# THE AMERICAN MUSEUM OF NATURAL HISTORY

SEVENTY-EIGHTH ANNUAL REPORT JULY, 1946, THROUGH JUNE, 1947



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THE CITY OF NEW YORK 1947

"For the purpose of establishing and maintaining in said city [New York] 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."

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FROM THE ACT OF INCORPORATION, APRIL 6, 1869

# SEVENTY-EIGHTH ANNUAL REPORT OF THE PRESIDENT

## To the Trustees of

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

T is my unhappy duty to report that because of steadily dwindling income from endowment, together with inflated costs, the Museum's activities in research, education, and exhibition are falling to a point where this institution may lose its long-held position of world leadership.

This year, as in previous years, our policy has been to practice economy without wholesale sacrifices of the Museum's functions in science, education, and exhibition. Unfortunately, our efforts to stem the rising tide of deficits have been futile, even as our endeavors to increase revenues through gifts and appropriations have not produced adequate response.

The crisis is such that we must make and execute decisions that may have retarding effects on our contributions to scientific advancement, educational extension, industrial research, and modern exhibits.

As a clearcut example of the Museum's distress, I cite the disturbing fact that in the past few years our scientific staff has been cut almost in half. This in itself would be an alarming revelation if it affected scientific research alone. But it goes far beyond, in that it endangers our correlated education and exhibition programs. Scientific accuracy is the only sound base upon which these public service programs and exhibits can be [Page One] founded. It means that the Museum's horizons will be "frozen" instead of continuing to expand. Science is always on the move—ever on the march. If our institution stops in its tracks it may become as prehistoric as the dinosaurs in its collections.

In the midst of seemingly prosperous times we are forced to operate on a wartime or emergency budget. In fact, we have been operating since before the war on a critical deficit financing basis, which is annually making inroads on our shrinking capital funds.

The time has come when we, in order to safeguard the Museum's future potentials, must cut to the bone. In taking stock of our ability to meet community needs during the coming year, we have been forced to consider drastic reductions of long-established local services. We may not be able to continue many of these vital services unless substantial additional financial aid for general, and special purposes is provided immediately.

These are the prospects we face:

Lack of adequate funds will prevent us from effectively maintaining our traveling educational exhibits which have been employed extensively by schools in the city for both normal and physically handicapped children.

We shall be fortunate during the coming year if we are able to fill one-third of the requests from teachers for educational guided tours. This means that approximately 150,000 school children will be unable to benefit from even this basic educational activity. During the past school year we were forced to decline thousands of requests from school teachers in New York City for basic guided tours. Thus, more than 75,000 school children have already been deprived of this effective educational experience.

Our Department of Education's Audio-Visual Aids [Page Two] Center must further curtail its participation with school officials in the development and evaluation of the most modern instructional aids. An additional cutback will practically eliminate this valuable source of aid in maintaining a sound up-to-date school system.

Our entire program of scientific and educational cooperation with New York's leading universities is in danger. Both undergraduate and graduate students of the city's colleges may have to be refused help, instruction, and, perhaps, even access to collections and laboratories which are the sole facilities in the city for their research.

The Museum's flow of assistance to the medical institutions of New York, both educational and practical, faces curtailment. This would eliminate otherwise unobtainable services in lectures for nurses and other students on comparative anatomy and animal behavior.

Even local industry will feel the effect of drastic curtailment of Museum community services. The Museum serves daily as a source of scientific information for a wide range of local industries. Museum exhibit materials, scientific collections, and publications are employed daily by local industry for the development of educational display or technical research.

Another important part of our program which would be vitiated is the modernization of some two dozen of our old halls. This program is not only interesting but exciting. It is proposed in order that the Museum may present in streamlined story-sequence the national, regional, and global picture of the development of the world and of man.

The institution of such a dynamic program has long been a fond goal of the Director, Dr. Parr, who comments in detail on this plan in his section of the report. As before noted, the suspension of these key services to the community would topple New York's Museum of Natural History from its position of leadership. I say without equivocation that the world's leading city cannot afford to have this Museum relegated to a minor position among its sister institutions in the world.

Here, too, it is possible to point out a definite, even economic advantage to the city as a part of our contribution. The Museum is one of New York's leading attractions for visitors and tourists. Hundreds of thousands of out-of-town visitors come to the Museum every year. If we do not maintain our present standards of world exhibits, and do not continue our vital program of contemporary exhibits in competition with other natural history institutions, our importance as a visitor attraction will diminish.

I have tried to draw, in black and white without emotional overtones, a true picture of the Museum's plight. The situation is, indeed, a gloomy one. Still we are not adopting a defeatist attitude. On the contrary, we are marshalling every resource and working with a will to maintain the institution as an effective force in the community. We strive to meet the bitter challenge of the present and the bleak prospect of the future by enlisting the continued, understanding cooperation of our city officials and the many loyal, civic-spirited, and science-minded friends who have stood by us in the past.

In my annual report of last year I said: "Our financial situation is very disturbing." Unhappily that was an understatement. We closed our books on June 30 with the largest deficit in the Museum's history, and this despite the fact that our women's committee—for ten years under the devoted and able leadership of Mrs. Winthrop W. Aldrich—and the men's committee, [Page Four] together with other friends, contributed more to our annual maintenance fund than ever before. But, unfortunately, the very excellent best of these valiant workers was not and will not be enough.

We hope to increase our contributions from private sources during the coming year through an intensive annual maintenance fund effort. But, even so, our own efforts will only effect a slight reduction in our anticipated annual operating deficit. I underscore that even with such additional help, there must be drastic economies. The trustees are well aware of their responsibilities on this score and I am sure that the city fathers are similarly concerned.

In writing a report of this nature one must consider the Museum's role in this great city. From the very day it was founded in 1869 the policy that has directed and motivated the institution and its leaders can be reduced to a two-word summary: "Community Service." This policy has never been subordinated in Museum planning and development. On through the years our obligation has expanded—expanded in direct proportion to the growth of New York. As the city blossomed in size and complexity, so, too, the Museum, spurred on by civic progress, enlarged its facilities and staff to provide a steadily broadening program of community service.

Since its inception, the Museum has served the nation and the world, but first, last, and always, its policies have been based on the iron-clad purpose of serving humanity by meeting the needs of its immediate community. As a lighthouse of science, the Museum's beam reaches the far corners of the earth, but its foundation rests solidly on our home soil. And it is as a local beacon of learning that it has won its greatest fame.

The Museum can look with pride on its role in [Page Five]

serving New York's children—a record that has long been recognized and lauded in many quarters. This, perhaps, is our most important community role—to instill in the children of our city an awareness of nature and the world in which we live, a richness of understanding that can be obtained through no other source.

I know that some people consider the advantages and benefits deriving from maintaining a soundly dynamic natural history museum as abstract intangibles—intangibles that defy quick evaluation.

To be sure, the Museum does deal in intangibles. Beyond its exhibits and extensive collections which are, indeed, tangible, it deals in terms of the mind, mutual understanding, and character. Millions of children come here in classes to learn; other millions of New York school children come here on their own initiative, driven by a compelling desire to see and know the world about them. Tens of thousands of school teachers come to the Museum again and again, seeking insights into natural science aspects that can be found nowhere else in the city.

But for lack of space, I could dwell at length on the role the Museum performs as a true community center; its position as an integral civic force has made it one of New York's leading meeting places for educators, children's groups, and municipal, scientific, and even industrial organizations.

In conclusion, may I say that many of these tangible contributions have, to a great extent, been the result of the understanding cooperation our institution and its board have received from our city officials. Just how long we may be able to give the public a full measure of inspiring knowledge and avoid a tragic curtailment in our contributions to education and science is a question that [Page Six] will be answered by stern necessity in the next few months. There is no disposition on our part to surrender easily to the pressures that force us to retreat, but even as an army cannot fight without ammunition, so the Museum is unable to improve its deteriorating position without adequate funds.

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# TOWARDS NEW HORIZONS

## By A. E. PARR, DIRECTOR

SHORTAGES and uncertainties still retarded the physical execution of the Museum's exhibition plans during 1946-1947. Significant advances were made in many directions, but comparatively few projects were brought to final completion, and many of the larger tasks had to be deferred. In spite of these limitations upon physical execution, the year just passed was one of unusual importance for the development of the Museum's educational exhibition program. It was a period of clarification and redefinition of our purposes and renewal of our faith in the great human significance of the teachings a museum of natural history should be able to offer to a troubled world.

The basic purpose of education is to help bring order into our thinking by laying a foundation of facts for our reasoning and teaching us how to relate our conclusions to the evidence by logical methods of deduction. The greater the mental confusion of the times, the greater the challenge to education, and the greater the value of teaching properly conceived and directed towards the elucidation of the problems which disturb the world. In times of prosperity and contentment, education may prosper materially with the rest of the world, but it tends to become aimless and diffuse in its effects to the detriment of its broader purpose of preparing man for intelligent membership in a democratic society and not merely for a personal position for himself. It is in times of change and uncertainty that the potential services of education reach their highest value to humanity, and it [Page Nine] is in such times that the institutions which respond to the call gain their greatest intellectual growth and earn their highest public esteem.

In a world beset by hostility and want, the natural history museums have an opportunity, never before equalled, to serve the development of peace and of a better life for all by bringing their educational facilities and their scientific knowledge to bear upon the task of creating a better understanding of our own problems in relation to the country that surrounds us and supports us, and of the problems of other nations in relation to their natural circumstances, to one another, and to us.

In order to teach a better understanding of the relationship between any nation and its environment it becomes necessary to plan for a greater emphasis upon the study of nature as a whole rather than of its separate parts, because it is the integrated response of all the combined forces of nature that determines the success or failure of a nation's dealings with its natural environments. For an individual bent on catching a flounder or raising a crop it is sufficient to know the habits of the flounder or the characteristics of the variety of corn he plants. A few flounders caught or a couple of acres planted do not bring forth any over-all reaction by the entire complex of natural forces. But if we wish to be able to go on catching flounders or raising crops, on a national scale, we have to understand and take into consideration all the forces and factors of the entire environment, its climate and oceanography, the chemistry of soil and sea, plant and animal life, the competition between species, and all the interactions between life and the inanimate world. When a people acts as a whole, nature also responds in the same way, and a state of total war between man and nature usually develops [Page Ten]

before the lasting peace of a balanced relationship can be attained. It must be one of the tasks of the Museum to study and to teach both the protection and the proper use of nature and the natural resources on which we all depend for our sustenance and for our enjoyment of the environments in which we live. The Museum's acceptance of this responsibility has found expression in many new features incorporated in the plans for new exhibition halls developed or completed in 1946-1947, notably in the proposed Hall of the Local Landscape and the new Hall of Forestry, with which we are now ready to proceed. Similar features will also be introduced in the treatment of other subjects as the program advances. By the execution of these plans, the Museum should be able to contribute in an elementary but none the less significant manner to the improvement of the relationship between man and nature in the continued development of our country.

In the field of international understanding the Museum also has a great and sorely needed contribution to make. One of the first requirements for a real understanding between the peoples of the different regions of the world is that there should be an understanding of the possibilities and limitations, the advantages and, especially, the hardships of the natural conditions under which each nation faces the struggle for its daily existence. It is very easy to sit in New York and philosophize about the superior ways in which the peoples of the Balkans or of Bengal ought to be able to improve themselves and their lot in life. It is equally easy to sit in another part of the world and do the same concerning regions of the Western Hemisphere and of our own country. But the kinds of opinions and advice that result from such speculations in a vacuum are generally likely to prove [Page Eleven] offensive rather than conducive to a better understanding between the peoples of the world.

It seems obvious that the natural history museums could become a major, if not the major, instrument for the teaching of this sorely needed basic understanding of the natural, nonpolitical foundations for the lives of the different nations. They have the facilities and the "know-how" of presentation. And, more important, they reach a vast adult audience which would be unwilling to give its time and attention to the more formally scheduled types of adult education projects. Our Museum alone has over two million visitors per year.

In order to meet this challenge of our times, the Museum therefore proposes to supplement the systematic illustrations of the various faunas of the world with some new halls in which an attempt will be made to give a complete, although abbreviated, picture of the natural conditions of some of the more critical regions of the world, their topography and climate, geology and natural resources, fauna and flora, and any other environmental factor that may be of importance for an understanding of the problems of the area involved. Again, we must, of course, begin with our own country. The other regions which are being considered for such over-all treatment are the Mediterranean area as a whole and northern Asia.

But a natural history museum such as ours, which also includes anthropology within its scope, can go still farther. Beyond the review of the contents and character of the environment itself, a museum so organized can also show the various ways in which the peoples of the world have adjusted themselves, their customs, and social organizations to the natural conditions they have had to contend with. The successes and the failures experienced [Page Twelve] in the adjustments could be explained and, being understood, would create approval or sympathy instead of jealousy or scorn. With a better understanding of their circumstances we would develop a fairer judgment of our fellow men and lay a better foundation for lasting peace. And beyond the analysis of the relationship between peoples and their non-human environments, the Museum, through its Anthropology Department, has yet a further contribution to make to international understanding in the modern world, by a demonstration of the cultural interactions and interchanges between the various human populations themselves, as they establish contact with one another or overflow their original boundaries to mingle their customs, traditions, and biological heritage in new environments.

To lay the groundwork for this broadened treatment of man and nature, we propose to start with a new Hall of Comparative Anatomy in which special attention will be given to the primates and man. This will be followed by a hall dealing with the physiological foundations of human and animal behavior, the functions of the glands, the sensory organs, and the central nervous system, and the significance of these functions in determining how the organism reacts and behaves; the basic principles involved in the process of learning common to man and animal: and many others of the universal elements of behavior which spring from physical constitution rather than individual mentality or social tradition. From the presentation of man as a comparatively simple biological organism, basically similar to his ancestors and to his contemporary fellow creatures, we shall proceed to an exposition of man as a social being. Exhibits will be installed to demonstrate such subjects as the methods and paraphernalia used by various civilizations in order to [Page Thirteen]

develop in the young mental attitudes and the physical responses required of the adult members of the particular type of society to which the individual belongs. An attempt will be made to explain the different prestige patterns characteristic of different cultural traditions or different stages in cultural development, according to the relative respect and powers which society confers upon such groups as its warriors, its scholars or its traders, upon the aged and wise, or the young and inventive, upon male or female, and upon other classifications of the individuals. Other exhibits will be concerned with the functions of parents and the division of labor between mates, with the basic units used in the organization of different kinds of societies, such as family or tribe or sexually segregated groups, and with other topics.

The treatment of man as a social being is to be followed by another new hall dealing with the origins and spread of material culture, that is, of tools and technologies, housing, clothing, transportation, agriculture and animal husbandry, language and writing, ornamentation, ceremonial practices, and art. Through such lessons on the universality of the basic building stones of any modern material culture, however different the social structure in which they are used, we shall not only contribute to an increased factual knowledge and understanding but also to an increased appreciation of the contributions made by the whole world to the things enjoyed in any part of the world today.

Having shown the general principle governing man's evolution and existence as a social being and a bearer of culture, we shall then proceed to a review of the nature and development of civilization in specific areas. This will be accomplished by the introduction of anthropology [Page Fourteen]

into the new halls in which we have already proposed to make a complete review of the natural environment. Thus the new North American Hall, which is the first on the list, becomes a hall of America and the Americans. In addition to an exposition of the natural conditions and resources of our continent-its climate, topography, geology, soils, vegetation, and animal life-we shall attempt to analyze in broad terms the cultural and biological origins of our nation, its impact upon the country, and the adjustments man himself has had to make to meet the natural conditions of the New World. In short, we shall try to explain to ourselves our own culture and our own country as they are today. And in the other regional halls we shall proceed to deal in a similar manner with the anthropology of the Mediterranean basin and of northern Asia, including Siberia, which are areas of great anthropological interest and of particular importance for an understanding of the contemporary problems of humanity. In addition to the regional halls, which can cover only parts of the globe, there will also be a series of exhibits analyzing the conditions of the world by subjects, such as world climates in relation to human and biological geography; population distribution and land use in relation to the nature of the environment, treated on both a contemporary and a historical basis, tracing the successions and progressions of human occupation; the general distribution of geological resources (minerals and metals) and its relation to the distribution of material cultures and technologies; the mismanagement of natural resources and its consequences for human society; and the relationship of disease to the geographic distribution and development, or decline, of human civilizations both in the past and in the present.

The lists of special subjects suggested on these pages
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are, of course, incomplete even for the present plans. Nor should any such list ever come to be regarded as final so long as the process of change remains the essential distinction between life and death, and the Museum continues to concern itself with the problems of the living. But the topics that have been mentioned will probably be sufficient to illustrate the general nature of the proposed program by which the Museum hopes to be able to expand and to enrich its contributions to human progress through general education.

In the creation of these new exhibits the knowledge and ingenuity of all departments will be brought into play in a joint effort to tell the whole story of nature and man, in so far as it comes within the province of natural history and anthropology to tell it. But it must not be understood that these new topics in the Museum's exhibition program are to replace the subjects already dealt with or cause them to be neglected. On the contrary, the plans also call for a renovation and reinstallation of the great majority of the existing exhibits, excepting only those in the vicinity of the Roosevelt Hall which have already been brought to such perfection that significant improvement would be beyond the means of present-day techniques. The separate and systematic display of the subjects, materials, and principles discovered in the various branches of the natural and anthropological sciences must always remain a basic feature of museum exhibition, which the public and the educational world must be able to rely upon finding within our walls, and which we ourselves must use as the basis for the synthesis of our story of nature and man. Many of these exhibits are now in a deplorable condition. scarcely fit for public display, and very few are satisfactory according to modern standards. The renovation [Page Sixteen]

of the old and tested subjects must therefore go hand in hand with the creation of those that are new. The Museum is ready and anxious to proceed with both.

In the course of the year good progress was made in the preparation of exhibits for the Sanford Hall of Birds, for the future halls of botany, forestry, and the local landscape (ecology), and the small mammal groups in the Hall of North American Mammals. A comparative exhibit of "Native Carvings," related to the materials used and purposes served by the objects, replaced the exhibit of "Masks and Men," and was very favorably received by laymen and experts. A number of temporary exhibits of newly received material were placed on display by the Anthropology Department. Among the more important ones was an excellent collection from the Solomon Islands, gathered by the late Lieutenant Commander John Burke, which gave the Museum an opportunity to show a fine series of objects that will rapidly disappear from the material cultures of the Pacific Islands under the circumstances of today. Α similar collection from Okinawa was also shown in a temporary installation, and work was begun on several important and dynamic additions to the permanent exhibits of American Indian cultures. The southeast corner hall on the second floor, previously almost empty, was converted into a pleasing gallery for temporary exhibits and space for the new public relations office. Several exhibits were shown in this new gallery, beginning with one dealing with the principles of atomic energy.

An important development in exhibition also took place in the Hayden Planetarium with the installation and opening to the public of the Joseph Prentice Willetts

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Memorial exhibits in meteorology, in which an attempt is made to explain the phenomena of winds and weather by realistic scale models. The simultaneous establishment of the Joseph Prentice Willetts Memorial Fund, by gift of the Willetts family, insures the Museum's opportunity to continue this educational exhibition program in the future and to keep it up to date.

The ethnographic dance and lecture programs offered free to the public by the Museum's Department of Education have achieved such popularity that it became necessary to restrict attendance at the dance recitals to adults and to require that the visitors receive cards of admission in advance to avoid overcrowding of the auditorium. These lectures and performances had a total attendance of 39,191 during 1946-1947. A grant from the City of New York also enabled the department to carry forward the activities of its excellent and unique platoon program for public school classes, under which 63,086 pupils spent a whole day each studying at the Museum under Museum guidance. This corresponds to 318,430 student hours. The department also continued its loan services to schools, libraries, and colleges through which a vast number of people of all ages benefit from the Museum's knowledge and materials, outside the Museum itself. A tabulation of the number of people reached and the student hours provided for by these activities might perhaps be of general interest.

### A. At the Museum itself, and the Trailside Museums:

1. Teaching services by the department's own staff: Platoon program 318.430 student hours

r mooon brogram	010,100	000
Film programs for pupils	73,362	ind
Tours and guiding	9,154	ind

individual attendance

individual attendand

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General and teachers		1. 1.
courses	10,321	individual attendance
Lectures to outside		
organizations	5,906	individual attendance
Children's story hour	2,332	individual attendance
Trailside museums	150,000	individual attendance
Special exhibition	73,181	individual attendance
Programs for individual		
organizations	51,416	individual attendance
	694,102	
Activities sponsored and	organized	by the department:
Dance and lecture program	ns 39,191	

Audio-visual aids institute and information 5,075

2.

Total within the Museum 738,368

B. Individuals reached by loan services outside the Museum:

1.	Circulation of films	4,500,000	estimated
2.	Circulation of slides	578,584	recorded
3.	Circulation of collections	9,136,891	recorded
	Total outside the Museum	14,215,475	

The Education Department was also responsible for the exhibit on "Native Carvings," already mentioned, and can justly be proud of its services to the Museum and the public.

The special educational activities inaugurated in the Hayden Planetarium have also met with a gratifying success. Four courses for the general public, started in the spring of 1946, were carried forward with a total registration of 468 for the full series and an additional admission of 574 persons to individual lectures. A new course on the Science of Nautical Astronomy was introduced, at the request of the War Shipping Administration, for students enrolled in a refresher course for [Page Nineteen] mates and masters at Sheepshead Bay. The Planetarium received 62,314 grammar school students free under the Platoon Program, and 17,091 students under a Junior High Schools Science Program. It also offered a thirtyweek course to science teachers in the city schools and students in City College. The Copernican room and the dome of the Planetarium itself were both completely refinished, with great improvement in the effects that can be achieved in the performances.

The Planetarium had a total paid attendance of 361,510, representing an increase of 29,188 over the previous twelve-month period, and an over-all attendance at all functions of 446,313. The Museum and Planetarium together received 2,142,563 visitors, and the Museum ended the year with a membership of 42,192.

The establishment of the Lerner Marine Laboratory at Bimini, Bahamas, by gift of Michael Lerner, represents a most important addition to the Museum's research facilities both for its own staff and for the guests and associates of the institution who might want to participate in the study of marine biology and oceanography. In spite of the difficulties in obtaining the necessary materials and supplies, it is expected that the laboratory will soon be ready for full operation under the direction of the Chairman of the Department of Fishes and Aquatic Biology. The existence of such a laboratory will not only serve to expand and enrich the Museum's contributions to pure and applied research, but will also help to maintain the vitality of our exhibition program and other educational activities in the field of marine biology, which is a subject singularly difficult to keep alive in the confinement of offices and laboratories divorced from the natural realm of their objects of study.

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It would be very gratifying if the Museum could also, on a smaller scale, be provided with a laboratory for the study of desert biology, a subject which proved to be of considerable significance during the war and which obviously will be of increasing importance for our understanding of nature both in itself and as an environment for man, with the increasing settlement, exploitation, and improvement of the marginal areas of the world. The Department of Amphibians and Reptiles, in cooperation with other departments, has for several years concerned itself with the study of desert life but lacks the facilities for instituting an adequate program of research.

Nearly all departments of the Museum had expeditions in the field at various times during 1946–1947. Notable among those that returned with their results before the end of that period was the Vernay Nyasaland Expedition, under the leadership of Arthur S. Vernay. Large botanical collections, 1800 mammals, and many other zoological specimens were obtained and divided among the Museum, the New York Botanical Garden, and the Kaffrarian Museum of South Africa, which participated in the work. The Rutherfurd African Expedition, led by Mr. and Mrs. Hugo Rutherfurd, also returned with valuable collections of mammals.

Exploratory search by two parties from the Department of Geology and Paleontology during the summer of 1946 laid the foundation for intensive field work during 1947, with unusually important results to be dealt with in our next annual report.

Mr. John C. Pallister was able to spend nine months in Peru making extensive, and in many respects unique, collections for the Department of Insects and Spiders, as a result of the continued support received by the department from Mr. Frank Johnson. Other expeditions [Page Twenty-one] provided for by Mr. Johnson, Dr. William Procter, and Dr. David Rockefeller were in the field at the end of the period here reported upon.

The Departments of Birds, of Amphibians and Reptiles, and of Animal Behavior made joint explorations in Mexico.

Mr. Junius B. Bird, of the Anthropology Department, was in the field during the entire time of this report. The principal aim of Mr. Bird's excavations was to find pre-ceramic cultural levels that might throw light on the earliest developments of Peruvian civilization. These excavations were highly successful and yielded sufficient material to define a pre-ceramic period, probably lasting well over 1000 years. Surprisingly, in this period there is evidence of diverse agriculture, with squash, gourds, peppers, beans, and cotton as the plants probably cultivated. A number of wild plants and fruits were utilized as foods, and the diet also included fish, limited quantities of shellfish, birds, sea lion, and porpoise.

The material culture was on a very simple level. No weapons other than toy slings were found, no ornaments were in use, and tools other than unworked crude stone flakes were very infrequent. In spite of this poverty of material equipment, textiles were abundant, and bark cloth was also used. Houses in the latter half of this period were small subterranean structures made of cobblestones laid in mortar. There was no pottery, but fragments of crude ceramics were found in the residue of a later culture resting on top of these older deposits, which are thus shown to be of pre-ceramic age.

The results of these researches are expected to appear in a report that should make a major contribution not only to the archaeology of Peru but to our knowledge of the origin and development of aboriginal American civilization.

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Mr. Gordon F. Ekholm also spent five months collecting for the Department of Anthropology in the vicinity of Vera Cruz. A large amount of material and data has been gathered which promises to give a general outline of the cultural history of this important but largely unknown area of Mexico.

As one may see from the foregoing account of expeditions and field work, and from the bibliography on pages 25 to 37, the members of the staff were able to pursue their scientific efforts with undiminished vigor and unusually important results in many directions in spite of often inadequate help and increasing demands upon their time for other functions. It is to be hoped that a reasonable balance can be struck so that these achievements can continue and good men can find encouragement to participate in the educational functions of the Museum because they also find opportunity to increase their own knowledge and that of the world.

In addition to the results of the expeditions sponsored by friends of the Museum, all departments also received numerous gifts of scientific specimens and collections. Notable among these were the following: a large ethnological collection from the South Pacific presented by Mrs. Martin Burke in memory of her son, the late Lieutenant Commander John Burke; a representative collection of North American Indian ethnology received from Mrs. J. Marvin Wright in the name of Major Junius MacMurray and Mrs. MacMurray; a large collection of Chinese opium pipes given, in part, by Mr. Percy J. Orthwein and Mr. George A. Bates; an ethnological collection from the Cameroons donated by Miss Lillian Lithgow in memory of Dr. A. Woodruff Halsey; a series of objects from Okinawa received from Mr. Toyama Seiken and Dr. Willard A. Hanna; 59,854 insects, chiefly butterflies, received from Mr. Frank Johnson; and a collection of over 5000 insects presented by Dr. William Procter.

In the course of the year Dr. Erwin H. Ackerknecht resigned from his position in the Department of Anthropology to take up his duties as Professor of the History of Medicine at the University of Wisconsin. Mr. Harry Tschopik, Jr., was appointed Assistant Curator of Ethnology. Dr. Albert P. Blair left the Department of Animal Behavior, and Dr. T. C. Schneirla accepted a full-time appointment as Curator in that department. The death of Dr. Milo Hellman, whose long association with the Department of Anthropology has brought great credit to the Museum, is a source of deep regret for our institution.

### PUBLICATIONS

This list includes all titles of scientific serial publications and books issued by the American Museum, and of other articles by staff members, except those by associates whose research was entirely done elsewhere, and those appearing in *Natural History*.

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- 1946. Contradictions in primitive surgery. Bull. Hist. Med., vol. 20, pp. 184–187.
- 1947. Primitive surgery. Amer. Anthrop., vol. 49, pp. 25-45.

#### Ahmad, Muzaffer

1947. New termites from the Indo-Malayan and Papuan regions. Amer. Mus. Novitates, no. 1342, 7 pp., 7 figs.

#### Amadon, Dean, and S. G. Jewett

1946. Notes on Philippine birds. Auk, vol. 63, pp. 541-559.

#### BELL, ERNEST L.

- 1946. A catalogue of the Hesperioidea of Venezuela. Bol. Ent. Venezolana, vol. 5, nos. 3, 4, pp. 65-203.
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- Science Guide Series, Nos. 1-129, 1901-June, 1947. Illustrated pamphlets describing exhibits, or series of exhibits, of special interest and importance, or dealing with the contents of an entire hall. 10c-\$1.00 each.
- General Guide to the Exhibition Halls of the American Museum of Natural History. 178 pages, many illustrations. 1943. \$1.00.

A SACRED ALMANAC OF THE AZTECS:

Edited by George C. Vaillant. Limited edition. Set of eighteen bound plates with explanation and introduction. From the original manuscript of pre-Spanish date. 1940. \$1.00.

## THE HAYDEN PLANETARIUM:

A guidebook. 32 pages, many illustrations. 1945. 50c.

#### SCHOOL SERVICE SERIES:

- A pamphlet, dealing with the Museum's first Nature Trails, by Frank E. Lutz, Curator, Department of Insect Life. 1931. Illustrated, 10c.
- Six pamphlets, dealing with the Nature Trails and Trailside Museum at Bear Mountain, by William H. Carr, Assistant Curator, Department of Education. Illustrated. 15c-25c each.
- Two pamphlets on Projects in Science and Nature Study, 15c-25c each.

- The Reopening of the Mexican and Central American Hall, February 25, 1944:
  - Addresses by Messrs. A. Perry Osborn, Archibald MacLeish, A. E. Parr, and Harry L. Shapiro, and sixteen full-tone plates illustrating the collections. 1944.

A LIST OF THE MAMMALS OF THE JAPANESE WAR AREA:

Pt. 1. New Guinea and Eastward. Pt. 2. The Greater Sunda Area (Islands of the Northeast Margin of the Indian Ocean: Andamans, Nicobars, Sumatra, Java, Bali). Pt. 3. Lesser Sunda Islands, Moluccas, Celebes. Pt. 4. Borneo and the Islands of the China Sea. By G. H. H. Tate. 1944. 15c each part.

#### SPECIAL ADMINISTRATIVE PUBLICATIONS

ANNUAL REPORTS OF THE PRESIDENT:

First Report, January, 1870-Seventy-seventh, 1946.

History, Plan and Scope of the American Museum of Natural History. 1911.

Annual Reports of the Pension Board: Nos. 1-30, 1913-1942.

STYLE SHEET FOR THE SCIENTIFIC PAPERS OF THE AMERICAN MUSEUM OF NATURAL HISTORY. 1943.

Price lists are available of publications on the following subects: Invertebrate Palaeontology, Vertebrate Palaeontology, Invertebrates except Arthropoda, Arthropoda, Ichthyology, Reptiles and Amphibia, Ornithology, Mammalogy, Anthropology, Geology, Mineralogy, Botany, Palaeobotany, and List of Maps.

All publications are issued by the Trustees. Applications for purchase or exchange may be made to the Librarian, the American Museum of Natural History, Central Park West at 79th Street, New York 24, New York.

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## REPORT OF THE TREASURER

The balance sheet showing the financial condition at June 30, 1947, and a summary statement of the income and expenses for the fiscal year ended June 30, 1947, follow:

[Page Forty-three]

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## THE AMERICAN MUSEUM BALANCE

JUNE 30,

#### ASSETS

## ENDOWMENT AND OTHER NON-EXPENDABLE FUNDS:

ENDOWMENT AND TRUST FUNDS:			
Cash in bank		\$190,870.03	
Investments at book value:			
Bonds	\$5,529,005.66		
Preferred stocks	4.589.868.18		
Common stocks	4,207,324.77		
Real estate	609 632.15		
Promissory notes	35,353.16	14,971,183.92	\$15,162,053.95
•	the second s		

CUR	RENT	FUN	<b>IDS</b> :
-----	------	-----	--------------

GENERAL FUNDS:				
Cash in bank on hand		\$21,886.35		
Accounts receivable		70,354.40		
Due from other funds (contra)		46,074.18		
Loans receivable		72,545.62		
Prepaid expenses		639.11	\$211,499.66	
Special Funds:				
Cash in bank		\$319,510.61		
Investments at book value:				
Bonds	\$128,124.67			
Common stocks	23,900.00	152,024.67		
Dues from other funds (contra)		567,658.26	\$1,039,193.54	
AUXILIARY ACTIVITIES:				
Cash in bank and on hand		\$102,009.29		
Accounts receivable		1,726.90		
Inventories		75,040.46		
Prepaid expenses		4,834.66	183,611.31	\$1,434,304.51

AGENCY FUNDS:				
PENSION FUND:				
Cash in bank		\$191,278.74		
Loan receivable		50.00		
Investments at book value:				
Bonds	\$1.671.723.80			
Preferred stocks	1.076.832.74			
Real estate	25,877.00	\$2,774,433.54	\$2,965,762.28	
OTHER AGENCY FUNDS:				
Cash in bank		\$21,838.75		
Accounts receivable		5,368.78	27,207.53	\$2,992,969.81
		<u></u>	<del>67</del>	\$19,589,328.27

## **OF NATURAL HISTORY** SHEET

1947

#### FUNDS AND LIABILITIES ENDOWMENT AND OTHER NON-EXPENDABLE FUNDS: ENDOWMENT FUNDE: Funds with income available for-Restricted purposes \$6,962.965.26 2,735,820.86 \$9,698,786.12 Unrestricted purposes FUNDS FUNCTIONING AS ENDOWMENT: Funds with principal and income available for restricted purposes \$50,463.93 Funds with use of principal subject to Board approval and income available for unrestricted purposes 1,153,226.47 Funds with principal and income available for unrestricted purposes 3.434.833.74 4,638,524.14 TRUST FUNDS: Funds with income available for-Restricted purposes 70.146.98 824,743.69 \$15,162,053.95 Unrestricted purposes 754.596.71 CURRENT FUNDS: GENERAL FUNDS: Suspense account \$3,000.00 Due to other funds (contra) 567,658.26 977.38 Reserve for departmental expenses \$571,635.64 15,000.00 Contributed capital \$586.635.64 Deficit July 1, 1946 For the year \$163, 598.47 211,537.51 375,135.98 \$211,499.66 SPECIAL FUNDS: Due to other funds (contra) \$5,074.18 1,034,119.36 \$1,039,193.54 Balances of funds AUXILIARY ACTIVITIES: Accounts payable \$8,449.79 Accrued expenses 119.91 Suspense account 585.68 Due to other funds (contra) 38,000.00 69.032.08 Deferred income \$116,187.46 Surplus: July 1, 1946 \$63,749,19 For the year 3,674.66 67,423.85 183,611.31 \$1,434,304.51 June 30, 1947 AGENCY FUNDS: PENSION FUND: \$2,964,792.47 Principal of fund Welfare fund 969.81 \$2,965,762.28

**OTHER AGENCY FUNDS:** Due to other funds (contra) Balances of funds

\$3,000.00		
24,207.53	27,207.53	\$2,992,969.81
		\$10 580 328 27

[Page Forty-five]

## SUMMARY STATEMENT OF ENDOWMENT AND OTHER NON-EXPENDABLE FUNDS

## For the year July 1, 1946, to June 30, 1947

BALANCE, JULY 1, 1946:			
Endowment funds		\$9.517.651.96	
Funds functioning as endowment		4.470.220.64	
Trust funds		824,709,10	
Temporary investment funds		142,940.39	\$14,955,522.09
Additions:			
New funds:			
Gifts and bequests		141,549.34	
Net profit on sales of investments:		• • •	
Proceeds	\$2,536,670.56		
Book value	2,266,088.92	270,581.64	412,130.98
	- <u></u>		\$15,367,653.07
DEDUCTIONS:			
Transferred to-			
Current funds:			
General funds	\$33,293.58		
Special funds	169,223.95	\$202,517.53	
Pension fund		3,081.59	205,599.12
BALANCE JUNE 30 1047-	,		
Badammant for Ja		*0 (00 70( 10	
Endowment runds		<b>39,090,/00.1</b>	
Truids functioning as endowment		924 742 60	\$15 162 053 OF
TTAST INHAS		047,/43.09	413,102,033.93

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## SUMMARY STATEMENT OF INCOME, EXPENDITURES, AND BALANCES OF THE CURRENT FUNDS

## For the year July 1, 1946, to June 30, 1947 GENERAL FUNDS

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INCOME:			
Appropriations from the City of New York		\$801,110.12	
Income from endowment and trust funds		671,012.11	
Income from outside trusts and foundations		40,305.72	
Sales and estrices		33,241,61	
Other income		20.507.34	
Contributions		93,815.09	\$1,711,371.99
Expenditures:			
Executive, administrative, and general expenses		\$464,327.37	
Care and use of collections and supervision of exhibit	tions	503,424.00	
Education and exhibition		261,744.69	
Operation and maintenance of physical plant and oth	er general	725 720 64	1 055 225.70
Busses of super distance over income		<u>/4J,/49.04</u>	\$242 952 71
Transferred from—			<i>\</i> 2\});0 <i>73</i> */1
Unrestricted funds functioning as endowment		\$17,725.19	
Temporary investment funds		15,568.39	
		33,293.58	•
Transferred to reserve for 1947-1948 expenditures		977.38	32,316.20
Deficit for the year			\$211,537. <b>51</b>
Deficit, July 1, 1946			163,598.47
Deficit, June 30, 1947			\$375,135.98
SPECIAL FU	ND8		
INCOME:			
Income from endowment and trust funds		\$34,674.53	
Royalty payments a/c Eudora Hull Spalding Bequest		500,000.00	
Sales and services		47,578.52	
Contributions		264,700.90	\$840,953.95
Expenditures:			
Executive, administrative, and general expenses		\$4,332.65	
Care and use of collections and supervision of exhibit	tions	237,240.07	240 907 22
Education and exhibition		0,434.31	249,007.23
Excess or income over expenditures Transferred from temporary investment funds			¥39/,140./2 160.223.05
			\$766 370.67
RATANGE OF FIDING July 1 1046			267 748 60
BALANCE OF FUNDE, JULY 1, 1970			\$1 034 110 26
DALANCE OF FUNDS, JUNE 30, 194/			\$1,034,119.30
AUXILIARY AC	TIVITIES		
Salaa	\$400 497 60		
Calcs A dwertising	3720,907.02 0.655 10		
Other income	3,183,88	\$433.326.60	
Deduct: Cost of sales		264,166.88	\$169,159,72
REPRINTE-			
Selling expenses		107.231.60	
Administrative expenses		5,447.98	
Financial expenses		9,940.09	. • .
Promotional expenses		42,865.39	165,485.06
Profit for the year			\$3,674.66
SURPLUE, JULY 1, 1946			63,749.19
SURPLUE, JUNE 30, 1947			\$67,423.85
-			

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## SUMMARY STATEMENT OF INCOME, EXPENDITURES, AND BALANCES OF THE AGENCY FUNDS

## For the year July 1, 1946, to June 30, 1947

#### PENSION FUND

BALANCE, JULY 1, 1946:			
Pension fund		\$2,819,677.51	
Welfare fund		977.81	\$2,820,655.32
Additions:			
New funds:			
Contributions by subscribing members Contributions by trustees and self-supporting	\$68,253.47		
activities	94,110.64		
Payments of interest on deferred contributions	352.36	\$162,716.47	
Net income from invested funds		105,286.10	
Net profits on sales of investments:		•	
Proceeds	\$1,946,709.68		
Book value	1,924,690.12	22,019.56	
Transferred from unrestricted funds functioning as			
endowment		3,081.59	293,103.72
			\$3,113,759.04
DEDUCTIONS:			
Payments to members and beneficiaries:			
Pension allowances	\$123,947.28		
Death gratuity payments	2,509.59		
Refunds of contributions with interest	19,651.84		
Welfare payments	8.00	\$146,116.71	
Investment servicing fees		1,880.05	147,996.76
BALANCE, JUNE 30, 1947			
Pension fund		\$2,964,792,47	
Welfare fund		969.81	\$2,965,762.28
OTHER AGENC	Y FUNDS		
INCOME:			
Receipts for a/c individuals and societies			\$395,121.52
Expenditures:			
Payments for a/c individuals and societies		•	388,278.06
Increase for the Year			<b>\$</b> 6,843. <b>4</b> 6
BALANCE OF FUNDS, JULY 1, 1946		-	17,364.07
BALANCE OF FUNDS, JUNE 30, 1947			\$24,207.53
=		•	

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## REPORT OF THE SECRETARY

## MEMBERSHIP

The total number of members and subscribers at the end of June, 1947, was 42,192, divided as follows:

Associate Members	27,871	Fellows	111
Annual Members	5,072	Honorary Fellows	6
Sustaining Members	144	Patrons	154
Corresponding Members	43	Associate Benefactors	45
Supporting Members	10	Associate Founders	9
Contributing Members	6	Benefactors	16
Life Members	833	Endowment Members	1
Honorary Life Members	77	Natural History subscribers7,	794

## STATISTICS OF ATTENDANCE

## THE MUSEUM

General attendance	1,408,109
Lectures, meetings, special exhibits, etc	288,141
Total	1,696,250

## HAYDEN PLANETARIUM

Paid admissions	361,510
Service personnel, free, July 1 to September 1, 1946	1,622
Special lectures	2,117
Classes, through the Board of Education, free.	79,405
Adult education shows	1,659
Total	446,313

#### Educational Services

Teaching services	694,102
Dance and lecture programs	39,191
Audio-visual aids institute and information	5,075
Films, reached by circulation	4,500,000
Slides and kodachromes, reached by circulation	578,584
Loans of circulating collections to schools, libraries, and colleges	9,136,891
Total	14,953,843

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<sup>1</sup>The President is ex-officio a member of advisory committees. <sup>2</sup>Member of the Staff.

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RICHARD ARCHBOLD, Research Associate

ARTHUR S. VERNAY, Field Associate

WILLIAM D. CAMPBELL, Field Associate

<sup>1</sup>Died July 8, 1947.

[Page Fifty-three]

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[Page Fifty-four]

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<sup>1</sup>Died July 8, 1947.

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<sup>1</sup>Representing Reuel Estill and Company, Inc.

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- CLARK WISSLER,<sup>1</sup> Ph.D., LL.D., Curator Emeritus, Department of Anthropology

<sup>1</sup>Died August 25, 1947. [Page Sixty]

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## THE AMERICAN MUSEUM OF NATURAL HISTORY Incorporated by the

LEGISLATURE OF THE STATE OF NEW YORK IN 1869

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

#### FOUNDERS AND INCORPORATORS OF 1869

John David WolfeBenjamin B. ShermanMorris K. JesupRobert ColgateWilliam A. HainesD. Jackson StewardBenjamin H. FieldTheodore RooseveltJ. Pierpont MorganRobert L. StuartHoward PotterA. G. Phelfs DodgeAdrian IselinWilliam T. BlodgettCharles A. DanaJoseph H. ChoateHenry Parish

#### HISTORY

PRESIDENCY OF JOHN DAVID WOLFE, 1869-1872.

- 1869 Museum incorporated. Constitution adopted as drafted by Joseph H. Choate
- 1870 First home secured, the Arsenal, Central Park.
- 1871 The City of New York appropriated \$700,000 for building. (Section I.)

PRESIDENCY OF ROBERT L. STUART, 1872-1881.

- 1874 Cornerstone of first section of building laid by President Ulysses S. Grant.
- 1878 Contract adopted between Trustees and Department of Parks, as drawn up by Andrew H. Green and Joseph H. Choate.
- 1880 Educational work with the schools inaugurated by Professor Albert S. Bickmore.

PRESIDENCY OF MORRIS K. JESUP, 1881-1908.

1892 Museum opened to the public on Sundays.

- 1887—1905 The City of New York appropriated \$4,218,820.94 for eight new building sections, II-VIII, and XV.
- 1907 Museum opened free to the public every day in the year.
- 1908-1917 Mr. and Mrs. Jesup bequeathed \$6,000,000 to the Museum.

PRESIDENCY OF HENRY FAIRFIELD OSBORN, 1908-1933.

- 1908 Constitution amended making the Mayor, the Comptroller, and the President of the Department of Parks, ex-officio members of the Board of Trustees.
- 1921 Greater New York Charter amended, placing the Museum on the same basis as Public Schools with respect to Corporate Stock Appropriations by Chapter 618 of the Laws of 1921, State of New York.

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#### HISTORY-(Continued)

- 1921—1925 The City of New York appropriated \$2,233,800 for new sections, IX-XI, and equipment and alterations of old sections.
- 1924 The State of New York provided for the Theodore Roosevelt Memorial. Cost \$3,500,000. (Original Chapter 615 Laws of 1924.) (Building Section XII.)
- 1929 Appropriation of \$3,550,000 by the City of New York for construction of African Wing, Power Plant and Service Building, and Whitney Wing. (Sections XIII, XVII, and XIX.)
  - Contribution of \$750,000 by Harry Payne Whitney for one-half cost of Whitney Wing. (Section XIX.)
- 1932 Completion of the African Wing. (Section XIII.)
- 1933 Completion of the Whitney Wing. (Section XIX.)

PRESIDENCY OF F. TRUBEE DAVISON, 1933-

- 1934 Contribution of \$156,000 by Charles Hayden for purchase of Zeiss Projection Planetarium and Copernican Planetarium.
  - The American Museum of Natural History Planetarium Authority erecting Planetarium Building with funds (\$650,000) secured through loan from the Reconstruction Finance Corporation. (Section XVIII.)
- 1935 Opening of the Hayden Planetarium. (Section XVIII.)
- 1936 Dedication of the Theodore Roosevelt Memorial. (Section XII.)
- 1942 Constitution amended making a representative of the Board of Education of the City of New York an *exofficio* member of the Board of Trustees.

#### CAPITAL FUNDS

The Capital Funds were established in 1884. They now amount to \$15,162,053.95 (book value). The Trustees especially desire to insure the permanent growth and welfare of the Museum through an increase of the General Endowment Fund. The additional sum of \$10,000,000 is needed at present.

## FORM OF BEQUEST

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

#### GIFTS AND BEQUESTS EXEMPT FROM TAXATION

Gifts to the American Museum of Natural History are exempt from Federal Income Tax, subject only to the general limitation that the total deduction for charitable gifts in any year may not exceed fifteen per cent of the donor's net income.<sup>1</sup>

Gifts and bequests in any amount to the American Museum of Natural History are exempt from Federal Gift and Estate Taxes.<sup>2</sup>

#### MEMBERSHIP, CONTRIBUTORY AND HONORARY

Associate Members	(annually)	\$4	LIFE MEMBERS	\$1,000
ANNUAL MEMBERS	(annually)	10	PATRONS	5,000
SUSTAINING MEMBERS	(annually)	25	Associate Benefactors	10,000
CONTRIBUTING MEMBERS	(annually)	50	Associate Founders	25,000
SUPPORTING MEMBERS	(annually)	100	Benefactors	50,000
Fellow		500	ENDOWMENT MEMBERS	100,000
HONORARY LIFE MEMBERS		HONORARY FELLOWS		
	-			

CORRESPONDING MEMBERS

FOR INFORMATION APPLY TO THE SECRETARY OF

THE AMERICAN MUSEUM OF NATURAL HISTORY

## Central Park West at 79th Street New York 24, N. Y.

<sup>1</sup>The same deduction is allowed for New York State Income Tax. <sup>2</sup>A similar exemption is granted from New York State Estate Tax.

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# THE AMERICAN MUSEUM OF NATURAL HISTORY PLANETARIUM AUTHORITY

The Hayden Planetarium is operated by the American Museum of Natural History for the Planetarium Authority in accordance with a recorded management agreement.

The balance sheet showing the financial condition at June 30, 1947, and a summary statement of the income and expenses for the fiscal year ended June 30, 1947, follow:

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# THE AMERICAN MUSEUM OF NATURAL HISTORY PLANETARIUM AUTHORITY . . ... .

## BALANCE SHEET

# June 30, 1947

~+

ASSETS		•
Cash	:	•
Operating fund	\$63,028.25	
Surplus fund	1,425.00	\$64,453.25
Accounts receivable		471.74
Inventory of publications		5,716.50
Prepaid expenses		1,892.09
Building and equipment	646,771.04	
Less: Depreciation	50,846.41	595,924.63
Planetarium instruments	156.869.27	
Less: Depreciation	122.818.20	34.051.07
		\$702 500 28
	. *	¢/02,509.20
LIABILITIES		
Interest on bonds (past due)		\$194,040.00
Accrued interest on bonds (current)		2,610.00
416% refunding serial revenue bonds (past due)		222,000.00
416% refunding serial revenue bonds (current and future maturities)		348,000.00
Loan from the American Museum of Natural History		72,545.62
Interest on loan from the American Museum of Natural History		13,274.45
Deferred income	:	1,454 54
		\$853,924.61
Deficit, July 1, 1946	\$425,561.82	
Deficit for the year	13,647.33	
	\$439.209.15	
Less contributed capital	287,793,82	
Deficit June 20, 1047		181 418 22
1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1		171,417.55
		\$702,509.28
		and the second se

# SUMMARY STATEMENT OF INCOME, EXPENSES, AND DEFICIT FOR THE YEAR ENDED JUNE 30, 1947

Descrit for the year	• • •	\$13,647.33
Depreciation	14,603.46	163,921.67
Interest on loan from the American Museum of Natural History	1,838.82	
Interest on bonds	25,650.00	
Navigation course expenses	709.55	
Publicity expenses	2,221.54	•
Administrative expenses	36,072.12	
Operating expenses	\$82,826.18	
Expenses		
Profit from sales of publications	2,771.02	\$150,274.34
Other income (fees, etc.)	5,819.82	
Admission fees	\$141,683.50	
Income		

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# THE AMERICAN MUSEUM OF NATURAL HISTORY PLANETARIUM AUTHORITY

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