number and extent of scientific papers published. The main avenue of publication has been our standard series, namely, the *Bulletin*, *Novitates*, the *Anthropological Papers*, and the *Memoirs*, and the popular publication *Natural History* magazine. In addition to papers appearing in these publications, several members of the staff have published books pertaining to their work, with some of the commercial publishing houses, and articles and papers that could not be published by the Museum have been issued in the publications of scientific societies. The importance of publishing the results of our expeditions and researches of our staff can hardly be overestimated, since this is the avenue by which these discoveries are made known to the world. The extent of the work of the American Museum press will readily be seen from the following brief account of the equipment of our plant and the activities for 1932.

THE AMERICAN MUSEUM PRESS

It is always difficult to measure the output of a printing plant in terms understandable by those unfamiliar with printing. One method, however, that will to some extent visualize the amount of work done by a printing press is to give the number of actual impressions it makes. Sometimes, it is true, a given print job requires several impressions before its completion. On the other hand, it is sometimes possible to print a number of copies of a given job with one press impression. These do not average exactly to the point where a press impression means a finished job, but this method of measurement more or less suggests the output. Thus, the two large cylinder presses on which the *Anthropological Papers*, *Bulletin*, *Novitates*, *Guide Leaflets*, *Handbooks*, *Natural History* magazine, etc., are printed, turned out a total, during 1932, of 1,579,495 impressions.

The job presses, during the same time, printing the smaller and the more numerous jobs, demanded by the twenty departments

ordering such printing, turned out a total of 2,253,853 impressions. Something over half of this was for Administration, Membership, and Public Education, and about 22 per cent. of it was for *Natural History* magazine.

This does not, of course, give any idea of the amount of work turned out by the composing room, where all of the type required for printing is set. In this department of the Museum press, eight compositors are constantly employed and are invariably pressed to turn out the type called for by the requisitions for printing.

The bindery, too, in which seven people are employed, is equally busy, folding, stitching and covering the hundreds of thousands of pamphlets, magazines, scientific publications, etc., that come to them, and in such time as they have between these tasks, the bindery employees face a constant demand for the re-pairing of library books worn because of time and handling by the staff and visiting readers.

EDITORIAL DEPARTMENT

The Department of Printing and Publishing includes, besides the divisions already listed, the editorial department and an administrative office. Four editors, under the immediate direction of Mrs. Timonier, are constantly engaged in the editing of scientific publications, exclusive of the work done by Dr. Reeds and Miss Beale on geological and palæontological papers and Dr. Wissler and Miss Weitzner on Anthropological Papers. *Natural History* magazine requires the full time of an associate editor, Miss Berger, an assistant editor, and a considerable part of the time of the curator who is also the editor of the magazine. The administrative office keeps a detailed record of work requisitioned by other departments, including accurate costs and a file of all work that has been and is being handled. By this method it has been possible to increase the output of the department at a tremendously greater rate than the increase in the staff would suggest as possible.

The activities of our staff in the field of publication in 1932 are briefly presented in the following statements of the work in each department:

Minerals and Gems. A second printing of Handbook 12, "The Story of the Minerals," has appeared during this year. In addition, two articles, "The Antique Use of Gems" and "Jade," have

appeared in *Natural History* as a result of popular demand for published information relative to the Morgan Gem Collection.

Vertebrate Palæontology. Sixteen numbers of *Novitates* and one *Bulletin* were published by the Department during the year, and Volumes IX and X of Fossil Vertebrates in the American Museum covering the years 1925 to 1931 were prepared for distribution, with introductory matter for each volume. Because of lack of funds, these two volumes were sent out to the usual recipients in an unbound condition, only twelve copies of each being bound up for Department use.

Geology and Invertebrate Palæontology. At the request of Professor Charles P. Berkey of Columbia University, local Chairman of the 16th International Geological Congress, Curator Reeds prepared two guide books: "Varved Clays and Other Glacial Features in the Vicinity of New York City" and "The Scientific and Educational Institutions of New York City and Vicinity" for the 1933 meeting of the Congress in the United States.

Living Invertebrates. Dr. Van Name's important monograph on the land and fresh-water isopods of North America completed last year was placed in the hands of the editor, but due to lack of funds its publication was postponed. Dr. Van Name took the opportunity of revising it and bringing it up to date, after which it was again placed in the editor's hands.

Two articles were published during the year by Filippo Silvestri, entitled "A New and Extraordinary Genus of the Diplopod Family Polydesmidæ from British Guiana" and "Description of a New Genus and Two New Species of South American Diplopoda of the Family Polydesmidæ."

Besides Dr. Van Name's paper, four other papers are in press for either *Novitates* or the *Bulletin*.

Four papers based on Museum collections are being published by The New York Academy of Sciences in connection with the Scientific Survey of Porto Rico and the Virgin Islands, and four more are in preparation.

Entomology. The many publications of the department have covered various subjects on Entomology and Arachnidæ, and included in this are descriptions of numerous new species. The

outstanding publication among the scientific series is "The Genus *Melipona*" by Mr. Herbert F. Schwarz, which contains the descriptions of several new forms.

Ichthyology. The Department of Ichthyology reports a long list of publications during 1932. Members of the department contributed 6 articles to the *American Museum Novitates*, 1 to the *Museum Guide Leaflet*, and 12 to various other journals and publications.

Doctor Gudger and Bertram G. Smith completed the manuscript on "The Natural History of the Frilled Shark, *Chlamydoselachus*" for the *Bashford Dean Memorial Volume*.

Herpetology and Experimental Biology. During the year the final report on the splendid collections of reptiles and amphibians secured by the Whitney South Sea Expedition was published. This represents a study of all our Polynesian collections by Dr. and Mrs. C. E. Burt.

Dr. Noble published a report on the "Reptiles of Great Inagua Island," written jointly with Mr. G. C. Klingel. He also published a joint report with Mr. B. C. Marshall on the life history and systematic status of the salamander, *Siren intermedia*. He has in press a paper on the life history of another salamander, *Ambystoma opacum*. This is written jointly with Mr. Brady.

An account of the courtship behavior of *Ambystoma jeffersonianum*, as observed in the laboratory, was published in *Novitates* by Miss Kumpf and Mr. Yeaton.

Mr. M. J. Allen published an account of the reptiles and amphibians of Harrison County, Mississippi, based on a collection which he presented to the Museum.

Dr. Noble has written a series of articles on Comparative Anatomy, Morphology, etc., for Collier's Encyclopædia.

Ornithology. A popular account of some of Dr. Chapman's recent studies on Barro Colorado Island entitled "From a Tropical Air Castle," was published in *Natural History*.

Dr. Chapin has continued work on his reports on "The Birds of the Belgian Congo," the first volume of which appeared on December 17, as a *Bulletin* of the American Museum.

Other members of the department contributed ten articles to the *American Museum Novitates*, 3 to *Natural History*, 1 to the

Geographical Review and 1 to the *Bulletin of the British Ornithological Club*.

There should also be recorded the publication of "The Distribution of Bird Life in Guatemala," by Ludlow Griscom, begun by Mr. Griscom when a member of this Department, and based in large part on the collections of this institution. This excellent report appeared in the *Bulletin of the American Museum*.

An article by Viscount Grey of Fallodon on "Canvasback Ducks in Northumberland, was published in *Natural History*, and is of special interest.

Mammalogy. The publication of the "Records of North American Big Game," under the auspices of the New York Zoölogical Society and the Boone and Crockett Club, called for extensive coöperation on the part of this department. Messrs. Carter and Goodwin measured many big game heads for these Records not only at the Museum but also did no little travel in order to examine trophies which the owners were unable to send in for comparison. Curator Anthony wrote the chapter in the book dealing with the Wapiti, and, in addition, wrote the introductory chapter upon Heads and Horns.

The various members of the department completed seven articles which were published in the *American Museum Novitates*, and eight articles which were published in the *Journal of Mammalogy*, *Woodcraft*, *Ecology*, *Anatomical Record*, the *Bulletin* and *Natural History*.

Comparative and Human Anatomy. Curator Gregory and Associate Curator Raven published several papers in *Natural History* and outside publications during the year.

Associate Curator Chubb completed the revision of "The Horse under Domestication" (*Guide Leaflet*, 1932).

THE LIBRARY

Each new volume which is added to the Library is another stone in the building of that important and intricate structure which is at once a bridge to the rich realms of past learning and discovery, a tower of light for the future, and withal, a storehouse of recorded fact and theory, without which progressive research would be almost impossible and certainly futile.

In spite of the present financial stringency, we have been most fortunate in procuring a number of valuable new items, some by

gift, others by purchase. Much important material has also been received through the medium of exchange. The Library, having at its disposal the various excellent series issued by the Museum, is able to establish and maintain exchange relations with representative scientific institutions wherever research and exploration are being undertaken. These exchange relations have a double value: they not only enrich our collections and further the dissemination of our own series, but promote a feeling of cordiality and coöperation which tends to bring the world of science into closer harmony.

During 1932 the following publications have been issued by the Museum and made available to our deposits and exchanges:

The *Bulletin*, established in 1881, containing scientific records of explorations and researches of the Museum, in geology, palæontology, mineralogy and zoology. Two monographs have appeared in this series, one on the Distribution of Bird Life in Guatemala, another on the Birds of the Belgian Congo, by Ludlow Griscom and James P. Chapin, respectively. Four articles were also issued in Volume LXIII. A total of 1,743 pages, 30 plates, 282 text-figures, 3 maps and 16 charts.

American Museum Novitates, begun in 1921, comprising preliminary reports of new discoveries in mineralogy, geology, palæontology and zoology which can be made available for immediate distribution: Seventy-seven numbers appeared in 1932, totaling 1,012 pages, 287 text-figures.

Anthropological Papers, devoted to the work of the Department of Anthropology: Title-pages and indices were issued for Volumes XXX, XXXI and XXXII, thus completing three more important volumes in this series.

Handbooks, a series of cloth-bound books, of a somewhat popular nature, dealing with subjects illustrated by certain of the exhibits: New editions were issued of No. 3, "Ancient Civilizations of Mexico and Central America"; No. 11, "Old Civilizations of Inca Land"; No. 12, "The Story of the Minerals."

Guide Leaflets, a series, as the name implies, which helps to make the exhibits more understandable and interesting: New editions of No. 41, "Indians of Manhattan Island and Vicinity"; No. 52, "The Hall of the Age of Man," and of the *General Guide* to the Exhibiton Halls, have appeared.

Volume I of *The Natural History of Central Asia* was issued at the close of 1932, under the title "The New Conquest of Central Asia," by Roy Chapman Andrews, and marks a definite step forward in the publication of these important contributions, a detailed list of which will be found on the covers of this report. (Edited by Dr. C. A. Reeds).

The distribution by sale of 16,864 copies of the Museum's *Handbooks, Guide Leaflets and School Service Series*, is proof of the increasing interest displayed in the various fields of natural history.

In possessing one of the finest libraries of its kind in the country, the Museum desires to have its services reach as wide a circle of readers as possible. It is, therefore, glad to report that during the past year 2,947 readers visited the reading room, for whom 10,576 volumes were brought from the shelves. In addition, 12,125 books were charged out to members of the Staff. In this way we have assisted the students of the schools, colleges and universities, local or visiting scientists, and a large number of others in search of specific data. An added service has been rendered by the reading tables in the exhibition halls for the use of visitors. Six hundred and fifteen persons have availed themselves of this opportunity to gain a closer knowledge of the subjects represented by the exhibits.

One hundred and fifty-five of our volumes went still farther afield, as inter-library loans, a service of great mutual value to all libraries that participate in this system of coöperation.

PREPARATION AND EXHIBITION

For the first time in the history of the Department, Preparation has been given proper and adequate quarters. Previous to 1932, the ever-increasing Department was crowded and scattered in five widely separated units, from garret to basement, where work went on, but only with difficulty.

With the big program of African Hall, Oceanic Hall, Birds of the World Hall, and several others in view, besides the heavy routine work, it was necessary to provide quarters which would permit this Department to meet the demand upon it.

The building of the new power plant in the northwest court was so planned as to give Preparation the three top floors, where now the entire Department is under one roof, with ample space and proper equipment. This not only speeds up the preparation

program, but keeps much of the work out of the exhibition halls while it is in process.

During the summer, the Department moved into these new quarters, while the second floor, north wing (which formed a part of preparation workshops) was set aside for a semi-public exhibit, where the several hall models were centralized and where demonstration exhibits of preparation methods are shown to interested visitors and classes.

Here, too, the main office of the Department is situated in the centre of its activities where it is convenient to all, including inquiring visitors who are kept out of the studios, except by a pass.

Among the major pieces of work completed were:

The Congo Bird Group

A detailed scale model of the Castillo Cave

Two Siberian tigers and a wild boar for this group, which is to go in North Asiatic Hall

A large number of anatomical models, drawings and charts for the new Hall of Anatomy

Six cover designs and several illustrations for "Natural History"

Three relief maps of the Grand Canyon

Much routine work for African Hall, in the way of mounting of animals, making accessories, etc.

Besides this, there was much work for the Departments of Mammalogy and Public Education, included in the

4,355 skulls cleaned

170 skins tanned

377 skeletons cleaned

257 mounts

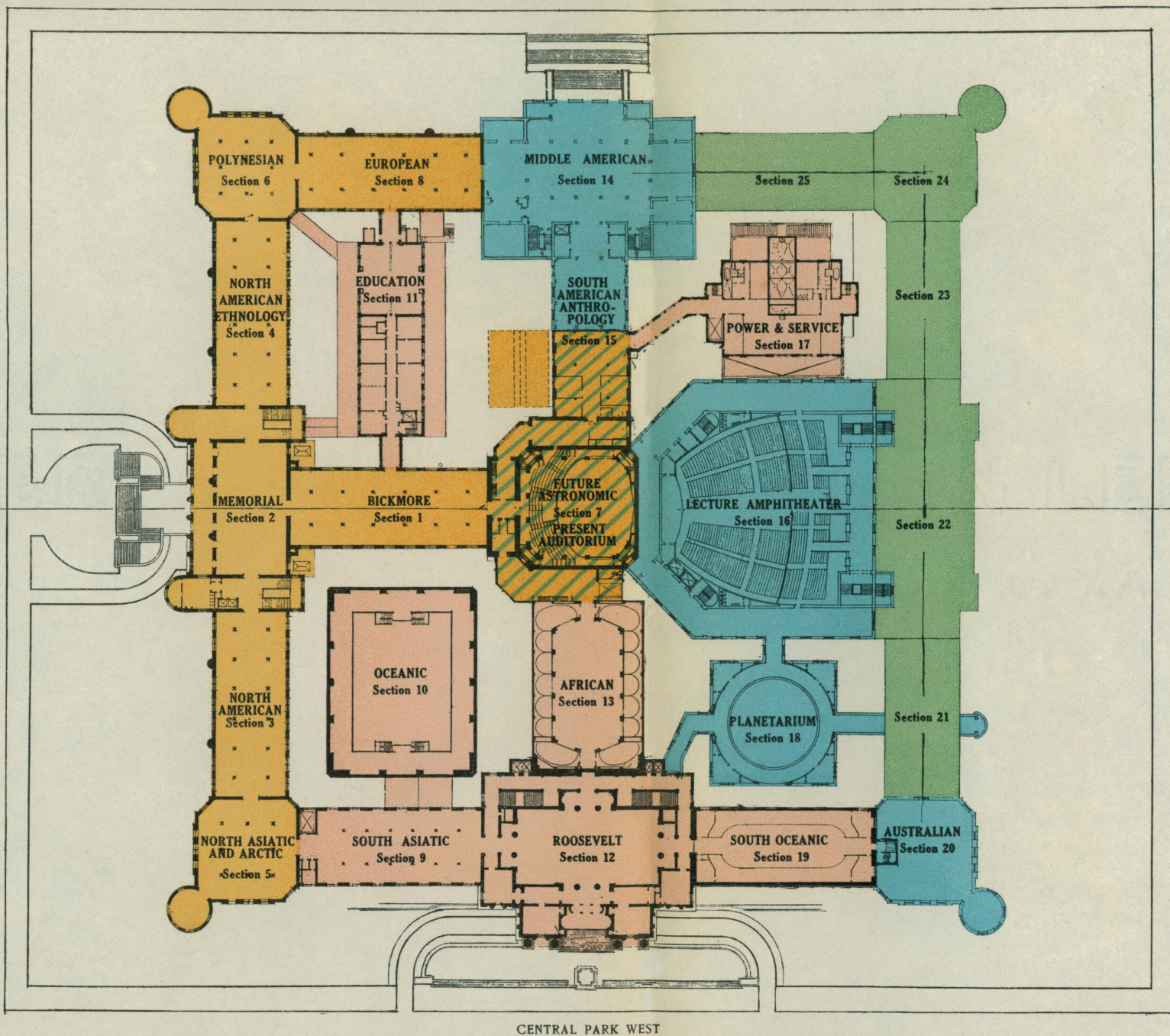
861 study skins made up

29 school circulating groups

Much Department administrative work was done in connection with the new African Hall, which was made ready for the construction of group cases.

Moving of the Department absorbed much of the time of all the staff.

Mineralogy. The series of models which was begun several years ago has been rounded out and supplemented during the year through the addition of a set of cardboard representations of the figures drawn by Haiy in 1822, and by a set of "ball and rod" models showing the crystal structure of the silicates as worked out



THE AMERICAN MUSEUM OF NATURAL HISTORY
and THE NEW YORK STATE ROOSEVELT MEMORIAL

Buff: American Museum Building Sections erected by the City of New York during the administrations of Presidents Stuart and Jesup. Pink: Seven Building Sections erected during the administration of President Osborn, the Roosevelt Memorial by the State of New York and the others by the City of New York. Blue and blue-hatched: Six Building Sections planned during President Osborn's administration and ready for construction by the City. Green: Five Sections which have not been planned

by John W. Gruner (1931). The series now numbers 44 models and fills one half of Case 24 of the Introductory Series.

The Drummond Gift Collection of Chinese carved objects in jade and other ornamental stones has been greatly augmented during the year, and now fills two large upright cases near the center of the Morgan Hall.

Geology and Invertebrate Palæontology. Due to the opening to the public of the new Power Plant building and the former engine room, it was found necessary to remove the general meteorite collection from exhibition in the northwest pavilion and place these specimens in storage pending the acquiring of new exhibition space.

In the preparation of material for exhibits on Rock Weathering, Modes of Fossilization, Sedimentation and Volcanism, Assistants Happ and Helprin rendered valuable service by selecting suitable specimens from a long list of accessions and in placing a considerable amount of this material on exhibition. Mr. Victor Schmidt, a voluntary assistant, identified the species in a gift collection of fossil invertebrates and selected specimens for an exhibit on Modes of Fossilization.

Vertebrate Palæontology. In the laboratory, preparation work on the 1931 and 1932 Cloverly dinosaur collection was continued by Mr. P. C. Kaisen. Two preparators spent the entire year on the 1930 Mongolian collection, which is now more than half finished, and two workers continued on the Scarritt-Patagonian collection—the preparation of which is now nearing completion. Three skeletons, one dinosaur and two mammals, were mounted. The more noteworthy restorations of the year are those of the Pignataro elephant (*Hesperoloxodon*) and the shovel-tusked mastodon (*Platybelodon*).

The chief event of the year was the completion of the reconstruction of the Osborn Hall of Tertiary Mammals. The exhibits on the north side of this hall remain for the present much as they have been, but the south side exhibits which were entirely dismantled before the alterations began are now being rearranged, and the first alcove, devoted to the evolution of the horse, has been finished so far as the present casing permits. The titanotheres alcove is now in process of rearrangement.

Several additions have been made to the Mongolian exhibit and the reconstructed Pignataro elephant skull has been placed in the Age of Man Hall.

The most important addition of the year to the exhibition halls was that of the long-delayed *Stegosaurus* skeleton, which has taken its place in the Dinosaur Hall. Two other free mount skeletons, the three-toed horse (*Merychippus*) and the Florida sea-cow (*Hesperosiren*), have been added to the Tertiary Hall exhibits.

Living Invertebrates. During the year 1932, work has continued on the Coral Reef Group to the full extent of the facilities of our department so far as conditions allowed. The great glass background was moved over and anchored, and the coloring upon it started. The painting of the opaque submarine background was nearly completed and the glass for the water surface mirrored and set. Bas-relief coral models were constructed and placed for blending with the background, and other artificial coral arms were made to conceal iron supports. The lower backgrounds were blended with the under side of the water surface by means of colored transparent scene drops. The lighting system for the submarine portion of the group was partly completed and the modeling and painting of fishes was begun. The painting and repairing of various corals was continued, the upper part of the cavern was colored, and a metal apron screen below the water level was constructed.

The group is so huge and the engineering problems connected with it are so complex that each step has to be worked out with great care by original methods. If no unforeseen interruptions occur and the working conditions are unimpaired, it is hoped to complete this group by the end of 1933 or early in 1934.

In the Darwin Hall, 13 invertebrate models have been completed or are in process of preparation. These include 3 models of Protozoa, *Amæba*, *Paramecium*, and *Stylonychia*; a model of the hydroid *Corymorpha* and nine rotifer models prepared as a series to illustrate the comparative anatomy of the internal organs of this group. This entire series was delicately modeled in glass by Herman Mueller and colored by Worthington Southwick. They were prepared under the direction of Curator Miner and Research Associate Frank J. Myers.

Entomology. The exhibition of live insects, which proved to be such a success during the year 1931, was removed to better quarters in the center of the hall, where the lighting facilities and extra space made this exhibit more attractive and of far more value to the student. A popular exhibit which has been added shows

"Beauty Among Insects" representing the most beautiful butterflies and moths found in the six faunal divisions. Our thanks are due to Mr. Frank Johnson for the donation of many of the specimens used in this exhibit. Another feature added to the Insect exhibits is a "Butterfly Calendar," consisting of six large, electrically controlled discs which may be operated by the observer to show the seasonal occurrence and life cycles of several of our common butterflies.

No additional habitat groups have been installed, but work on six of them has progressed to such an extent that in all probability the groups showing the Cotton-boll Weevil, Yucca Moth, Leaf-Cutting Ants, Army Ants, Stingless Bees, and Mourning-cloak Butterfly will be completed and ready for exhibition in the near future.

Ichthyology. Various exhibits made under Dr. Gregory's supervision, in coöperation with the Departments of Comparative Anatomy and of Preparation and Exhibition, were installed in the new Hall of the Natural History of Man, as follows:

Restorations (side and underside views) showing two of the oldest fossil Ostracoderms and Sharks, illustrating the origin of paired fins and girdles. Enlarged model of Black Bass, showing the locomotor organs. Three models of *Caranx*, illustrating successive phases in locomotion. Completion of two models (side and top views) of skeleton of oldest known Ganoid fish (*Cheirolepis*). Model of lobe-finned fish, *Eusthenopteron*. Completion of large wall painting illustrating comparative embryology from fish to man, in which were incorporated enlarged pictures based on Professor Bashford Dean's unpublished plates on the embryology of the Port Jackson Shark. Completion of four enlarged models of the brain of the shark, after Herrick, illustrating the primitive vertebrate brain type.

Ornithology. No new exhibits have been opened during the year, but one representing the Bird Life of the Congo Forest has been virtually completed and will be ready early in the coming year. The material was collected in 1931 by Dr. Chapin, who also made studies in the locale of the group, on a special expedition provided for through the gift of the late Mrs. Dwight Arven Jones.

The English Bird Life Group is under construction from funds donated by Mrs. Carll Tucker. Dr. Chapman, as outlined earlier

in the report, visited England early in the year to study the New Forest where the scene is laid, and Mr. Francis L. Jaques also visited the region to make the artistic studies for the background which he is now painting. Sketches of the species to be included in the group were made by Mr. George E. Lodge, English artist, as a guide for the mounting of the specimens; the group promises to be of exceptional interest.

Mammalogy. Plans for exhibition constituted one of the major claims upon the time of the Curator during the year. Because of the lack of funds, the plans for the new Hall of North American Mammals had to be left in a quiescent stage, and the progress in the new Akeley Hall of African Mammals was retarded, although not completely curtailed, for the same reason.

The close of the year saw the initiation of a move to open the Hall of Ocean Life early in 1933, and this decision was of great moment to the Department of Mammals since so many of the exhibits in this hall are of material belonging to this department. While the Hall could not be opened to the public in its entirety, by far the greater part could be thrown open to visitors, and the number of completed groups, mounts, murals, etc., was sufficiently large to warrant an early opening of the hall. There was, however, no small amount of routine cleaning, renovating mounts, etc., to be carried out.

The completion of the last unit in the habitat group pavilion of the Hall of Primates during 1932, prepared that hall for a re-opening to the general public. Since the central section had been shut off for a long time, an extensive rearrangement of the floor cases was necessary. With the removal of four unoccupied cases, and by the expenditure of but a comparatively small sum in time and labor, it was possible to provide the visitor with a hall which, in many aspects, would convey the impression of being a new one.

Similar plans were made for removing obstacles from the center of the J. A. Allen Hall of North American Mammals, where, over the passage of many years, material has accumulated for want of other quarters; also for opening temporarily the section which will become the future Hall of North Asiatic Mammals.

The extensive rearrangement in these two halls, we feel sure, has greatly enhanced the value of the exhibits.

Comparative and Human Anatomy. The year 1932 has been one of exceptional importance in the history of the department

on account of the opening of the exhibit entitled "An Introduction to Human and Comparative Anatomy." Ever since the foundation of the department in 1921, plans and exhibits for this series have been slowly maturing, but thanks to the liberality of an anonymous friend of the department and to the willing efforts of the Department of Preparation and of the staff of this department, much greater progress on this exhibit was made in 1932 than in all the years preceding it. A special "drive" was made so that the hall could be opened to the public at the time of the Third International Congress of Eugenics, August 21-23, 1932, and at one time twenty-six persons were engaged in the preparation of exhibits.

The general object of the exhibit is to show that man, like other organisms, derives his energy ultimately from the sun; to show how he takes this energy in and how he spends it; to trace the history of anatomy from the nebulous days when it was under the influence of astrology to the time when, thanks to Darwin, the study of anatomy became part of the history of vertebrates in geologic time. The exhibit then goes on to show how and in what respects the lowly shark furnishes an epitome of human anatomy. In the following case the elements of the locomotor system are set forth and in the next the rise of the skeletal system is traced from fish to man. A wall chart explains the relation of the rising scale of living forms to their predecessors in past ages of the earth, while a series of wall paintings by Jaques entitled "Students in Nature's Training School" illustrates the life habits and environments of an ascending series of vertebrates. The next case deals with the maintenance of the upright posture, and this is followed by exhibits illustrating the evolution of the pectoral and pelvic girdles and the comparative anatomy of the hands and feet of Primates. Then follows the embryology of man, with a large wall painting of comparative embryology from fish to man. A long wall case deals with successive stages in the evolution of the face. Another large wall painting shows "Man among the Primates," and is followed by a case dealing with the evolution of skulls, jaws and teeth. The final alcove treats of the elements of the nervous system, the rise of the human brain and the comparative anatomy and functions of the chief parts of the brain. The exhibit ends with a case showing "Neokinesis," the substitution of a government or control of the body by ideas rather than by the direct promptings of sense.

The exhibits for the most part are carefully executed models in colored wax or plaster based upon actual dissections or fossil skeletons. The outstanding exhibits of the hall are the two models of human anatomy by Mr. Christopher Marguglio, beautifully prepared dissections by Associate Curator Raven, and enlarged models of the brain by Mr. Crothers; also the mural paintings by Messrs. Jaques, Stephens, Lewis, Crothers and Ohlman. Expert assistance was given by the engineering division. Miss Marcelle Roigneau, Staff Assistant, constantly assisted the Curator in the supervision and planning of the entire exhibit, and it is to her insight, good judgment and artistic sense that much of the beauty and effectiveness of the exhibit is due.

This exhibit proved at once that anatomy could be freed from gruesomeness, so that men, women and children look upon the exhibits without the least indication of disgust. On the contrary, the hall is often crowded with visitors who show every expression of interest and approval and actually stop to read the long labels,—a thing which Museum visitors have been said not to do. The exhibit evidently fills a real educational need, and many classes from colleges, high schools and art schools are using it.

Several years will be required for the completion of this hall.

Anthropology. No major changes were made in the exhibition halls of the Department during the year; yet, a number of specific additions and revisions were undertaken. For example, the Curator-in-Chief spent part of the summer in New Mexico, during which time he had an opportunity to engage Mr. W. S. Stallings, Jr., and with him worked out for presentation in the Museum, an exhibition demonstrating the dating of ruins in Southwestern United States by the tree ring method, in which logs from the ruins are dated by correlating with the known scale for dating the growth of trees. Under the direction of the Curator-in-Chief, this exhibition is now being prepared for installation in the Southwest Indian Hall by Mr. S. Ichikawa. In the same hall there has been installed an exhibit illustrating the materials as well as the successive steps in pottery-making at San Ildefonso Pueblo, New Mexico. During this year also a chronological chart was prepared summarizing the succession of cultures known to date in Southwestern United States. This chart was prepared under the direction of the Curator-in-Chief by Miss Florence Underwood, a volunteer worker.

In the Pacific Islands Hall, labels prepared by Dr. Margaret Mead before her departure for New Guinea were printed and put in place.

The present interest in pictorial maps led to experimentation in the use of such maps as exhibition hall labels. Three such maps have been prepared and installed, two for North America and one for Africa, depicting the outstanding features of the several culture phases for each continent. These have received favorable comment as additions to the halls in question.

Work in the Natural History of Man Hall has been delayed pending the completion of the cases. This space was used for a temporary exhibition under the auspices of the International Eugenics Congress.

Miss Helen Wall, a volunteer student of education, completed a plan for an exhibit showing the main sequences in the history of writing. It is hoped that some of this exhibit can be installed in the near future.

In the Mexican Hall a special exhibit was arranged, showing casts and photographs of the important objects found in the famous tombs at Monte Alban, thus giving our visitors an opportunity to learn something of this great archæological discovery.

In the Hall for Prehistoric Archæology, the exhibits for southern Alaska and the Columbia River area were completed.

In the Asiatic Hall an exhibit of culture objects for the main divisions of Japanese prehistory was completed, a special display of Japanese sword guards was arranged, and finally, in the Chinese section, a suit of Chinese armor of the Manchu Dynasty was added.

Under this head it may be stated that one of the weakest points in our hall work is the lack of printing service for labels. Many of our new exhibits contain ordinary typewritten labels, difficult for the best of eyes. Until this problem is solved in some way, there can be no improvement in the labeling of our collections.

EDUCATION

In speaking of the Museum's contribution to education, the term *education* is used in its broadest sense. While the Museum's service to technical education includes the intimate contact through our Department of Education with the elementary and secondary schools and with the colleges and universities, it is making contributions to general education through its exhibition halls

and through the lectures, writings, and activities of its scientific staff. In 1932 those activities were maintained at normal.

Throughout the past year, the Department of Education continued to function in coöperation with the public schools and other educational institutions of the vicinity. Appreciating the importance of visual instruction in the education of children as well as adults, we have endeavored to supplement the work of the teacher in the school room and of the professor in the institution of higher learning.

In addition to projects of previous years, we have continued, with encouraging success, several newer activities. Among these are courses offered to teachers of New York City, the need for which is indicated by the fact that they have been greatly over-registered. Upon invitation of New York University, four courses were offered in the spring semester and again in the fall semester, the work of which was entirely conducted at the American Museum, and yet which were considered by the University as residence courses for which college credit was given. Another encouraging development in the work was the increased use of the Museum exhibition halls, under guidance, by college and university classes. Practically all the institutions of higher learning in the metropolitan district, as well as a number from New England and the Middle Atlantic States and more remote points, have availed themselves of the opportunity of enriching their studies by using this supplementary material. This closer coöperation with one of our metropolitan universities is the partial realization of a dream long held by President Osborn.

Another most important and far-reaching phase of our work in adult education was the Museum courses for teachers, which included the following:

1. *Mechanics of Visual Instruction*, conducted by Mr. L. Wales Holden, in which the elementary principles of optics and the working of the stereopticon, motion picture projector, and other apparatus have been taught, with actual laboratory work in every phase.
2. *Foundations of Visual Instruction*, conducted by Mrs. Grace F. Ramsey, which has emphasized the principles of visual instruction together with some emphasis on the practical side of the use of various aids and types of visual apparatus.



McLaughlin Aerial Surveys

The American Museum of Natural History

Photograph taken April 2, 1933, by McLaughlin Aerial Surveys. Foreground: Center, The New York State Roosevelt Memorial; at right, The South Oceanic (Whitney) Wing

3. *Theory and Practice of Visual Instruction*, conducted by Mrs. Ramsey, dealing with the pedagogy of various types of visual aids lent by the Museum.
4. *Nature Study for City Teachers*, conducted by Miss Farida A. Wiley, and given for the first time this year, included considerable field work. The advance applications of teachers for this course, as well as the over-registration, indicate that it fills a real need.

The programs for members of the Evening Elementary School Students' Association continued to attract large numbers of foreign-born adults attending evening classes of the Board of Education. Motion pictures of natural history subjects were offered for first-year students whose acquirement of English was very recent, and lectures and films on American history were given for more advanced students. After the programs the audience visited exhibition halls correlated with the subject of the evening.

Another new activity has been the evenings devoted especially to the students from private schools of the city, with their parents—a project which has been enthusiastically welcomed. In spite of limited budget, we have made a start in the project of branch museums, located in libraries and public schools—four in Queens, three in the Bronx, and two in Manhattan.

Realizing that the most important aids to visual instruction are real objects, we have continued our lending of circulating collections of natural history specimens, which include mounted birds, small mammals, insects, minerals, woods, fabrics, etc. And we have had the satisfaction of feeling that the value of these collections was growing as we better adapted them and branched into new and different fields. Next to real objects come pictures, which include motion pictures, colored lantern slides, and mounted photographs. We have also been lending microscopic slides to high schools, relief globes to blind classes, and star boxes for use in teaching the constellations.

We have taken the Museum to the schools in another way by giving lectures in the schools. On account of lack of funds and limited staff, we have been able to give only a limited number of these, but they have been so well received and attended that it seems clear that here is a great opportunity for expansion in the work of the Department. The outside lectures have included those

at the Training Colleges for Teachers, City College, Hunter College, Washington Irving High School, the New York Parental School, the Psychiatric Institute and others.

The number of pupils attending the exhibition hall talks more than doubled in 1932. A half hour's talk in the Museum classroom, where opportunity is offered to examine and handle materials, is followed by a walk and talk through the particular hall to which the material is related. Other activities were continued, including work with children of defective sight, the Junior Astronomy Club, the Children's Science Fair in coöperation with the American Institute, various courses of lectures at the Museum for pupils in elementary schools and high schools, etc.

The Bear Mountain Trailside Museum Nature Trails and Crafthouse, maintained jointly by the American Museum and the Commissioners of the Palisades Interstate Park, ended its sixth season with a considerable extension of work in several branches. A new trail was built, two new museums were projected, and facilities for added service to the public were developed. Aids to schools, colleges, and universities in field study were maintained throughout the season from May to October. The report for the season, entitled *Trailside Interdependence*, was issued by the American Museum and distributed to nature leaders over the country. Many unsolicited news and magazine articles carried the story of the Trailside Museum. Interest in the project developed constantly, and the idea of "going to nature for nature information" is attracting the attention of natural history institutions with increasing emphasis both at home and abroad.

The photographic division has carried on a most important service to the press, authors, students, and teachers. In this work, photographs have been sent to nearly every state in the Union and to many foreign countries. The reference library of prints has been increased by 2,526, making a total of 124,843 photographs available to the public.

The scope and extent of all these activities of the Department of Education may readily be seen by glancing at the following table of comparative statistics:

	1929	1930	1931	1932
Attendance at lectures, classes and guiding.....	226,608	247,629	226,552	220,482
Children's Science Fair....	25,000	39,250	30,657	37,275
Visitors to Bear Mountain Nature Trails.....	186,000	200,000	283,000	300,000
Contacts made by lending lantern slides.....	8,660,181	15,588,403	17,392,790	17,019,882
Contacts made by lending motion picture films....	1,725,865	3,764,505	7,423,708	10,458,181
Contacts made by lending circulating collections...	1,906,682	3,210,741	2,590,753	3,816,863
	<hr/> 12,730,336	<hr/> 23,050,528	<hr/> 27,947,460	<hr/> 31,852,683

That we have been able to maintain these activities in a time of financial stress is largely due to the generous support of the Carnegie Corporation for adult education and university coöperation, and to the generous gifts of Mr. Felix M. Warburg, which enable us to maintain in full the activities at Bear Mountain as well as to keep up to standard the other activities.

Two other factors were of great importance in enabling the Museum to give greater service than ever to the schools. One was the assistance from eight substitute teachers who were assigned to the Museum by the Board of Education through the kind coöperation of Superintendent Eugene A. Colligan. It is a source of deep regret that, owing to the reduction of the Board of Education's budget, the Board found it necessary to withdraw these substitute teachers at the end of the year. Another factor was that the regular staff of the Museum was supplemented by a number of assistants supplied through the Emergency Work Bureau. These have rendered valuable service; in fact, without their assistance it would have been impossible to continue so fully the circulation of the lantern slides and the motion picture films.

Another important contribution to general education by the Museum has been through the lectures and addresses by staff members, and their attendance at scientific meetings and scientific and educational conferences during the year.

Mineralogy. The Curator has given twice during the year a series of four informal talks on "The Appreciation of Gems." These were designed to supply a cultural background to the Morgan Gem Collection, and especially to interest the general

public in this outstanding collection. In addition, the Curator on a number of occasions, has been called upon to address small groups on various subjects explanatory of the special features of the collections. The attendance of student visitors using the collections for study shows a marked gain over the figures for 1931, and it is significant that such study is concerning itself in increasing proportion with the General Mineral Collection, and with the various crystallization exhibits rather than with the more showy and popularly attractive gem collection.

Entomology. Curator Lutz spent about two months during the summer at Cornell University, giving in the regular schedule a course in Visual Education, for teachers.

Assistant Curator Curran was an instructor in Field Zoölogy at the Cold Spring Harbor Laboratories, during the summer.

Ornithology. Dr. Murphy lectured in England before a number of scientific societies.

Mammalogy. At the annual meeting of the American Society of Mammalogists, in Washington, in May, papers were given by Curator Anthony, Assistant Curators Hatt and Tate, and Research Associate Archbold.

Lectures have been given by Assistant Curator Hatt before the American Association of Anatomists and the Linnaean Society, and Assistant Curator Carter has lectured twice on the experiences of the Legendre Indo-China expedition.

During the year, Assistant Curator Hatt was elected the Corresponding Secretary of the American Society of Mammalogists and Secretary of the section of biology of the New York Academy of Sciences.

Comparative and Human Anatomy. At the Carnegie Museum, Pittsburgh, Mr. Raven gave an illustrated lecture entitled "In Quest of Gorillas" and a similar lecture at Rutgers College, New Brunswick, N. J. At the New York Academy of Sciences on January 11, Mr. Raven spoke on the habits of the great apes, and at the Linnaean Society on "Field Observations on Gorillas and Chimpanzees"; this lecture was given also before the Staten Island Institute of Arts and Sciences and at the Wilderness Club.

Associate Curator Chubb gave five lectures and addresses on various scientific subjects before as many scientific organizations and continued as in former years to spread the science of the horse

among numerous classes and individuals visiting his study collections.

Curator Gregory served as President of the New York Academy of Sciences, President of the Galton Society, member of the Exhibits Committee of the Third International Congress of Eugenics, Vice-President of the American Association for the Advancement of Science and Chairman of Section H (Anthropology). During the year he was made a Foreign Correspondent of the Geological Society of London and a Fellow of the American Academy of Arts and Sciences. Dr. Gregory delivered the retiring vice-presidential address before the American Association, entitled "The New Anthropogeny: Twenty-five Stages of Vertebrate Evolution, from Silurian Chordate to Man," and gave sixteen illustrated addresses on various phases of the evolution of man before the New York Academy of Sciences, the Kings County Medical Society, the International Association of Dental Research and other organizations.

Education. Dr. Fisher has continued to serve as president of several organizations which hold meetings at the Museum—the New York Chapter of the American Nature Study Society, the Amateur Astronomers' Association, the New York Bird and Tree Club, and the John Burroughs Memorial Association. He lectured at the annual banquet of the American Nature Study Society in Atlantic City, in affiliation with the American Association for the Advancement of Science. In November, Dr. Fisher represented President Osborn at the Conference of Universities, celebrating the centennial of the founding of New York University. He has also given many radio talks and written several articles for *Natural History*.

Mrs. Ramsey attended the following meetings and conferences: In January, 1932, a conference of the National Board of Review; in February a conference of the Progressive Schools Association in Baltimore and spoke on "Museum Courses for Teachers"; the annual meeting of Supervisors of Elementary Science in Washington, the National Association of Research in Science Teaching and the annual meeting of the National Academy of Visual Instruction and spoke on "Teacher Training in the Museums of the United States" ; in May the annual meeting of the American Association of Museums in Boston and spoke on "Developing Museum Interests during Adolescence to Carry Through into Adulthood"; in June the meeting of the National

Council of Education in Atlantic City and the annual meeting of the Department of Visual Instruction of the National Education Association; in November an important conference in New York, on "Occupations for Educated Women," by the Southern Educational Alliance, and assisted in the preparation of a section of their report on Museum work; in December the session of the American Nature Study Society in Atlantic City, affiliated with the American Association for the Advancement of Science, speaking on "Stimulating Interest in Nature Study in Leisure Hours from the Museum's Viewpoint."

Mr. William H. Carr spoke at the Summer Meeting of the American Association for the Advancement of Science at Syracuse, N. Y., and directed the installation of the American Museum's Exhibit, representing fourteen departments, also at the Winter Meeting of the same organization in Atlantic City. He also spoke at the Annual Meeting of the National Council of State Parks at Virginia Beach. The Commissioners of the Palisades Interstate Park appointed him Chief Naturalist.

The extra-mural activities in which Miss Bennett represented the Museum were the following: Meetings of the New York Chapter of the American Association for Adult Education, of the Student Council of the Evening Elementary School Students' Association, and of the New York Council in Adult Education; the convention of the American Association of Museums and that of the International Astronomical Congress, in Boston; also the meetings of the American Association for the Advancement of Science and of the American Nature Study Division in Atlantic City.

Miss Wiley spoke on "Nature Study for Teachers" at the Annual Meeting of the American Nature Study Society with the American Association for the Advancement of Science.

III. ADMINISTRATION, OPERATION, BUILDING

GEORGE H. SHERWOOD, Director

WAYNE M. FAUNCE, Assistant Director

Although 1932 saw several of our major building projects brought to completion and there has been a corresponding reduction of activities on account of construction, our Administrative Staff has been exceedingly occupied with an unusual number of internal problems which have been intensified by the demands of drastic economy. It has been said that adversity brings out the best in any man, and this truism applies as well to an administra-

STATISTICS OF NUMBERS REACHED BY THE MUSEUM AND ITS
EXTENSION EDUCATIONAL SYSTEM

	1928	1929	1930	1931	1932
Board of Education Lectures . .	12,342				
Lectures to School Children and classes visiting the Museum for Study	172,549	157,168	214,153	226,552	220,482
Meetings of Scientific Societies and Other Meetings and Lec- tures	27,461	45,936	56,640	20,330	23,042
Total	212,352	203,104	270,793	246,882	243,524
Attendance in Exhibition Halls	688,879	712,529	876,601	882,309	789,741
Total attendance for all Purposes	901,231	915,633	1,147,394	1,129,191	1,033,265
Lectures to Pupils in the Schools	45,718	26,456	19,512	8,248	23,006
Number reached by Motion Picture Service	1,576,249	1,725,865	3,764,505	7,423,708	10,458,181
Number reached by Lantern Slide Service	9,734,122	8,550,181	15,588,403	17,392,790	17,019,882
Number reached by Circulating Collections	2,288,272	1,857,729	3,194,647	2,567,537	3,816,863
Bear Mountain Nature Trails . .				283,000	300,000
Grand Total	14,539,592	13,075,864	23,714,461	28,804,474	32,651,197

tive organization. Due to financial stringency during the past year, every administrative officer has been called upon to carry a heavier burden in the Museum's operation, but there has been constantly in evidence a remarkable spirit of zealous team-work. The Director gratefully acknowledges the valuable contributions made by the heads of our administrative departments—Assistant Director Faunce, Bursar Smyth, Registrar Pindar, Chief of Construction Beers, Chief Engineer Langham and Superintendent Foulke—each has discharged the duties of his office in a masterly fashion and has given the Director instant and whole-hearted support throughout the year in which many perplexing situations have been met. The personnel of these departments has with unanimity of purpose

striven for the advancement of the Museum's work. Their splendid efforts have been efficiently guided and we may well be proud of the accomplishments of 1932.

Through the coöperation of the Museum with the Emergency Work Bureau, approximately seventy-five unemployed workers, who possessed the necessary qualifications to assist in certain lines of our work, were assigned to the Museum. We are very grateful for the service rendered by these emergency workers and for the opportunity which has come to the Museum to aid in relieving the distress among the unemployed.

The foregoing statistics graphically indicate the growth of the Museum's educational contacts during the past five years. Although the attendance in our exhibition halls has fallen off slightly during 1932, as it did also in 1931, the grand total of numbers reached by the Museum in 1932 increased by more than 13% over the 1931 figure. This indicates a growing interest in the Museum's activities and an increased desire to make use of its valuable facilities.

PUBLICITY

In this period of world transition resulting from the great advances made by science in the industrial world, we are faced with the problem of an unusual increase in leisure time. We do not here refer to leisure as the result of world depression, but that which will come from shorter working hours, in the future. Museums which offer educational facilities to the public will recognize the importance of adapting their work to meet these altered conditions. Among these, publicity by means of the daily press, together with the radio, will play an increasingly large part. If we do not employ these vehicles in spreading our scientific and educational work, we shall be outdistanced by the museums which do make use of them.

Through the courtesy of the press we have been able to distribute many events and unusual occurrences in the Museum. The press frequently calls upon us for information, too, concerning discoveries happening in other parts of the world and reported to it through member agencies. To be able to assist the press in this work has added in no slight degree to the pressure placed upon the department because of the unusual demands of these agencies, but this close coöperation should be recommended as an important



Congo Bird Group

Illustrating the Bird Fauna of a Tropical Forest in Africa

Sixth completed group in a series of twelve for the Hall of Habitat Groups of the World

phase of publicity. Articles have been well received and many contacts have been formed which aid us in our work in no small degree.

The Committee on Press and Public Information in the early autumn of 1932 suggested the need for the establishment of an extended news and radio service, and upon the recommendation of Director Sherwood, additional assistance was given to the Committee. Contact was then made with the two large broadcasting companies in this city for a series of talks by members of the Staff, those with the National Broadcasting Company being finished after completing three. A series was entered upon with the Columbia Broadcasting System, starting on October 27, and continuing through March, 1933. These talks have been given each Thursday at 2:15 P.M., on a coast to coast network and the many hundreds of letters received attest to the extraordinary interest they have aroused. The talks were arranged in connection with the American School of the Air program now in its fourth successful year, and the publicity acquired was of inestimable value.

The tendency has been to regard radio as a field of amusement and it has been felt that people would not listen to serious addresses on a high educational level. The responses to our talks go to disprove this decidedly. We are finding a growing audience that calls for more and more information about the Museum and its work. We should not fail these eager listeners. Thus far, we have had thousands of replies coming from every state in the Union, and the provinces of Canada.

As has been our practice for a number of years, we have supplied articles for encyclopedias, almanacs, guides and other publications both at home and abroad. Post cards, souvenirs and leaflets pertinent to the Museum's exhibits have also been furnished, and we have acted as the liaison office between the museum and schools, clubs, libraries and with other museums.

The Committee wishes to express its appreciation to those members of the staff who have entered so whole-heartedly into this effort to extend to the outside world information of what is occurring within the walls of this great Museum. Our cordial thanks are likewise due to the press and to the Columbia and National Broadcasting Systems for the generous coöperation given us in carrying out our work.

PROGRESS OF CONSTRUCTION DURING 1932

Early in 1932 the new African Section was completed and turned over to the Museum. Already substantial progress in the installation of exhibition cases has been made on two floors of this splendid building. The City of New York appropriated \$85,000, for the partial casing of the Akeley Memorial African Hall on the second floor and for the cases required in the Jurassic Dinosaur Hall on the fourth floor. The installation of the laboratory equipment and furniture on the sixth and seventh floors, which are to be devoted entirely to biological research, is going forward rapidly under a City contract. Funds are not available to complete the equipment of the African Section, but it is expected that New York City will provide the necessary amount as soon as municipal financing returns to normal.

By February 1, 1933, it is expected that the construction of the South Oceanic (Whitney) Wing will be completed. The Bird Department is already preparing plans for the equipment of this magnificent building. Intensive study has been applied to the development of a new type of dust-proof metal storage case for the bird ranges. Approximately 2,000 of these cases will be required and the best technical advice has been obtained to insure the finest and most practical design.

The Roosevelt Memorial Building will shortly be roofed over and the finish of the interior can be started. The completion of the Memorial will provide direct access from the Museum to the new Eighth Avenue subway which commenced operation September 10. This convenience will be greatly appreciated by the thousands of visitors who will come to the Museum by the new subway route.

The outstanding improvement in the older portion of the Museum has been the complete renovation, redecoration and relighting of the Fossil Mammal Hall on the fourth floor. This work was financed by an appropriation of \$20,615 made in 1930 by the Board of Estimate and Apportionment of the City of New York. New exhibition cases have been constructed and the collections have been rearranged. By action of the Trustees the hall has been designated "The Osborn Hall of the Age of Mammals," in honor of Honorary Curator Henry Fairfield Osborn of the Department of Vertebrate Palæontology.

The installation of cases and the incidental lighting in the Natural History of Man Hall were finished in time for the partial

opening of the hall on the occasion of the Third International Congress of Eugenics held in the Museum August 21 to 23. The live insect exhibits have been relocated in the center of the Insect Hall and the general lighting of this hall has been greatly improved, notably enhancing the educational value of the wonderful insect collections. The new power plant in the lower floors of the Power and Service Building is now functioning efficiently, indeed, with notably greater economy than our old plant, although there was nearly an 8% increase in the power output during 1932.

Some sections of the Museum building are from thirty to fifty years old and it is to be expected that they would require a disproportionate amount of maintenance and that time-consuming and expensive repairs would be obligatory. There has been an abnormal amount of this sort of work during the past year. Our Construction and Engineering Departments have loyally striven to keep up with the demands of our enlarged building, but the fact that our appropriation for the maintenance of the building is quite inadequate becomes increasingly evident.

In addition to the general work of maintaining the Museum plant, a large amount of miscellaneous construction and engineering work has been completed. Approximately 95% of our electrical distribution has been converted to the modern three-wire system. The First Aid Room has been moved to a new central location near the auditorium on the first floor. The old Engine Room has been converted into an exhibition hall providing splendid space for the pure food and public health collections. New exhibition cases have been built for the Darwin Hall. Additional habitat group cases have been completed on the second floor in the Hall of Birds of the World. A special dining room for employees has been provided adjacent to the cafeteria in the School Service Building. New forced ventilation has been installed in the paint shop. Preparations for various scientific meetings at the Museum and for special temporary exhibits have necessitated considerable work. On recommendation of the Museum's Safety Committee a number of hazardous conditions in the Museum shops have been corrected.

REPORT OF THE REGISTRAR

The year 1932 has witnessed increased activity in the office of the Registrar, for in addition to the usual care of accessions and the shipping for the Museum, added efforts have been made in

our public relations in order that people who have enforced leisure may know of and employ the vast resources of the Museum, while in these days of continuous change and new scientific discoveries, the Museum must work unceasingly to widen its circle of new friends, while providing for the needs of the old friends.

During the year 1932, the accessions were approximately 882, covering 669 gifts, 97 purchases, 23 transfers from one department to another, 37 exchanges, and 56 from expeditions. A carefully administered system of recording accessions is a great essential in an institution like the American Museum, consisting as it does of eighteen major departments, undergoing continuous growth and development. The Registrar would here take opportunity to express his appreciation of the cordial coöperation given by the members of the various departments to Miss Dorothy Dockstader, who handles this particular branch of the work with the efficiency necessary to its proper prosecution.

The work of the shipping department shows very little sign of lessening, in spite of the economic stringency. During the year, 4,049 incoming shipments, consisting of 11,769 pieces, were handled by Chris Schroth and his assistants, while 2,997 were sent out necessitating the handling and packing of 5,613 pieces. There were also 50 bonded shipments of 316 pieces to be checked and delivered to respective departments. In addition, Mr. Schroth covered 4,165 miles with his truck, making in all 485 stops.

The work of the Pension Fund, which is in the hands of Mr. Pindar as Secretary, has occupied much of his time and thought this year, and numerous conferences have been held with Mr. Warburg, the Chairman of the Pension Board, and with Mr. Delafield as counsel, in the settlement of several important points in connection with the rules, a fuller discussion of which will be found in the Pension Report for 1932.

IV. FINANCIAL ADMINISTRATION

JAMES H. PERKINS, Treasurer

FREDERICK H. SMYTH, Bursar

PERMANENT ENDOWMENT FUND, 1932

During the year the Finance Committee, with its Advisers, reviewed the list of the Museum's holdings on various occasions. In view of existing conditions it was felt advisable to strengthen the portfolio and improve the diversification by making certain changes. The Treasurer, who is also Chairman of the Finance Committee, reports that during the year 1932, by sales, redemptions, and amortization payments, the Committee disposed of securities amounting to a book value of \$2,427,343.52 for \$1,648,436.19. With these proceeds and with the cash bequests received, the Committee purchased securities of a par value of \$2,183,900.00 at an aggregate cost of \$1,654,015.00.

Our Endowment Fund on December 31, 1932, amounted to a book value of \$14,694,282.50, comparing with the previous year as follows:

	December 31, 1932	December 31, 1931
Railroad Bonds.....	\$7,462,224.75	\$7,897,912.25
Public Utility Bonds.....	3,955,631.75	3,903,642.00
Industrial Bonds.....	935,581.25	1,277,015.50
Industrial Stocks.....	502,930.50	499,430.50
Government Bonds.....	122,823.44	45,295.32
Investment Trust Bonds.....	201,352.50	296,052.50
Real Estate Mortgages.....	1,450,700.00	1,474,100.00
	<u>\$14,631,244.19</u>	<u>\$15,393,448.07</u>
Uninvested Cash.....	63,038.31	1,424.35
	<u>\$14,694,282.50</u>	<u>\$15,394,872.42</u>

The market value of the securities, according to a compilation made in December, 1932, is \$11,982,527.00, a decrease from book value of 18.1%.

Although the recording of substantial losses on the securities sold resulted in a reduction in the book value of the Endowment Fund of \$700,589.92 for the year, the Committee endeavored, where possible, to purchase bonds selling at discounts in order to maintain the par value of the portfolio, the net shrinkage in par value as the result of the changes amounting to \$381,000.00.

The annual income from our Endowment (including \$3,000.00 estimated on the Cash Balance of December 31, 1932) is \$714,-166.92, a yield of 4.86% of the value at which the securities are carried on our books, compared with a yield of 4.93% in 1930 and 4.86% in 1931. The income at December 31, 1932, when compared with that of January 1, 1932, shows a reduction of \$36,930.40, which is caused by reduced dividends on stocks amounting to \$9,991.40, and the balance by changes in security holdings.

In conclusion, the Chairman wishes to call the Board's attention to important gratuitous assistance rendered the Museum by our Financial Advisers, Messrs. Arthur M. Anderson and Moreau Delano, who have given a great deal of study to the Museum's holdings.

SUMMARY OF ALL ACCOUNTS

We have found that it is necessary for us to show a summary of all accounts for the year, in order that the reader may be able to see a picture of our total receipts and disbursements, as shown by the financial report, and not have to go over each item to find the totals.

The following statement shows the total of our budgetary accounts—that is, City Maintenance, General, and Morris K. Jesup Fund, which are the main sources of income of the Museum, and we are including in the total the Special Funds, which can be used only for specific purposes.

Of the total receipts of \$1,920,547.96, the Budgetary Accounts are \$1,349,957.71, and the Special Funds Account is \$570,590.25.

SUMMARY OF RECEIPTS AND DISBURSEMENTS FOR ALL PURPOSES, 1932

Receipts

City of New York for Maintenance.....		\$546,691.83
Trustees' Funds:		
Balance, January 1, 1932.....		\$188,451.27
Income from Endowment Funds.....	\$742,085.95	
Contributions of Trustees.....	66,164.27	
Contributions of Members and Friends.....	287,398.72	
Membership Dues.....	55,394.00	
Sale of Publications and Exchanges.....	12,976.38	
Interest on Credit Balances.....	1,335.54	
Contributions of Foundations.....	20,000.00	
Group Preparation, General Preparation.....	50.00	1,185,404.86
Total Income, Trustees' Funds.....		\$1,373,856.13
Total Income, all sources.....		\$1,920,547.96

Disbursements (Operating Costs)

Scientific and Research:

Geology and Invertebrate Palæontology.....	\$15,515.84
Mineralogy.....	9,842.33
Mammalogy.....	39,017.03
Central Asiatic Exploration and Research.....	35,387.39
Ornithology.....	277,601.80
Vertebrate Palæontology.....	69,243.21
President Osborn's Science Fund.....	5,017.33
Comparative Anatomy.....	20,620.45
Anthropology.....	50,624.44
Ichthyology.....	18,147.69
Herpetology and Experimental Biology.....	33,931.93
Lower Invertebrates.....	14,625.89
Entomology.....	22,363.46
Library.....	29,625.55
Astronomy.....	3,368.93
	<u>\$644,933.27</u>

Printing, Books and Publications:

Printing and Publishing.....	\$101,278.63
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Preparation and Exhibition:

Preparation and Exhibition.....	\$134,541.80
Vertebrate Palæontology.....	20,600.24
	<u>\$155,142.04</u>

Educational—Public School Work:

Public Education.....	<u>\$95,514.72</u>
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Administration and Operation:

Administration.....	\$321,190.44
General Supplies and Expenses.....	46,376.92
Heating and Lighting.....	130,793.96
Repairs and Installation.....	84,082.12
Special Repairs.....	29,009.51
Pension Fund.....	32,724.40
Engineers' Services.....	4,825.00
Architects' Services.....	1,214.76
Group Life Insurance.....	9,249.04
Museum Restaurant Equipment.....	97.26
Legal Services.....	2,863.48
Interest on Bank Loans.....	3,005.42
Financial Administration.....	83,388.51
	<u>\$748,820.82</u>

Total, all costs..... \$1,745,689.48

Balance, December 31, 1932..... \$174,858.48

BUDGETARY FUNDS OF 1932

In January the Trustees approved of a balanced budget of \$1,387,421.85, and instructed the Director and Bursar to keep all disbursements within the authorized amount. It is a pleasure to report that this was accomplished far better than anticipated, and the Museum closed its books with all bills paid, with cash sufficient to meet obligations and contracts of 1932 carried forward to 1933, and was able to apply unexpended cash of \$4,982.51 to the outstanding deficit of 1931, reducing it to \$24,902.17.

The result was attained in the face of severe losses of a total of \$47,128.97, which was reduced by contributions from friends, etc., of \$9,664.83, a net loss of \$37,464.14. Economies in operation, and careful attention to the needs of the Museum, enabled us to reduce the disbursements by \$42,446.65, and allowed \$4,982.51 for the liquidation, in part, of the deficit of 1931, balancing our accounts for the year.

CONTRIBUTIONS FOR GENERAL PURPOSES

The printed financial statement does not allow sufficient space to show all our contributors for general purposes. We are, therefore, showing here the contributors and amounts not listed in the financial statement, and gratefully acknowledge these contributions.

Anonymous.....	\$19.00	Dederer, Miss Pauline H.....	\$2.00
Albert, Mrs. Sigmund S.....	5.00	Delafield, Lewis L., Jr.....	10.00
Andrews, Miss Charlotte L.....	10.00	Demarest, Dr. Peter E.....	10.00
Appleby, Mrs. John Storm.....	25.00	Derr, Mrs. Andrew F.....	25.00
Barnes, H. H., Jr.....	10.00	Dexter, Miss Eunice W.....	10.00
Barton, Dr. Donald C.....	5.00	Dribben, S. F.....	10.00
Baum, Mrs. Dwight J.....	10.00	Elmhirst, Mrs. Leonard Knight...	25.00
Beers, Miss M. Elisabeth.....	10.00	Embury, Miss Emma C.....	10.00
Belden, Jessie.....	10.00	Emmet, C. Temple.....	10.00
Bernheim, Dr. Alice R.....	25.00	Ferguson, Miss Eleanor.....	10.00
Bernheim, Henry J.....	50.00	Field, E. B.....	10.00
Berolzheimer, A. C.....	2.00	Frissell, A. S.....	10.00
Bevans, Mrs. George E.....	10.00	Frost, Mrs. Frank J.....	5.00
Bijur, Samuel H.....	10.00	Frost, Miss Mary Frye.....	5.00
Black, Mrs. R. Clifford.....	25.00	Frost, Mrs. Newton A.....	10.00
Boettger, Theodore.....	20.00	Gans, Howard S.....	10.00
Boise, Charles Watson.....	10.00	Garver, Chauncey B.....	25.00
Brune, E. P., Sr.....	3.00	Gerdes, Mrs. August M.....	5.00
Burdett, Mrs. Frederick T.....	20.00	Ginsburg, S. R.....	5.00
Burghard, Frederick J.....	25.00	Graham, Charles V.....	10.00
Burlingham, Mrs. Charles.....	10.00	Hachtel, Dr. Frank Wilson.....	5.00
Burr, Mrs. J. H. Ten Eyck.....	5.00	Halbach, Ernest K.....	10.00
Cannon, Charles M.....	25.00	Hammond, Edward C.....	10.00
Capron, Mr. and Mrs. C. Alexander	10.00	Harmon, Mrs. Benedict.....	15.00
Carman, Wm. W.....	25.00	Harriman, Mrs. J. Low.....	64.00
Casey, Edward Pearce.....	10.00	Harris, Rev. John U.....	5.00
Chandler, Miss Alice G.....	5.00	Hauswirth, Dr. Louis.....	20.00
Chapman, Mrs. John Jay.....	25.00	Hencken, Hancke.....	25.00
Cheney, Louis R.....	10.00	Heye, Carl T.....	10.00
Chester, Hawley T.....	10.00	Hills, Mrs. George F.....	5.00
Chubb, Mrs. Hendon.....	10.00	Hilyard, George D.....	25.00
Church, E. D.....	20.00	Hochschild, Harold K.....	50.00
Church, George H.....	25.00	Johnson, Mrs. S. Pitney.....	10.00
Clark, Edward J.....	5.00	Kane, Mrs. De Lancey.....	10.00
Clarke, Mrs. E. A. S.....	5.00	Kappes, Herman.....	50.00
Cullman, Mrs. Joseph F.....	10.00	Kingman, Eugene.....	10.00
Cutcheon, F. W. M.....	10.00	Klaman, Philip.....	10.00
Davis, Gherardi.....	50.00	Knight, Arthur S.....	5.00
Dearborn, D. B., Jr.....	5.00	Knoedler, Roland F.....	10.00
de Camp, L. Sprague.....	10.00	Kohnstamm, Joseph.....	25.00
Deckers, M. J.....	6.00	Kosmopoulos, Leslie Walker.....	12.00

Kuhn, Tom.....	\$1.00	Sargent, Dr. Ara Nathaniel.....	\$5.00
Kuroda, Dr. Nagamichi.....	3.00	Schiff, John M.....	25.00
Lambie, William S.....	10.00	Scott, Mrs. W. Clement.....	5.00
Lamont, Thomas S.....	10.00	Shepard, Finley J.....	50.00
Lanier, Reginald B.....	10.00	Sibley, Mrs. H. W.....	25.00
Leewitz, Adolph.....	5.00	Sidman, Edgar N.....	10.00
Lehmaier, James M.....	10.00	Skeel, Mrs. Roswell, Jr.....	10.00
Lehman, Mrs. Arthur.....	25.00	Smith, F. Drexel.....	5.00
Lewis, Mrs. August.....	10.00	Smith, Dr. Morris K.....	10.00
Lips, Hermann J.....	20.00	Smith, Miss N. M.....	25.00
Littauer, Lucius N.....	10.00	Spitzner, Geo. W.....	10.00
Livingston, Henry S.....	10.00	Stafford, Mrs. Wm. Frederick.....	50.00
Lovejoy, F. W.....	10.00	Steiner, Mrs. Milton S.....	10.00
Lundquist, Miss G.....	10.00	Stevens, Mrs. Frederick Waeir.....	10.00
Lusk, Miss Anna H.....	10.00	Stiefel, Walther Albert.....	25.00
Maddock, John B.....	25.00	Streuli, Charles A.....	10.00
Magee, Geo. W.....	10.00	Sullivan, Mrs. James.....	5.00
Maxey, Mrs. Thomas S.....	5.00	Swan, Mrs. J. Andrews.....	50.00
McCullough, W. G.....	10.00	Taylor, Miss Emma Fellowes.....	5.00
McIntosh, Miss Marjorie.....	10.00	Thomas, Abel Cary.....	50.00
Mechling, Edward A.....	5.00	Tiedemann, Mrs. Theodore.....	10.00
Morgan, Henry.....	25.00	Tilford, Mrs. Henry M.....	10.00
Moschowitz, Dr. Eli.....	5.00	Tower, Mrs. J. Emmet.....	5.00
Mosman, Philip A.....	15.00	Untermeyer, Elise S.....	10.00
Mott, Mrs. John B.....	20.00	Vaughan, Mrs. Henry G.....	25.00
Nairn, John J.....	1.00	Vaughan, Mrs. Jay W.....	5.00
Norman, Bradford, Jr.....	10.00	Vose, C. R.....	10.00
Oesterreicher, S. I.....	10.00	Walker, Miss Miriam Dwight.....	25.00
O'Neil, Mrs. James.....	10.00	Washburn, C. Fred.....	3.00
O'Neil, Mary E.....	10.00	Watts, S. H.....	10.00
Oppenheimer, David E.....	10.00	Weeks, Carl.....	15.00
Perkins, Prof. Henry A.....	10.00	Wheeler, Dr. John B.....	5.00
Pierrepoint, Miss Anna J.....	10.00	Whiting, Miss Gertrude.....	20.00
Pierrepoint, Miss Julia J.....	20.00	Wilkie, John L.....	10.00
Pitman, Harold A.....	10.00	Williams, David W.....	10.00
Platt, Emilie L.....	2.00	Wilson, Miss Antoinette.....	5.00
Reynolds, Marcus T.....	3.00	Wilson, Orme.....	25.00
Richards, Henry.....	10.00	Wood, John.....	1.00
Rival, Peter.....	10.00	Woodward, Dr. Lemuel Fox (In memory of).....	15.00
Robinson, Karl H.....	10.00	Woolf, Mrs. Florence K.....	5.00
Rotch, Mrs. Morgan.....	3.00	Zinsmeister, Mrs. Elsie Ahrens.....	5.00
Rottschaefer, Henry.....	3.00		
Rubel, C. Adrian.....	10.00		
			<u>\$2,258.00</u>

FINANCIAL STATEMENT, 1932

ENDOWMENT AND INVESTMENT

	Par Value	Book Value
UNRESTRICTED ENDOWMENT FUNDS:		
General Endowment Fund.....	\$1,822,400.00	\$1,775,917.98
George F. Baker Fund.....	211,600.00	139,311.10
Wood Fosdick Fund.....	910,150.00	894,489.19
Anna M. Harkness Fund.....	989,700.00	978,030.82
Collis P. Huntington Fund.....	50,000.00	50,088.05
John D. Rockefeller, Jr., Fund.....	904,250.00	1,116,799.00
The Sage Fund.....	1,641,400.00	1,485,205.77
Sixtieth Anniversary Endowment.....	1,331,250.00	1,369,714.25
RESTRICTED ENDOWMENT FUNDS:		
Morris K. Jesup Fund.....	5,823,100.00 }	5,795,914.47
	£110,000 }	
Anthropology Special Fund.....	1,100.00	1,083.25
James Arthur Research Fund.....	37,700.00	30,991.25
Matilda W. Bruce Fund.....	12,000.00	12,002.00
Bashford Dean Ichthyological Library Fund.....	4,100.00	3,898.50
Anson W. Hard Library Fund.....	5,100.00	5,109.50
J. P. Morgan Fund.....	477,150.00	444,402.01
Osborn Palæontologic Research Fund.....	4,000.00	3,218.75
Physical Anthropology Fund.....	12,200.00	11,564.00
	1,000.00 }	9,995.00
Margaret Olivia Sage Fund.....	£2,000 }	
The 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.....	23,100.00	22,348.55
Vertebrate Palæontology Field Fund.....	25,500.00	25,000.75
Vertebrate Palæontology Special Fund.....	1,100.00	1,083.25
Frederick G. Voss Anthropology and Archæology Fund.....	307,800.00	300,054.50
Wallace Memorial Fund.....	14,000.00	14,274.50
RESTRICTED INVESTMENT FUNDS:		
African Hall Preparation Special Fund.....		50,000.00
The Boyce Thompson Mineral Collection Installation Fund.....	12,400.00	12,400.00
	\$14,701,400.00 }	\$14,631,244.19
	£112,000 }	
Uninvested Cash.....		63,038.31
		<u>\$14,694,282.50</u>

ENDOWMENT AND INVESTMENT ACCOUNT

Receipts and Disbursements, 1932

GENERAL ENDOWMENT FUNDS—(Unrestricted Funds):

	Balance Jan. 1, 1932	Receipts	Disbursements	Balance Dec. 31, 1932
General Endowment Fund:	\$59.33			
Sale and Redemption of Securities		\$164,161.86		
Purchase of Securities			\$164,191.62	\$29.57
George F. Baker Fund:	706.25			
Sale of Securities		255,029.77		
Purchase of Securities			255,735.00	1.02
Wood Fosdick Fund:	69.79			
Sale and Redemption of Securities and Amortization Payments		118,965.75		
Purchase of Securities			118,982.00	53.54
Anna M. Harkness Fund:				
Sale and Redemption of Securities		148,293.75		
Purchase of Securities			148,275.00	18.75
John D. Rockefeller, Jr., Fund:	76.56			
Sale of Securities		242,170.75		
Purchase of Securities			242,178.50	68.81
The Sage Fund:				
Sale of Securities and Amortization Payments		196,712.81		
Purchase of Securities			196,706.00	6.81
Sixtieth Anniversary Endowment:	148.60			
Bequest of:				
William Colgate		30,000.00		
*James Gaunt		14,551.19		
J. Christian G. Hupfel		2,000.00		
Mortimer L. Schiff		20,000.00		
Sale of Securities		164,997.49		
Purchase of Securities			177,631.13	
	\$148.60	\$231,548.68	\$177,631.13	\$54,066.15
Total General Endowment	\$1,060.53	\$1,356,883.37	\$1,303,699.25	\$54,244.65

SPECIAL ENDOWMENT FUNDS—(Restricted Funds):

Morris K. Jesup Fund:	\$108.22			
Sale of Securities		\$224,120.19		
Purchase of Securities			\$224,178.25	\$50.16
J. P. Morgan Fund:				
Sale of Securities		70,616.95		
Purchase of Securities			70,615.00	1.95
Osborn Palaeontologic Research Fund:				
Sale of Securities		2,751.25		
Purchase of Securities			2,708.75	42.50
Carried Forward	\$108.22	\$297,488.39	\$297,502.00	\$94.61

*Securities were received to the amount of \$7,602.50 on account of Bequest of James Gaunt.

ENDOWMENT AND INVESTMENT ACCOUNT

(Continued)

	Balance Jan. 1, 1932	Receipts	Disbursements	Balance Dec. 31, 1932
Brought Forward.....	\$108.22	\$297,488.39	\$297,502.00	\$94.61
Physical Anthropology Fund:	81.23			81.23
Ralph Winfred Tower Memorial Fund:				
Sale of Securities.....		5,796.50		
Purchase of Securities.....			5,717.50	79.00
Sixtieth Anniversary Endowment:				
James Arthur Research Fund:				
Sale of Securities.....		31,070.62		
Purchase of Securities.....			30,991.25	79.37
Bashford Dean Ichthyological Library Fund:				
Sale of Securities.....		3,748.50		
Purchase of Securities.....			3,705.00	43.50
Vertebrate Palaeontology Field Fund:	46.25			46.25
Wallace Memorial Fund:				
Bequest of Bonnie W. LeClear		20.00		20.00
Total Special Endowment	\$235.70	\$338,124.01	\$337,915.75	\$443.96

SPECIAL INVESTMENT FUNDS—(Restricted Funds):

The Boyce Thompson Mineral Collection Installation Fund:	\$128.12			
Transfer from Special Funds		\$621.58		
Sale of Securities.....		20,000.00		
Purchase of Securities.....			\$12,400.00	\$8,349.70
	\$128.12	\$20,621.58	\$12,400.00	\$8,349.70
Total Special Investment	\$128.12	\$20,621.58	\$12,400.00	\$8,349.70

SUMMARY

General Endowment Funds....	\$1,060.53	\$1,356,883.37	\$1,303,699.25	\$54,244.65
Special Endowment Funds....	235.70	338,124.01	337,915.75	443.96
Special Investment Funds....	128.12	20,621.58	12,400.00	8,349.70
Total Endowment and Investment.....	\$1,424.35	\$1,715,628.96	\$1,654,015.00	\$63,038.31
Interest on Credit Balances:				
Interest earned to December 31, 1932.....		\$1,057.82		
Transferred to General Account			\$1,057.82	
	\$1,424.35	\$1,716,686.78	\$1,655,072.82	\$63,038.31

CITY MAINTENANCE ACCOUNT*

Receipts, 1932

Capital Fund:

Balance, January 1, 1932.....		\$15,000.00
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Department of Parks, City of New York:

Salaries, Regular Employees.....	\$452,056.08	
Salaries, Temporary Employees (Special Repairs).....	16,950.00	\$469,006.08
Expenses for Other Than Personal Service:		
1410 Fuel Supplies.....	\$28,236.00	
1411 Office Supplies.....	7,412.00	
1412 Laundry, Cleaning and Disinfect- ing Supplies.....	2,824.00	
1413 Motor Vehicle Supplies.....	1,412.00	
1414 Educational and Recreational Supplies.....	1,765.00	
1415 General Plant Supplies.....	6,000.00	
1416 Wearing Apparel.....	1,765.00	
1417 Office Equipment.....	1,059.00	
1418 General Plant Equipment.....	1,412.00	
1419 General Plant Materials.....	13,412.00	
1420 Special Repairs (Building Materials)	3,917.75	
1421 Repairs and Replacements.....	2,824.00	
1422 Telephone Service.....	2,682.00	
1423 Fixed Charges and Contributions..	2,965.00	77,685.75

Total net receipts for the maintenance of all departments.....		546,691.83
		<u>\$561,691.83</u>

*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 1932, amounting to \$342,000.00, has been met from the Trustees' General Account.

CITY MAINTENANCE ACCOUNT

Disbursements, 1932

Administration and Operation:

Administration.....	\$259,467.43	
General Supplies and Expenses.....	18,347.13	
Heating and Lighting.....	90,628.95	
Repairs and Installation.....	54,171.50	
Special Repairs.....	20,799.76	
Financial Administration.....	22,517.50	\$465,932.27

Scientific and Research:

Geology and Invertebrate Palaeontology..	\$1,594.93	
Mineralogy.....	2,677.87	
Mammalogy.....	4,651.93	
Ornithology.....	5,713.03	
Vertebrate Palaeontology.....	3,042.50	
Comparative Anatomy.....	905.48	
Anthropology.....	6,218.03	
Ichthyology.....	2,290.45	
Herpetology and Experimental Biology...	2,500.00	
Lower Invertebrates.....	5,108.02	
Entomology.....	3,575.00	
Library.....	7,833.52	46,110.76

Printing, Books and Publications:

Printing and Publishing.....	8,140.59
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Preparation and Exhibition:

Preparation and Exhibition.....	4,271.85
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Educational—Public School Work:

Public Education.....	22,236.36
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Total net disbursements for the maintenance of all departments.....\$546,691.83

Capital Fund:

Cash Balance, December 31, 1932.....	\$12,502.03	
Bills awaiting reimbursement from Department of Parks, December 31, 1932.....	2,497.97	15,000.00
		<u>\$561,691.83</u>

GENERAL ACCOUNT

Receipts, 1932

Balance, January 1, 1932		
Cash.....		\$214,409.13
Loans Receivable:		
Sixtieth Anniversary Endowment.....	\$82,404.12	
African Hall Construction.....	33,302.07	
Authorized Deficit 1931.....	29,884.68	145,590.87
		<u>\$360,000.00</u>
Reserved for Payment of Bank Loans.....		350,000.00
Available Cash.....		\$10,000.00
Income from General Endowment Fund.....	\$90,007.60	
Income from George F. Baker Fund.....	13,537.14	
Income from Wood Fosdick Fund.....	52,598.07	
Income from Anna M. Harkness Fund.....	49,621.32	
Income from Collis P. Huntington Fund.....	2,499.50	
Income from Charles M. Jesup Trust Fund.....	4,542.98	
Income from John D. Rockefeller, Jr., Fund.....	50,833.64	
Income from The Sage Fund.....	81,463.61	
Income from Sixtieth Anniversary Endowment.....	65,183.08	
Interest on Credit Balances.....	1,335.50	
Life Members.....	600.00	
Sustaining Members.....	5,450.00	
Annual Members.....	36,840.00	
Associate Members.....	12,504.00	
Sale of Publications.....	4,422.70	
Subscriptions to Natural History.....	2,087.60	
Sales and Exchanges.....	1,738.84	
Contributions of Trustees for General Purposes:		
Clarence L. Hay.....	\$1,000.00	
Felix M. Warburg.....	10,000.00	11,000.00
Contributions for General Purposes:		
Anonymous.....	\$500.00	
Mrs. Daniel Beckwith.....	500.00	
Walter B. Congdon.....	150.00	
Lewis H. Farlow.....	100.00	
Mrs. William M. FitzHugh.....	100.00	
Mrs. J. K. Fraser.....	100.00	
John Hubbard.....	100.00	
Joseph P. Knapp.....	100.00	
T. W. Lamont.....	250.00	
John Markle.....	100.00	
Mrs. James McLean.....	1,000.00	
Arthur N. Milliken.....	100.00	
Mrs. Paul Moore.....	100.00	
G. A. Pfeiffer.....	2,021.33	
Miss Grace Scoville.....	100.00	
Jean Walker Simpson.....	100.00	
Miss Cornelia Zabriskie.....	100.00	
Other Contributors (see special listing, page 83).....	2,258.00	7,779.33
Contributions for Special Purposes:		
Carnegie Corporation of New York.....	\$5,000.00	
Cleveland H. Dodge Foundation, Inc.....	5,000.00	10,000.00
Subscriptions for Group Preparation (transferred from Special Funds).....		50.00
Total net receipts for the development of all departments.....		<u>\$514,094.91</u>
African Hall Construction Loan (transferred from General Account).....		7,815.12
		<u>\$521,910.03</u>

GENERAL ACCOUNT

Disbursements, 1932

Administration and Operation:

Administration.....	\$61,723.01	
General Supplies and Expenses.....	28,029.79	
Heating and Lighting.....	40,165.01	
Repairs and Installation.....	29,910.62	
Special Repairs.....	8,209.75	
Architects' Services.....	1,214.76	
Engineers' Services.....	4,825.00	
Legal Services.....	2,863.48	
Museum Restaurant Equipment.....	97.26	
Pension Fund.....	32,724.40	
Group Life Insurance.....	9,249.04	
Interest on Bank Loan.....	3,005.42	
Financial Administration.....	60,871.01	\$282,888.55

Scientific and Research:

Geology and Invertebrate Palæontology..	\$5,311.18	
Mineralogy.....	1,320.00	
Mammalogy.....	5,474.70	
Ornithology.....	5,778.07	
Central Asiatic Exploration and Research	1,673.08	
Vertebrate Palæontology.....	3,472.84	
Comparative Anatomy.....	3,538.99	
Anthropology.....	5,206.65	
Ichthyology.....	5,026.15	
Herpetology and Experimental Biology....	6,225.35	
Lower Invertebrates.....	4,108.09	
Entomology.....	8,111.17	
Library.....	10,848.77	
Astronomy.....	3,306.12	69,401.16

Printing, Books and Publications:

Printing and Publishing.....	67,125.35
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Preparation and Exhibition:

Preparation and Exhibition.....	26,671.68
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Educational—Public School Work:

Public Education.....	53,850.66
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Total net disbursements for the development of all departments..... **\$499,937.40**

Loan to African Hall Construction..... 7,815.12

*Available Cash Balance—December 31, 1932..... 14,157.51

\$521,910.03

GENERAL ACCOUNT (Continued)**SUMMARY****Balance, December 31, 1932:**

Cash.....		\$210,751.52
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Loans Receivable:

Sixtieth Anniversary Endowment.....	\$82,404.12	
African Hall Construction.....	41,117.19	
Authorized Deficit of 1931.....	29,884.68	153,405.99
		<u>\$364,157.51</u>

Deduct:

Reserved for payment of Bank Loans.....		350,000.00
*Available Cash, Reserved for 1933.....		<u>\$14,157.51</u>

MORRIS K. JESUP FUND ACCOUNT***Receipts, 1932****Trustees' Restricted Funds:**

Cash Balance, January 1, 1932		\$4,660.00
Income from Morris K. Jesup Fund.....	\$281,173.41	
Sale of Publications.....	2,494.64	
Sales and Exchanges.....	842.92	
Total net receipts for the development of all departments.....		284,510.97
		<u>\$289,170.97</u>

Disbursements, 1932**Scientific and Research:**

Geology and Invertebrate Palaeontology..	\$8,147.39	
Mineralogy.....	4,166.73	
Mammalogy.....	17,897.16	
Central Asiatic Exploration and Research	12,312.50	
Ornithology.....	21,026.09	
Vertebrate Palaeontology.....	12,046.83	
President Osborn's Science Fund.....	5,017.33	
Comparative Anatomy.....	12,964.91	
Anthropology.....	19,012.62	
Ichthyology.....	10,638.84	
Herpetology and Experimental Biology....	16,158.56	
Lower Invertebrates.....	5,409.78	
Entomology.....	10,257.29	
Library.....	9,517.25	\$164,573.28

Printing, Books and Publications:

Printing and Publishing.....	23,201.34
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Preparation and Exhibition:

Preparation and Exhibition.....	\$74,132.56	
Vertebrate Palaeontology.....	20,600.24	94,732.80

Total net disbursements for the development of all departments..... **\$282,507.42**

Cash Balance, December 31, 1932..... **16,663.55**

\$289,170.97

*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.

†Available for obligations of 1932.

SPECIAL FUNDS ACCOUNT**Receipts and Disbursements, 1932**

	Balance Jan. 1, 1932	Receipts	Disbursements	Balance Dec. 31, 1932
Astronomy				
Astronomic Fund:.....	\$214.54		\$62.81	\$151.73
Totals.....	\$214.54		\$62.81	\$151.73
Geology and Invertebrate Palaeontology				
Geological Models Fund:				
Charles P. Bonnett.....		\$1.00	1.00	
Varve Clay Investigation Fund:				
Childs Frick.....		500.00	461.34	38.66
Totals.....		\$501.00	\$462.34	\$38.66
Mineralogy				
Matilda W. Bruce Fund:.....	8.88			
Interest.....		599.50	605.40	2.98
The Boyce Thompson Mineral Collection Fund:.....	1,125.00			
Interest.....		1,950.00		3,075.00
The Boyce Thompson Mineral Collection Installation Fund:				
Interest.....		621.58	621.58	
Wallace Memorial Fund:				
Interest.....		699.50	450.75	248.75
Totals.....	\$1,133.88	\$3,870.58	\$1,677.73	\$3,326.73
Mammalogy				
Archbold Mammal Fund:.....	628.31			
Richard Archbold.....		12,507.87	8,147.44	4,988.74
George S. Bowdoin Whale Model Fund:.....	750.00			750.00
Hatt Mammal Fund:				
Robert T. Hatt.....		315.00	315.00	
Legendre Indo-China Expedition Fund:				
Sidney J. Legendre.....		290.36	290.36	
North American Mammal Fund:	300.00			300.00
Ottley-Anthony Sudan Expedition Fund:				
Gilbert C. Ottley.....		1,000.00	172.56	827.44
Ottley-Anthony Venezuela Ex- pedition Fund:.....	216.38			
Gilbert C. Ottley.....		1,800.00	2,016.38	
Special Canine Fund:.....	239.62		51.50	188.12
Totals.....	\$2,134.31	\$15,913.23	\$10,993.24	\$7,064.30
Carried Forward.....	\$3,482.73	\$20,284.81	\$13,196.12	\$10,571.42

SPECIAL FUNDS ACCOUNT (Continued)

	Balance Jan. 1, 1932	Receipts	Disbursements	Balance Dec. 31, 1932
Brought Forward	\$3,482.73	\$20,284.81	\$13,196.12	\$10,571.42
Asiatic Exploration and Research				
Central Asiatic				
Expeditions Fund:.....	36,261.62			
H. Arthur Stump.....		2.00		
H. E. Sargent.....		50.00		
Sale of Publications.....		503.08	21,401.81	15,414.89
	<u>\$36,261.62</u>	<u>\$555.08</u>	<u>\$21,401.81</u>	<u>\$15,414.89</u>
Totals.....	<u>\$36,261.62</u>	<u>\$555.08</u>	<u>\$21,401.81</u>	<u>\$15,414.89</u>
Ornithology				
Amazon Field Fund:				
Mrs. Walter Naumburg.....		409.50	409.50	
Bird Photo Fund:.....	13.37		13.37	
Birds and Mammals from Brazil Fund:				
Mrs. Frederick Godfrey Bird		25.00	25.00	
English Bird Group Fund:				
Mrs. Carll Tucker.....		3,000.00	3,000.00	
Ornithological Fund:.....	163.90			
Leonard C. Sanford.....		136.29		
Starling W. Childs.....		65.00	359.32	5.87
	<u>\$163.90</u>	<u>\$201.29</u>	<u>\$359.32</u>	<u>\$5.87</u>
Margaret Olivia Sage Fund:				
Interest.....		427.88	427.88	
Special Bird Fund:				
Anonymous.....		230,000.00	229,194.59	805.41
Whitney South Sea Expedition				
Fund:.....	12,254.57			
Estate of H. P. Whitney....		10,000.00		
Transferred from Museum				
Building Fund Account...		.04		
	<u>\$12,254.57</u>	<u>\$10,000.04</u>	<u>\$11,654.95</u>	<u>\$10,599.66</u>
Totals.....	<u>\$12,431.84</u>	<u>\$244,063.71</u>	<u>\$245,084.61</u>	<u>\$11,410.94</u>
Vertebrate Palaeontology				
American Pliocene Fund—				
Vertebrate Palaeontology:...	3,710.56			
Childs Frick.....		19,500.00	21,565.93	1,644.63
Dinosaurs Fund:				
Stewart Edgar Colie.....		1.00		
Colin C. Stewart.....		50.00		
		<u>\$51.00</u>	<u>51.00</u>	
J. P. Morgan Fund—				
Vertebrate Palaeontology:				
Transferred from Reserve..		24,268.95	24,268.95	
Osborn Palaeontologic Research				
Fund:				
Interest.....		260.49	63.25	197.24
Scarritt Patagonian Expedition				
Fund:.....	3,936.86			
H. S. Scarritt.....		1,000.00	3,146.62	1,790.24
Carried Forward.....	<u>\$59,823.61</u>	<u>\$309,984.04</u>	<u>\$328,778.29</u>	<u>\$41,029.36</u>

SPECIAL FUNDS ACCOUNT (Continued)

	Balance Jan. 1, 1932	Receipts	Disbursements	Balance Dec. 31, 1932
Brought Forward.....	\$59,823.61	\$309,984.04	\$328,778.29	\$41,029.36
Vertebrate Palaeontology Field Fund:.....	364.21			
Interest.....		1,157.75	1,502.04	19.92
Vertebrate Palaeontology Special Fund:.....	57.59			
Interest.....		49.50	83.25	23.84
Totals.....	\$8,069.22	\$46,287.69	\$50,681.04	\$3,675.87
Comparative Anatomy				
James Arthur Research Fund:.....	338.85			
Interest.....		2,173.56	2,097.59	414.82
Introduction to Anatomy Fund:.....				
Childs Frick.....		1,000.00		
Marguerite E. Schwarzman.....		10.00		
Homer W. Smith.....		25.00		
		\$1,035.00	\$878.48	\$156.52
Microscope for Comparative Anatomy Fund:.....				
Louis J. Boury.....		100.00		
John Noyes Mead Howells..		100.00		
Dr. George A. Wyeth.....		25.00	225.00	
		\$225.00	\$225.00	
Races of Man Hall Fund:.....				
Mrs. S. G. Rich.....		10.00	10.00	
Totals.....	\$338.85	\$3,443.56	\$3,211.07	\$571.34
Anthropology				
Anthropology Special Fund:..	57.59			
Interest.....		49.50	83.25	23.84
Bolivian Anthropological Expedition Fund:.....				
Frank Phillips.....		5,000.00	5,000.00	
Carnegie Conference Fund:....	644.10		250.00	394.10
Middle American Research Fund:.....				
Clarence L. Hay.....		1,134.64		
Mrs. Charles S. Payson....		250.00		
John Hay Whitney.....		250.00		
Mrs. Payne Whitney.....		500.00	2,134.64	
		\$2,134.64	\$2,134.64	
Physical Anthropology Fund:..	1.00			
Amelia Elizabeth White....		150.00		
Interest.....		496.00		
Refund.....		239.16		
	\$1.00	\$885.16	\$120.51	\$765.65
Physical Anthropology of Quebec Fund:.....	300.00		160.00	140.00
Frederick G. Voss Anthropology and Archæology Fund:....	1,603.64			
Interest.....		13,851.00	12,427.27	3,027.37
West Indian Fund:.....	11.47		11.47	
Totals.....	\$2,617.80	\$21,920.30	\$20,187.14	\$4,350.96
Carried Forward.....	\$63,202.06	\$336,555.15	\$353,761.79	\$45,995.42

SPECIAL FUNDS ACCOUNT (Continued)

	Balance Jan. 1, 1932	Receipts	Disbursements	Balance Dec. 31, 1932
Brought Forward.....	\$63,202.06	\$336,555.15	\$353,761.79	\$45,995.42
Ichthyology				
Bashford Dean Ichthyological Library Fund:.....	21.69			
Interest.....		232.45	14.50	239.64
Purchase of Fish Specimens Fund:				
Miss Harriet M. Dean....		500.00	177.75	322.25
Totals.....	\$21.69	\$732.45	\$192.25	\$561.89
Herpetology and Experimental Biology				
Armstrong Santo Domingo Expe- dition Fund:				
Lorenzo D. Armstrong.....		320.00	320.00	
Biological Research Fund:				
Miss Elizabeth A. Copeland		2.00		
Albert H. Crosby.....		20.00		
Dr. Frank S. Mathews.....		100.00		
Daniel Smiley, Jr.....		5.00		
E. Alfred Wolf.....		5.00		
		\$132.00	\$132.00	
Special Biological Research Fund No. 1:.....	532.74			
Mrs. Henry White.....		1,000.00		
Childs Frick.....		333.34		
	\$532.74	\$1,333.34	\$1,709.09	\$156.99
Special Biological Research Fund No. 2:.....	5,085.75			
George T. Bowdoin.....		1,000.00		
Cleveland Earl Dodge.....		1,000.00		
Clarence L. Hay.....		1,000.00		
Junius S. Morgan.....		1,000.00		
A. Hamilton Rice.....		1,000.00		
Felix M. Warburg.....		500.00	6,886.93	3,698.82
	\$5,085.75	\$5,500.00	\$6,886.93	\$3,698.82
Totals.....	\$5,618.49	\$7,285.34	\$9,048.02	\$3,855.81
Entomology				
Butterfly Group Fund:				
Mrs. C. M. Pratt.....		25.00		
Miss Harriet A. Wickwire..		10.00		
		\$35.00	\$35.00	
Entomological Fund:.....	1,428.00			
Raymond W. Storm.....		357.50	385.00	1,400.50
Totals.....	\$1,428.00	\$392.50	\$420.00	\$1,400.50
Library				
Anson W. Hard Library Fund:				
Interest.....		254.50	242.50	12.00
Carried Forward.....	\$70,270.24	\$345,219.94	\$363,664.56	\$51,825.62

SPECIAL FUNDS ACCOUNT (Continued)

	Balance Jan. 1, 1932	Receipts	Disbursements	Balance Dec. 31, 1932
Brought Forward.....	\$70,270.24	\$345,219.94	\$363,664.56	\$51,825.62
J. P. Morgan Fund—Library: Transferred from J. P. Morgan Fund Reserve.....		75.00	75.00	
Purchase of Books Fund: Charles P. Bonnett.....		3.00		
H. Herbert Johnson.....		10.00		
		\$13.00	\$13.00	
Ralph Winfred Tower Memorial Fund: Interest.....		1,095.51	1,095.51	
Totals.....		\$1,438.01	\$1,426.01	\$12.00
Printing and Publishing				
Anthropological Handbook Fund.....	2,814.67			
Sales.....		671.43	1,575.61	1,910.49
Brewster-Sanford Publication Fund: Frederick F. Brewster.....		1,500.00	276.51	1,223.49
Comparative Anatomy Publication Fund: Mrs. Bashford Dean.....		100.00		
Miss Harriet M. Dean.....		500.00		
Aloysius L. Ziska.....		10.00		
		\$610.00	\$258.23	\$351.77
Mammal Publications Fund: Mrs. Clarence Price.....		1,000.00	100.00	900.00
J. P. Morgan Fund—Printing and Publishing: Transferred from Reserve....		600.00	600.00	
Museum Calendar Fund: Charles P. Bonnett.....		1.00	1.00	
Totals.....	\$2,814.67	\$4,382.43	\$2,811.35	\$4,385.75
Public Education				
Carnegie Corporation of New York Fund.....	2,051.99			
Carnegie Corporation of New York.....		10,000.00	8,506.54	3,545.45
Educational Lecture Fund: Tuition Fees.....		186.67	186.67	
Nature Trails Fund: Ethel C. Gardner.....		5.00		
James L. Goodwin.....		50.00		
Haverstraw Masonic Camp.....		15.00		
Morton J. Newburger.....		25.00		
Mrs. Albert Strauss.....		100.00		
Nellie M. Wilton.....		5.00		
		\$200.00	\$200.00	
Pupil Parent Fund: Childs Frick.....		560.00	395.54	164.46
Carried Forward.....	\$75,136.90	\$361,732.55	\$376,948.17	\$59,921.28

SPECIAL FUNDS ACCOUNT (Continued)

	Balance Jan. 1, 1932	Receipts	Disbursements	Balance Dec. 31, 1932
Brought Forward.....	\$75,136.90	\$361,732.55	\$376,948.17	\$50,921.28
School Fund:				
Guiding Fees.....		28.50	28.50	
Special Education Fund:.....	1,366.32			
Felix M. Warburg.....		10,000.00	9,289.70	2,076.62
Jonathan Thorne Memorial Fund:.....	708.57			
Interest.....		1,172.00	820.75	1,059.82
Voice Amplifier Fund:				
J. Clarence Davies.....		25.00		
Mrs. W. K. Vanderbilt.....		750.00		
		\$775.00		\$775.00
Totals.....	\$4,126.88	\$22,922.17	\$19,427.70	\$7,621.35
Preparation and Exhibition				
African Hall Group Fund:.....	20,323.53			
Transferred from African Hall Preparation Fund—Gorilla Group.....		5,000.00		
Transferred to Impalla Group Fund.....			11,383.00	
For Preparation.....			12,005.07	
	\$20,323.53	\$5,000.00	\$23,388.07	\$1,935.46
African Hall Preparation Fund—				
Gorilla Group:.....	27,500.00			
Edna A. Stone.....		1,000.00		
Frans T. Stone.....		3,000.00		
Natalia S. Stone.....		1,500.00		
Theodora M. Stone.....		2,000.00		
Transferred to African Hall Group Fund.....			5,000.00	
For Preparation.....			7,536.81	
	\$27,500.00	\$7,500.00	\$12,536.81	\$22,463.19
African Hall Preparation Special Fund:.....	3,750.00			
Interest.....		1,000.00		4,750.00
Carlisle-Clark African Expedition Preparation Fund:.....	15,971.17		1,503.55	14,467.62
Impalla Group Fund:				
Daniel E. Pomeroy.....		15,000.00		
Transferred from African Hall Group Fund.....		11,383.00		
		\$26,383.00	\$2,984.90	\$23,418.10
Carried Forward.....	\$144,756.49	\$413,591.05	\$427,480.45	\$130,867.09

SPECIAL FUNDS ACCOUNT (Continued)

	Balance Jan. 1, 1932	Receipts	Disbursements	Balance Dec. 31, 1932
Brought Forward.....	\$144,756.49	\$413,591.05	\$427,480.45	\$130,867.09
O'Donnell-Clark African Expedition Fund:.....	25,154.09		5,455.38	19,698.71
Totals.....	<u>\$92,698.79</u>	<u>\$39,883.00</u>	<u>\$45,848.71</u>	<u>\$86,733.08</u>
Balance January 1, 1932.....	\$169,910.58			
Total net receipts for the development of specific departments.....		\$413,591.05		
Total net disbursements for the development of specific departments.....			\$432,935.83	
Balance, December 31, 1932.....				\$150,565.80
J. P. Morgan Fund Reserve....	3,880.69			
Interest.....		24,534.88	24,943.95	3,471.62
Group Preparation Fund Reserve—				
General Preparation for 1932:				
Mrs. Herbert L. Satterlee.		50.00	50.00	
Totals.....	<u>\$173,791.27</u>	<u>\$438,175.93</u>	<u>\$457,929.78</u>	<u>\$154,037.42</u>

THE AMERICAN MUSEUM OF NATURAL HISTORY
CORPORATE STOCK ACCOUNT

1932

Receipts:

Department of Parks, City of New York:

C. D. P. 123-K.....	\$4,995.38
C. D. P. 123-M.....	14,151.00
N. D. P. 3-8.....	<u>7,280.62</u>

\$26,427.00

Interest on Credit Balances..... 2.62

\$26,429.62

Disbursements:

Payroll of Mechanics, etc..... \$26,427.00

Interest on Credit Balances (to General Account)..... 2.62

\$26,429.62

INCIDENTAL ACCOUNT

1932

Receipts:

Cash Balance, January 1, 1932.....		\$6,065.61
Received from Individuals and Societies.....		27,678.18
Group Life Insurance:		
Employees' Premium Payments.....	\$9,306.63	
Dividends.....	478.50	
Loans.....	3,888.64	13,673.77
Mayor's Official Committee:		
Employees' Contributions to Unemployment Fund.....		8,137.75
Interest on Credit Balances.....		60.05
		<u>\$55,615.36</u>

Disbursements:

Disbursements for Individuals and Societies.....		\$27,931.96
Group Life Insurance:		
Premiums.....	\$9,796.06	
Loan Instalments.....	3,877.71	13,673.77
Mayor's Official Committee:		
Payments to Unemployment Fund.....		8,153.36
Interest on Credit Balances (to General Account).....		60.05
Cash Balance, December 31, 1932.....		5,796.26
		<u>\$55,615.23</u>

All the foregoing accounts have been

Examined and	{	OGDEN L. MILLS	}	Auditing Committee.
Approved		FREDERICK TRUBEE DAVISON		
		H. RIVINGTON PYNE		

E. and O. E.

NEW YORK, December 31, 1932.

JAMES H. PERKINS, Treasurer.

THE AUDIT COMPANY OF NEW YORK
1 Cedar Street
New York

February 7, 1933.

OGDEN L. MILLS, Esq.,
Chairman Auditing Committee,
American Museum of Natural History,
77th Street and Central Park West,
New York, N. Y.

DEAR SIR:—

We have examined the accounts and records of the various Funds of the American Museum of Natural History for the year ended December 31, 1932.

* * * * *

We hereby certify that, in our opinion, the Statements of Cash Receipts and Disbursements of the several Funds, annexed hereto, are in accord with the books and correctly set forth the results from operations of the Funds of the American Museum of Natural History for the year ended December 31, 1932.

Respectfully submitted,

THE AUDIT COMPANY OF NEW YORK,

(Signed) W. C. WAGGONER. *Vice-President*

TREASURER'S REPORT
OF THE
PENSION FUND
OF
THE AMERICAN MUSEUM OF NATURAL HISTORY
FOR THE YEAR 1932



INVESTED FUNDS

Summary

	Par Value	Book Value
Investment Fund.....	\$760,141.63	\$732,221.36
Endowment Fund.....	1,258.37	1,140.39
	<u>\$761,400.00</u>	<u>\$733,361.75</u>

PENSION FUND ACCOUNT

Receipts, 1932

Cash Balance, January 1, 1932.....		\$16,935.66
Contributions of Subscribing Employees:		
Deductions of 3% from Payrolls of		
General Account.....	\$15,013.95	
Morris K. Jesup Fund Account.....	7,048.60	
City Maintenance Account.....	7,587.53	
Special Funds Account.....	1,319.48	
Corporate Stock Account.....	500.21	
Museum Restaurant Account.....	268.39	
Museum Cafeteria Account.....	101.65	
	<u>\$31,839.81</u>	
Personal Payments of Subscribing Employees....	884.59	\$32,724.40
Contributions of Board of Trustees:		
To equal Contributions of Subscribing Employees.....		32,724.40
Income from Investment Fund.....	\$31,638.06	
Income from Endowment Fund.....	50.34	31,688.40
Interest on Credit Balances.....		<u>82.99</u>
		97,220.19
Sales, Redemptions of Securities and Amortization Payments:		
Investment Fund.....		13,243.60
Bursar's Account.....		<u>1,000.00</u>
		<u>\$128,399.45</u>

Examined and	{ A. PERRY OSBORN GEORGE D. PRATT }	Auditing Committee
Approved		

PENSION FUND ACCOUNT

Disbursements, 1932

Return of Contributions.....	\$5,018.46	
Interest on Contributions Returned.....	335.97	\$5,354.43
Service Pensions "A".....	\$6,689.78	
Service Pensions "B".....	1,692.00	
Service Pensions "C".....	2,382.48	
Pensions in Event of Illness, Dismissals, etc.....	2,610.97	13,375.23
Death Gratuities Paid under Section 13, Subd. 3 b1.	\$752.49	
Death Gratuities Paid under Section 13, Subd. 1b...	1,254.38	2,006.87
Expenses.....	72.82	\$20,809.35
Purchase of Securities:		
Investment Fund.....		94,670.00
Loan Account.....		1,000.00
Cash Balance, December 31, 1932:		
Deposited with the United States Trust Company of N. Y....	\$10,920.10	
Deposited with the National City Bank of New York (Bursar's Account)	1,000.00	11,920.10
		<u>\$128,399.45</u>

E. & O. E.

NEW YORK, December 31, 1932

J. H. PERKINS, *Treasurer.*

PENSION FUND—SPECIAL FUNDS ACCOUNT

Receipts, 1932

Welfare Fund:

Cash.....	\$994.29
Refunds from Secretary.....	127.00
Interest on Credit Balances.....	6.62
	<u>\$1,127.91</u>

Examined and { A. PERRY OSBORN }
 Approved { GEORGE D. PRATT } *Auditing Committee*

PENSION FUND—SPECIAL FUNDS ACCOUNT

Disbursements, 1932

Welfare Fund:

Cash Balance, December 31, 1932:

Deposited with the United States Trust Company of New York.....	\$1,127.91
	<u>\$1,127.91</u>

E. & O. E.

NEW YORK. December 31, 1932.

J. H. PERKINS, *Treasurer.*

THE AUDIT COMPANY OF NEW YORK

1 Cedar Street

New York

February 7, 1933.

A. PERRY OSBORN, Esq.,

Chairman Auditing Committee,

Pension Board of The American Museum of Natural History,

77th Street and Central Park West,

New York, N. Y.

DEAR SIR:—

We have examined the Cash Receipts and Disbursements records of the Pension Fund of the American Museum of Natural History for the year ended December 31, 1932.

* * * * *

We hereby certify that, in our opinion, the annexed Statements of Cash Receipts and Disbursements are in accord with the books and correctly set forth the results from operations of the Funds of the Pension Fund of the American Museum of Natural History for the Year ended December 31, 1932.

Respectfully submitted,

THE AUDIT COMPANY OF NEW YORK,

(Signed) **R. G. RANKIN, President.**

V. MEMBERSHIP

CLARENCE L. HAY, Secretary

WAYNE M. FAUNCE, Assistant Secretary

It is with real satisfaction that we report the addition of 999 new members during 1932. The action of this large number of new friends of the Museum in coming forward with their support in these times of great economic stress speaks volumes for the high regard which the public has for the great educational work of this institution. As one would expect, the loss due to resignations during the year was extraordinarily high, amounting to 1,629 on this account and due to deaths and transfers. Accordingly, we are obliged to record a net loss of 630 members. However, this reduction represents a comparatively small percentage of our total membership, which on December 31 was 11,377.

It is encouraging to note that while the number of sustaining and annual members fell off considerably, there was a slight gain in the associate membership roll. A good many members of the higher classes, who have been under the necessity of reducing their donations, have transferred to the associate membership class, and their support and association with the Museum have been retained. As was the case before 1929, we confidently expect that when better times return, a goodly percentage of these associate members will transfer back to the higher classes, increasing their annual contributions to the Museum's work correspondingly.

In the spring, five illustrated lectures were given for members and four Saturday morning lectures for the children of members. Likewise in the autumn course, there were four lectures for members and four for the children of members. These lectures have continued to be very popular with our members and their friends. Indeed, in the matter of attendance and in other ways, an increased interest in the members' lectures has been evident during the past year.

The Fourth Annual Members' Visiting Day, held April 27, gave our members and their friends intimate glimpses "behind the scenes" of the extensive work which their contributions help to support. A special feature of the day was the opening and private view for members of a large and diversified exhibit of the work of the Museum's group of artists and sculptors. Our members were most enthusiastic in their praise of the splendid work displayed.

As a measure of economy, in publishing this Annual Report, the list of members of the Museum has been omitted. For the same reason, the list of accessions during the year has not been printed. Each donation has been acknowledged individually by the usual certificate from the Secretary, and detailed records are kept.

On December 31, 1932, our membership, by classes, was made up as follows:

Endowment Members.....	10	Fellows.....	91
Benefactors.....	20	Honorary Life Members.....	68
Associate Founders.....	21	Life Members.....	1,126
Associate Benefactors.....	44	Corresponding Members.....	22
Patrons.....	214	Sustaining Members.....	258
Honorary Fellows.....	20	Annual Members.....	4,375
Associate Members.....		5,108	

Total membership December 31, 1932..... 11,377

CHANGES IN THE BOARD OF TRUSTEES

At the Annual Meeting of the Trustees, held January 9, 1933, the resignation of Mr. Frederick F. Brewster was accepted with profound regret. Mr. Brewster was a Trustee of the Museum for more than eighteen years and was particularly interested in the Department of Ornithology.

The following Trustees, whose terms expired, were re-elected to the Class of 1937: Messrs. Frederick Trubee Davison, Lincoln Ellsworth, Madison Grant, Clarence L. Hay, Ogden L. Mills, William K. Vanderbilt.

In accordance with the Constitution of the American Museum, the Mayor of New York is an ex-officio member of the Board. Upon the resignation of former Mayor James J. Walker, Acting Mayor Joseph V. McKee served in this capacity from September 2, 1932, to January 1, 1933. On the latter date, the Honorable John P. O'Brien, the newly elected Mayor, became an ex-officio member of our Board of Trustees.

In order that Professor Henry Fairfield Osborn might have time to devote himself to the completion of his scientific researches, he retired from the Presidency of the Museum, after a service in that office of twenty-five years, and Mr. Frederick Trubee Davison was elected President of the Museum to succeed him.

The Trustees expressed their appreciation of President Osborn's devoted service by unanimously adopting the following resolution:

WHEREAS, President Henry Fairfield Osborn has expressed the desire to retire from the active duties of the Presidency of the American Museum of Natural History and that his name should not be placed in nomination for President for the year 1933,

BE IT RESOLVED: that the Board of Trustees of the American Museum of Natural History accept with great regret the decision of President Osborn in not re-submitting his name for the office of President.

In adopting this resolution the Board wishes to record its deep appreciation of the long and glorious administration of President Osborn. First elected President in 1908, he has built up an institution that is acknowledged to be second to none of its kind either from the point of view of its standing in the world of science or the scope of its service to the community. In addition he has found time to use his great scientific attainments in the advancement of knowledge in his special field of study and thereby to increase immeasurably the prestige of the institution of whose policies he has been such an able pilot. The Board wishes to express its pleasure at the knowledge that he will continue to be associated with it as Honorary President and hopes that through being released from administrative duties he will be free to give his full attention to his scientific work, which is of such great value to the world.

Professor Osborn was unanimously elected Honorary President of the Museum for life.

The following resolution was adopted at a special meeting of the Administrative and Scientific Staffs, held on January 12, 1933:

WHEREAS, Professor Henry Fairfield Osborn has deemed it wise to retire from the Presidency of the American Museum of Natural History after twenty-five years of service, and

WHEREAS, During his long and brilliant administration, the American Museum has had an unprecedented growth in buildings and in all of its departments . . . its increasing influence upon the scientific and educational life of America and its manifold international relations have been largely due to his broad views and wise policies . . . his courageous leadership and his dauntless determination in the face of almost insurmountable difficulties have served as an inspiring example to us who have been privileged to work under his direction, and

WHEREAS, The Administrative and Scientific Staffs cannot fail to regret his retirement from the active administration of the Museum, we nevertheless appreciate that, because of his release from administrative duties, science will gain much from his decision and we rejoice in his opportunity to complete the great researches upon which he has been engaged, therefore be it

RESOLVED, That the Administrative and Scientific Staffs of the Museum desire to express to him their deep appreciation of his unceasing labors on behalf of the Museum and all its employees, and extend to him affectionate wishes for many years of happiness in his scientific career with continued health and undiminished vigor

The high esteem in which Professor Osborn is held by the City authorities is expressed in the following telegram from His Honor Mayor John P. O'Brien, which was read at the Annual Meeting of the Trustees on January 9, 1933:

NA47 125 RK NEWYORK NY 512P JAN 9 1933

Dr. A. Hamilton Rice
901 Fifth Ave

I regret exceedingly that my engagements will not permit me to be present at your meeting tonight which will mark the passing from the Presidency of the American Museum of Natural History of that noted American Professor Henry Fairfield Osborn (stop) His splendid service during a quarter of a century is a record so brilliant as

to need no embellishment from me (stop) I would like however to add my felicitations to all those which will be so justly offered Professor Osborn tonight and I would like also to congratulate the Museum on the choice of its new President whose splendid public service augurs well for brilliant accomplishments during his Presidency of this Institution which means so much to the cultural life of our City.

JOHN P. O'BRIEN, Mayor
525P

CHANGES AND PROMOTIONS IN THE SCIENTIFIC STAFF

On June 29, 1932, death removed from our Staff Dr. George F. Kunz, Research Associate in Gems, who had been associated with the Museum in a voluntary capacity for more than half a century. Doctor Kunz had devoted a lifetime to the development of the collection of minerals and gems in the American Museum and made great contributions to the collections in the Morgan Memorial Hall.

Willis J. Gertsch, M.A., was appointed Assistant Curator in Entomology. Albert R. Brand was appointed Associate in Ornithology. Helen Teale Bradley, M.A., Staff Assistant in the Department of Amphibians and Reptiles and Experimental Biology, resigned on August 31, 1932.

Early in 1933, the following appointments were made: Ernst Mayr, Ph.D., Associate Curator of Birds; Edwin H. Colbert, A.M., Assistant Curator in Vertebrate Palaeontology; William Lord Smith, M.D., Staff Assistant in Education; William W. Howells, M.A., Associate in Physical Anthropology; I. Wyman Drummond, Ph.D., Research Associate in Ancient Jade and Amber; Charles E. Hadley, Ph.D., and S. W. Handford, A.B., Research Associates in Experimental Biology; William Beebe, Sc.D., Research Associate in Oceanography.

VI. APPENDIX
ADMINISTRATION OF THE YEAR 1933

BOARD OF TRUSTEES

Honorary President

HENRY FAIRFIELD OSBORN

President*

F. TRUBEE DAVISON

First Vice-President

J. P. MORGAN

Second Vice-President

CLEVELAND E. DODGE

Treasurer

JAMES H. PERKINS

Secretary

CLARENCE L. HAY

ELECTIVE TRUSTEES

Class of 1933

GEORGE F. BAKER

A. PERRY OSBORN

ARCHER M. HUNTINGTON

KERMIT ROOSEVELT

JUNIUS S. MORGAN

FELIX M. WARBURG

Class of 1934

CHAUNCEY J. HAMLIN

HENRY FAIRFIELD OSBORN

SUYDAM CUTTING

GEORGE D. PRATT

FREDERICK H. OSBORN

A. HAMILTON RICE

Class of 1935

GEORGE T. BOWDOIN

DANIEL E. POMEROY

CORNELIUS V. WHITNEY

HENRY W. SAGE

J. P. MORGAN

H. RIVINGTON PYNE

Class of 1936

DOUGLAS BURDEN

CHILDS FRICK

CLEVELAND EARL DODGE

JAMES H. PERKINS

LEONARD C. SANFORD

Class of 1937

F. TRUBEE DAVISON

CLARENCE L. HAY

LINCOLN ELLSWORTH

OGDEN L. MILLS

MADISON GRANT

WILLIAM K. VANDERBILT

EX-OFFICIO TRUSTEES

JOHN P. O'BRIEN

(MAYOR OF THE CITY OF NEW YORK)

CHARLES W. BERRY

(COMPTROLLER OF THE CITY OF NEW YORK)

JOHN E. SHEEHY

(PRESIDENT OF THE PARK BOARD)

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

STANDING COMMITTEES OF THE TRUSTEES**Executive Committee**

CLEVELAND EARL DODGE,

Chairman

F. TRUBEE DAVISON

JAMES H. PERKINS

CLARENCE L. HAY

GEORGE T. BOWDOIN

CHILDS FRICK

JUNIUS S. MORGAN

DANIEL E. POMEROY

GEORGE D. PRATT

KERMIT ROOSEVELT

FELIX M. WARBURG

} *ex-officio***Finance Committee**JAMES H. PERKINS, *Chairman*

GEORGE F. BAKER

GEORGE T. BOWDOIN

A. PERRY OSBORN

FELIX M. WARBURG

FREDERICK H. SMYTH,

*Assistant Secretary***Advisers to the Finance Committee**

ARTHUR M. ANDERSON

CHARLES D. LANIER

Nominating CommitteeMADISON GRANT, *Chairman*

GEORGE F. BAKER

DOUGLAS BURDEN

Auditing CommitteeOGDEN L. MILLS, *Chairman*

CORNELIUS V. WHITNEY

H. RIVINGTON PYNE

Counsel to the Board of Trustees

LEWIS L. DELAFIELD

SPECIAL COMMITTEES OF THE TRUSTEES**Buildings and Plans**

HENRY FAIRFIELD OSBORN,

Chairman

JOHN E. SHEEHY,

Park Department

CHAUNCEY J. HAMLIN,

Roosevelt Memorial

LEONARD C. SANFORD

CORNELIUS V. WHITNEY,

Whitney Memorial

DANIEL E. POMEROY,

African Hall

CLARENCE L. HAY,

Middle American Hall

JUNIUS S. MORGAN

Oceanic Hall

CHILDS FRICK,

Vertebrate Palaeontology

ROSWELL MILLER,

Engineering Consultant

WAYNE M. FAUNCE,

Assistant Secretary

SPECIAL COMMITTEES OF THE TRUSTEES—Continued
Sixtieth Anniversary Endowment

F. TRUBEE DAVISON, <i>General Chairman</i>	JUNIUS S. MORGAN
JAMES H. PERKINS, <i>Treasurer</i>	A. PERRY OSBORN
GEORGE T. BOWDOIN	DANIEL E. POMEROY
DOUGLAS BURDEN	HENRY W. SAGE
CLEVELAND E. DODGE	LEONARD C. SANFORD
CHILDS FRICK	FELIX M. WARBURG
CLARENCE L. HAY	GEORGE H. SHERWOOD, <i>Secretary of the Committee</i>

Pension Board*

Trustee and Employee Members	A. PERRY OSBORN
FELIX M. WARBURG, <i>Chairman</i>	HARRY F. BEERS
GEORGE D. PRATT	GEORGE N. PINDAR
GEORGE T. BOWDOIN	HAROLD E. ANTHONY

DEPARTMENTAL COMMITTEES

Library and Publications	Mineralogy and Morgan Hall
GEORGE T. BOWDOIN, <i>Chairman</i>	GEORGE F. BAKER, <i>Chairman</i>
MADISON GRANT	J. P. MORGAN
A. HAMILTON RICE	H. RIVINGTON PYNE
OGDEN L. MILLS	HERBERT P. WHITLOCK, <i>Curator</i>
IDA RICHARDSON HOOD, <i>Curator</i>	

Education	Vertebrate Paleontology
FELIX M. WARBURG, <i>Chairman</i>	CHILDS FRICK, <i>Chairman</i>
GEORGE D. PRATT	DOUGLAS BURDEN
CHAUNCEY J. HAMLIN	HENRY FAIRFIELD OSBORN, <i>Honorary Curator-in-Chief</i>
GEORGE H. SHERWOOD, <i>Curator-in-Chief</i>	Anthropology and Comparative Anatomy
Geology and Geography	CLARENCE L. HAY, <i>Chairman</i>
A. HAMILTON RICE, <i>Chairman</i>	MADISON GRANT
DOUGLAS BURDEN	FREDERICK H. OSBORN
CHESTER A. REEDS, <i>Curator</i>	FREDERICK TILNEY
	CLARK WISSLER, <i>Curator-in-Chief</i>
	WILLIAM K. GREGORY, <i>Curator</i>

Astronomy and Planetarium

A. CRESSY MORRISON, <i>Chairman</i>	O. H. CALDWELL
H. RIVINGTON PYNE	JOHN A. KINGSBURY
CHARLES J. LIEBMAN	CLYDE FISHER, <i>Curator</i>

*Established by the Trustees in 1913. See also Administrative Committee on Wage Employees.

DEPARTMENTAL COMMITTEES—Continued**Advisers to the Astronomy Committee****HENRY NORRIS RUSSELL**, Princeton**GEORGE ELLERY HALE**, Mount Wilson**HARLOW SHAPLEY**, Harvard**SAMUEL ALFRED MITCHELL**, University of Virginia**HOWARD RUSSELL BUTLER**, Princeton**Asiatic Halls and Asiatic
Collections****KERMIT ROOSEVELT**, *Chairman***ARTHUR S. VERNAY****SUYDAM CUTTING****WILLIAM J. MORDEN****H. E. ANTHONY**, *Curator***African Hall and African
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1869 Museum incorporated. Constitution adopted as drafted by Joseph H. Choate.

1870 First home secured, the Arsenal, Central Park.

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.

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1892 Museum opened to the public on Sundays.

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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.

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