

THE PEABODY MUSEUM OF AMERICAN ARCHÆOLOGY AND ETHNOLOGY IN CAMBRIDGE.

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THE President has suggested that it would be acceptable to the society to have a brief account of the Museum of American Archæology and Ethnology in Cambridge.

With such critical résumés as those of our lamented Haven and our honored Winsor ready at hand, I am not called upon to review what was known relating to the native races of America previous to October, 1866, when George Peabody gave \$150,000 for the foundation of a museum and professorship of American archæology and ethnology, in connection with Harvard University. Nor is it required that I should give an account of the few museums and collections in this country, which, prior to 1866, contained objects collected from various tribes of North American Indians, or from Mexico, or from Peru, or picked up here and there over the land. You all know that such collections were not very numerous and that but few were of any special interest or importance. Even the collection made by Squier and Davis, during their researches in the Ohio Valley, was nearly all sold to the Blackmore Museum in England, so slight was the general interest in this country in relation to our antiquities. It is, however, the great work of these authors, "The Ancient Monuments of the Mississippi Valley," published as the first volume of "Contributions to Knowledge" by the Smithsonian Institution in 1848, that began the new epoch in American archæology.

It is interesting to us that this work, which has held so prominent a place in American archæology, was followed three years later by Morgan's great ethnographic study, "The League of the Iroquois," and that in this same year, 1851, Professor (now Sir) Daniel Wilson, then on the other side of the Atlantic, gave to the world the term *prehistoric*, using this word in the title of his instructive volumes, the "Prehistoric Annals of Scotland," to designate a time preceding the historic records of his country.

I think we may fairly reckon the beginning of a new epoch in archæological investigation as coincident with the introduction of this new term, prehistoric. Although much good work was done before, and in America there were a few men who had made important researches¹ and whose work was largely incentive to what followed, it was about that time the great impetus was given to archæologic research in Europe and America. Workers and publications rapidly multiplied and many collections and museums were begun, while anthropological societies and journals greatly increased in number. Sir John Lubbock—in the preface to the first edition of his "Prehistoric Times," published in 1865, a book which above all others in its several editions has been the means of awakening a general interest in the study of early man,—thus refers to this important period when he writes: "Ethnology, in fact, is passing at present through a phase from which other sciences have safely emerged; and the new views with reference to the Antiquity of Man though still looked upon with distrust and apprehension, will, I doubt not, in a few years, be regarded with as little inquietude as are now those discoveries in astronomy and geology, which at one time excited even greater opposition."

We have already come to that time when the antiquity of man is no longer disputed; the only question is, how much greater is his antiquity than we have positive evidence.

¹As Atwater, in 1820, whose paper is in the 1st vol. of the *Archæologia Americana* of this Society.

It was, then, during this period of great impulse given to archaeological and ethnological research in all directions, that the Museum at Cambridge was founded. Anthropology had become an established science, embracing many well-defined subdivisions, and man was being studied under all his aspects. The science of man was no longer phrenology; ethnology had a definite meaning, and archaeology became the study of the works of man in prehistoric times. The day had gone by when collections of bric-a-brac were designated museums.

It was a fortunate time for the establishment of a museum to be devoted to the single object of the study of man. There was no dead weight of the past for it to carry, and it could start with and keep abreast of the times. It was also most fortunate that its first curator, my honored predecessor, Professor Jeffries Wyman, was a man trained in the science of comparative anatomy, so that he naturally brought his life-long methods of study to the new work before him, and began a collection which should furnish the means of a comparative study of man and his works. Unfortunately, he was destined to give but eight years of his life to this new work, but we all know how fruitful were those years, notwithstanding his almost constant struggle with ill health. During this time, and for several years following, the collections, which were constantly increasing in size and importance, were arranged as far as possible in the limited temporary quarters in Boylston Hall. In 1877, the first section of a fire-proof museum building was completed as a part of the great University Museum, between Divinity Avenue and Oxford Street. This section is 80 by 40 feet, and five stories high. As fast as the cases could be put up, one portion after another was arranged and opened to the public. So rapidly, however, did the increase of the collections take place¹ that before the rooms in this

¹As an illustration of this increase I may state that, during the past year nearly as many specimens have been received as were comprised in the entire museum at the time when I was placed in charge, fourteen years ago.

section of the building were fairly supplied with suitable cases, their insufficiency for the proper arrangement of the specimens became apparent; and many important collections have for several years been stored so that they could be used for special study though unseen by visitors. This deficiency of room has, within the past year, been supplied in part by the addition of 60 by 60 feet as the second section of the building; and as fast as these five halls and galleries can be furnished with cases the systematic arrangement of the collections will be carried on. This building as it now stands is only one-half of the contemplated structure, and it is to be hoped that means may soon be secured to erect the remaining portion, in order that the arrangement of the Museum as a whole, with all its collections in their proper order and sequence, may be carried out. It is worthy of remark in this connection that although nearly \$120,000 has been expended in the erection and equipment of the present building as it stands to-day, there is still left one-half of the original gift of \$60,000 designated for the building, and that the Museum and Professor funds of \$45,000 each have remained intact. Certainly this is a good exhibit of the financial management of the funds by the Trustees, of which the Hon. Robert C. Winthrop has been chairman from the first; and but few trusts can, I think, show better results, both in the fulfilment of the objects of the trust and the careful management of the finances, than this one of twenty-three years' standing. Yet the Museum is greatly in need of funds for its further development, and the Trustees now hope that its acknowledged importance, together with its careful management in the past, will soon bring special foundations for its requirements.

In making this allusion to the Board of Trustees upon whom so much labor has devolved, I may be permitted to remind you that the President of this Society is by virtue of his office one of the seven members of the Board, and I

may add that our late lamented President, the Hon. Stephen Salisbury, was the first treasurer and for sixteen years had the special care of the funds of the Museum.

That a wrong impression may not be conveyed in relation to the work which has been accomplished by the Museum, notwithstanding its limited income, it is proper for me to state that for ten years past the income of the Museum fund has been hardly sufficient to meet the necessary expenses of administration. Hence it would have been impossible to have carried on the important researches which have been made in the field, had it not been for the liberal contributions of friends for this purpose; and among the contributions should be included the \$8,000 for the purchase and preservation by the Museum, of the Serpent Mound and its immediate surroundings, and for explorations in its vicinity. It is upon such aid that the Museum must depend for all it may do in the future, as its expenses of administration have increased now that the building is double its former size.

The methods of research instigated and conducted by the Museum together with the special method of arrangement of the collections, have made it of the first importance in the study of American archaeology. Much instructive material has also been gathered relating to the existing tribes of America; but heretofore, for want of room, little of a purely ethnological character could be exhibited. In the new halls, however, there will soon be an instructive exhibition of this material. The collection of about 2,000 crania and many hundred skeletons, only a small part of which have been heretofore exhibited, will also be brought into proper places in the general plan of arrangement, and will greatly assist the visitor in reading the story of the peoples of the past.

In relation to the methods of field research and the arrangement of the principal collections, which have given to the Museum its prominent position, it may be stated that

in the first case, the collections have been largely made by trained explorers in the field, who have done their work in a thorough manner and have brought together masses of material of inestimable value for study, as each object is authenticated and the exact conditions under which it was obtained and its association with other objects fully recorded. In this way the larger part of the collections has been obtained from the systematic and thorough explorations of burial-places, caves, shell-heaps, village-sites, mounds and ruins in many parts of North, Central and South America; as well as many extended examinations of gravel beds, peat bogs, river and other deposits of greater or less geologic age. In all this work the rewards of patient research have been great, as may be seen by the large number of specimens thus secured. These visible results, however, are but a portion of those obtained in relation to the past history of man in America. The field notes, drawings, plans and photographs, which form such an important part of all thorough exploration, furnish additional means for a comparative study of one set of objects with another.

In the second case, by the arrangement in the Museum of these special collections, each as a whole, in their geographical sequence, each tells its own story in all its details. No selection of specimens, in order to show the most perfect, strange or specially interesting objects, is permitted. All are arranged so as to tell their story to any student, with fidelity to the facts as they are. Any visitor can thus go from case to case and obtain through the eye an impression of the particular condition or stage of development of any one people as shown by their works. Comparisons can be readily made between objects found under similar conditions, and by going to the next series in the room another comparison can be made between peoples closely related geographically. Or, the comparisons can be made between one geographical region as a whole and that of another, by

going from one room or gallery to the other. In this way a series of distinct pictures are impressed upon the mind of the visitor, and the student has the means at hand for making comparative studies, without having constantly to eliminate objects which would attract the eye and convey false impressions.

The value of this arrangement is very soon appreciated by all students who visit the Museum, and so long as it is permitted to remain, the student of any future generation will have the same opportunity of drawing conclusions from the study of any particular collection as did his predecessor who brought it together; and the way is kept open for the student to correct any errors in the conclusions of his predecessors.

In the discussion of such collections every one is left at liberty to advance such theories as he may, and to draw such conclusions as he will; but these collections should never be arranged to illustrate a theory, they should represent the facts only.

Other departments of the Museum will be arranged to illustrate various and special points in the history of man, as for instance: one to show, in as brief a way as possible, the physical characteristics and special arts and customs of each variety of man. Another will show the distribution of certain implements and weapons through time and space, and so on; but all such collections will be distinct and apart from the other departments of the Museum, and will be constantly subject to change according to the ideas of successive curators in charge of the Museum.

After this brief and imperfect sketch of the Museum, it remains for me to state the conclusions in relation to the ancient peoples of America, which, to-day, it seems legitimate to draw from a study of the collections in the Museum. However, with our limited knowledge these conclusions must be regarded as tentative only.

First, in regard to the evidence of the antiquity of man.

The considerable series of chipped stone implements from the gravel beds in New Jersey, Delaware, Ohio and Indiana, and from a certain deposit in Minnesota, give conclusive evidence that man existed previous to the deposition of these beds. The series of photographs and drawings placed with the specimens give good representations of the deposits in which the implements were found; and these deposits the geologists tell us are of glacial origin, but in some cases modified by the flow of water from the melting ice north of the terminal moraine. There is, therefore, no reason to doubt that the rude stone implements, found all the way from the surface of these deposits to a depth of 30 feet, are of the same age as the bed from which they were taken. The Trenton gravel, which is the youngest of the series, is the source of the greatest number of implements, as shown in the Abbott collection. This Trenton gravel rests upon another gravel deposit which is regarded by all geologists as immensely earlier in time than the Trenton; and yet in this earlier, or Columbia gravel as it has been designated by Mr. McGee, there have been found, by Abbott in New Jersey and Cresson in Delaware, several implements which give us the evidence of a still greater antiquity for man. The Trenton gravel we may now regard as the second epoch in the history of man in the palæolithic age.

Leaving out of consideration all other facts relating to the antiquity of man in America, we have here the evidence that man occupied a large portion of the Continent south of the great terminal moraine, at a time when the glacial region northward was under Arctic conditions. This gives us an antiquity for man, estimated by geologists as certainly eight to ten thousand years, since his implements were buried by the most recent of these deposits in the Delaware valley; and of many thousand years earlier if the chronology of the older gravels is correctly determined.

At all events, we have a considerable period of time through which we must trace the various changes that have

come to man in America since he was a contemporary of the mammoth and the mastodon, and was hunting the reindeer in the valley of the Delaware.

What became of this early man and what were his relations with other races are interesting problems which may in time be solved, and the collections in the Museum are of the greatest importance in this connection. In the Abbott, Cresson and Lockwood collections there is much which shows that this interglacial, if not preglacial, man advanced in his arts as the ice retreated northward, and that he learned to fashion implements of a delicate character by flaking pieces of argillite so as to form knives, spear-points, and probably arrow-heads, of which implements there are several thousand specimens in these collections.

These flaked implements of argillite were found under such conditions that they mark a more recent period than the palæolithic implements buried in the gravel, and yet are far older than the occupation of the region by the ancestors of the Indians known to history. The early implements of the latter are principally of jasper, chert and quartz, and largely of different forms from those of argillite. They are, moreover, seldom associated with the argillite points found beneath the black soil but never in the gravel. This is well shown by Dr. Abbott and exhibited in the collection bearing his name in the Museum. Similar facts are shown beyond question by the implements found in the different layers of a rock shelter, as exhibited in the Cresson collection.

The three periods of occupation of the Delaware valley are now well established and are designated as the palæolithic or the oldest, the flaked argillite or middle, and the jasper or Indian.

There are three human crania in the Museum which were found in the gravel at Trenton, one several feet below the surface and the others near the surface. These skulls, which are of remarkable uniformity, are of small size and

of oval shape, differing from all other skulls in the Museum. In fact they are of a distinct type, and hence of the greatest importance. So far as they go they indicate that palæolithic man was exterminated, or has become lost by admixture with others during the many thousand years which have passed since he inhabited the Delaware valley.

Time will not permit of an extended review of all the evidence that could be taken from the collections in the Museum relating to the several distinct races or varieties of man which have inhabited North America. A brief statement of conclusions must therefore suffice.

An examination of the different collections will show that a dolichocephalic race which is known as the Eskimo, extends across the northern portion of the Continent. While this race has marked peculiarities in physical features which are shown in part by their skeletons, and also in their arts and language, they have much in common with the dolichocephalic people adjoining them on the south and it may be that the two are varieties or branches of a common stock, both of which have mixed with palæolithic man during the argillite period. The Eskimo branch of this race seems to have been driven north and to have become greatly modified by the conditions of existence; while the other, in time, extended down both coasts of the Continent and somewhat into the interior. The descendants of this branch we know as the northern and eastern Indians.

Another race, distinct in many ways from the long-heads of the north, particularly in being a brachycephalic people, seems to have entered America on the Pacific side somewhere between Mexico and Peru, and to have sent its branches north and south. The greatest development of this short-headed race was in Mexico, Central America and the coast portions of northern South America as far as Peru. Its branches, however, attained a considerable development east of Mexico, as in the old Pueblo region, and as the ancient earthwork builders of the Ohio valley and the region

south to the Gulf. In the descendants of the branches of this short-headed race we have the Central Americans, the Mexicans, some of the Pueblo nations and a large element in the southern tribes.

In relation to the Carib stock of the West Indies and northern Atlantic coast of South America, the material in the Museum is too meagre to permit of any conclusions except that it probably became included in the mixture of some of the southern tribes.

Thus there are the following elements to be taken into consideration in any endeavor to trace the present North American tribes and nations back to their origin. First, small oval-headed palæolithic man. Second, the long-headed Eskimo. Third, the long-headed people south of the Eskimo. Fourth, the short-headed race of the southwest. Fifth, the Carib element of the southeast. All these elements must be studied with their differences in physical characteristics, in arts and in languages. From a commingling of all, with greater or less predominance of one over the other, uniting here and subdividing there, through many thousand years, there has finally resulted an American people having many characteristics in common, notwithstanding their great diversity in physical characteristics, in arts, in customs and in languages. To this heterogeneous people the name Indian was given, in misconception, nearly four hundred years ago, and now stands as a stumbling-block in the way of anthropological research; for under the name resemblances are looked for and found, while differences of as great importance in the investigation are counted as mere variations from the type.

It is in such Museums as this at Cambridge that the facts are now being gathered, and we may hope in time to be able to determine aright the complicated history of the ancient people of America.

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