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THE BASIS AND OBJECT OF ARCHEOLOGICAL RESEARCH IN MEXICO AND ADJOINING COUNTRIES[1]

BY the mutual agreement between the government of Mexico and other governments and scientific societies of Europe and America, it has been decided to establish an International School of American Archeology and Ethnology in the City of Mexico; and as the honor of being the first director of the school has fallen to my share, I beg leave to place before this illustrious assembly the reasons which determined the patrons and protectors of the school to found it, and to dwell a little more fully on the ends that we hope to achieve in this new institution.

We call our school the "International School of American Archeology and Ethnology;" that is to say, we wish to treat two sciences, the importance of which is more and more clearly recognized in our day, and which are in reality sisters—for what we call archeology is but a branch of ethnology, from which it differs rather in method than in aim. Archeology has reached its highest development and

[1] Inaugural address of the director at the opening of the International School of American Archeology and Ethnology in Mexico City on January 20. Porfirio Diaz, president of the Mexican republic, opened the school in the presence of the ministers of state and public instruction of the republic, of the ambassadors of countries that participate in the establishment of the school, and of many prominent citizens. After the inaugural address by Professor Seler and an address by Señor Ezequiel A. Chávez, subsecretary of public instruction, who dwelt on the importance of international cooperation in the establishment of the school, the president declared the school opened.

achieved its greatest triumphs in classical archeology and in the prehistoric archeology of Europe. For centuries the political and civil history of the Romans, Greeks and Oriental nations have been taught in the schools of the Old World. By the efforts of thousands of learned and industrious investigators, whatever knowledge could be obtained from descriptions and reports of historians, from the study of monuments that have survived the destruction of the old world, has been recorded and secured for the benefit of scientists and of the general public. We may say without exaggeration that an exact knowledge of the political and social life and of the characteristics of the individual life of the people of antiquity; a true concept of the extent of the influences arising therefrom, of the influences these civilizations received from the neighboring countries, and of the source from which they sprang,—was not attained until ancient history applied archeological methods, until by the use of the spade were unearthed the homes, graves, utensils, arms, ornaments, costumes, the remains of human bodies, and the worm-eaten literature of that ancient people.

Thus it was proved that field work was most necessary for the progress of archeology; underground lie the documents, truthful witnesses of the ancient civilizations about which we read; underground lie also the remains that are witnesses of civilizations, and the forms of primitive development of which no historian has written a single word. It is only necessary to bring them to light. However, for this kind of work, the energies of a single man are insufficient, no matter how skillful, diligent or learned he may be. Nor are the means sufficient which a scientist standing alone has at his disposal.

For these reasons in different countries of the European continent, the governments have taken upon themselves to establish and support institutions, to appoint directors and assistants who are charged with the task of exploring the centers of ancient civilizations, in the classic soil of Italy, Greece, Egypt, Babylonia, Assyria and other parts of the world. Associations of private citizens interested in this subject compete with the governments. In this way were organized the French, German, English and Austrian schools and those of the United States of America and other nations; in Rome, Athens, Smyrna, Cairo, Crete, Babylon, etc.

In establishing the institutions, the governments, scientists and scientific societies had a double purpose. The first and foremost was of course to learn as accurately and as completely as possible the characteristics of that great civilization whose heirs are we who live in Europe now, and which has spread to this continent and to other parts of the world. To accomplish this purpose it was important to preserve the relics that were found, to collect small objects and to note the places where they were discovered and the manner in which they had been deposited, and to keep them in museums.

The other object which the governments and scientific associations wished to attain was more particularly of an educational character. This purpose was partly accomplished by the museums, which were enriched by the finds made by archeological research. The peculiar traits as well as the artistic character of the remains that had been collected were admirably adapted to impress the imagination and to teach the young. There are, however, a great many things which can not be kept in museums, and there are many others which can only be seen and studied in the museums of the countries in which they have been found.

There are—most important of all—the people, the descendants of the ancient civilized nations; their countries, their skies, their climate, their whole environment, their way of living and the whole combination of imponderable agencies, the knowledge of which enables the student to understand the thousand peculiarities of the life and fate of the people. All of these and the particular methods of investigation were what was desired to teach the young in the schools of archeology that have been established with so much liberality in the classic countries of the Old World.

Work of this kind has been in operation for generations and with marked success. Whole cities arose anew from the accumulation of débris of thousands of years that had covered them; temples with rich ornamentation were restored, the secrets of the Egyptian pyramids, of the temples of Babylonia and Assyria, were brought to our view, together with countless objects, many of which were of inestimable value. These were preserved to delight the eye and satisfy the mind of mankind, and from them many students have learned to see, understand and work.

On the American continent, in the United States and in the Dominion of Canada, great interest was manifested in the ethnology of the Indian races and in its antiquities ever since the middle of the past century. Scientific associations and private parties rivalled in collecting data and documents; and the governments, aided by liberal means, undertook the direction of the investigation. Recently archeological investigations have also been instituted on a larger scale in South America in the Argentine Republic, particularly in the Andean region of that republic. Something has also been done in Brazil, Bolivia, Peru and Ecuador, by the cooperation of private parties, institutions of the United States and the governments of South America. Some foreigners have also worked in the republics of Central America, as well as in Yucatan and Chiapas: the Englishman Alfred P. Maudslay; the Frenchman Désiré Charney; the investigators of the Peabody Museum of Cambridge, Mass.; the Germans Berendt and Teoberto Maler; the Swedes Bovallius and Hartman. Great additions to our knowledge of the ancient peoples of those regions were derived from their work. In Mexico the explorations authorized by the government in Xochicalco, Cempoallan, Monte Alban and Teotihuacan have contributed much to enlarge and deepen our knowledge. Magnificent monuments which were little known, and which were covered by débris or hidden by tropical vegetation, were unveiled. This work awakened more and more interest among the educated classes of other countries, and especially among our neighbors to the north. Thus arose the idea of cooperation, of the union of efforts, of the necessity of establishing a center to direct the work, at which the young student can learn, who, full of enthusiasm for those studies, might wish to come here to learn what books and the objects accumulated in museums could not teach him. This was the object and aim in founding a school of the same kind as existed in Rome, and with the same aims, but international in character. It is not necessary to enter into details to show the particular opportunities of such a school in this country, but we shall be grateful to those who initiated and fathered the idea, for the zeal and perseverance with which they worked to accomplish their end. We must be grateful particularly to the government of this republic, that owns this soil, and to the ministry of public instruction, whose solicitude for the study and preservation of all the archeological treasures of this country is

well known, and which with great kindness supported the project and lent it its efficient aid.

Permit me now to set forth in a few words the tasks that this new institution will have to take up, and the way in which I think the work should proceed.

The historian places the highest value on the testimony he can gather from living witnesses. The descendants of the ancient peoples of this country, in so far as they still speak their old languages and observe their old customs, are in a way living witnesses, whose testimony is of value for the knowledge of ancient history, ancient political and social life. The Indian of this country holds so tenaciously to his old customs, he is so devoted to the soil of his birth and that of his ancestors, that only by main force can he be taken from it.

When we remember that since the time of the Conquest all hostilities and wars between the tribes have ceased, we may take it for granted that on the whole, and with few exceptions, the geographical distribution of tribes that exists to-day is the same as at the time of the Conquest; that is to say, that if a certain native language is now spoken in a certain place, we may assume until the contrary is proven that the same language was spoken there at the time of the Conquest. For this reason it is of the greatest importance, not only for the ethnologist, but also for the historian and archeologist, to have an exact knowledge of the geographical distribution of the Indian languages spoken to-day; and for this reason I consider the preparation of a map that will give all the details of this distribution, as one of the labors that should occupy the attention of the International School of Archæology and Ethnology established to-day.

The people who speak the same language do not necessarily form a homogeneous group; there are differences among them which correspond to the diversity of place and condition in which they live or lived, and to their history. Such differences express themselves even in language, and for this reason the study of the dialects is also essential for historical investigation, and will form one of the tasks of the International School. We are grateful to my distinguished colleague, Dr. Boas, who offers his thorough knowledge and experience in this laborious enterprise.

Another help in our investigation that may be of great value are the Indian people of to-day, in so far as they still retain the customs of their forefathers of the time of the Conquest, and in so far as they still retain the traditions, beliefs and tales, adulterated or not, which belonged to the time of paganism. The folk-lore of the Indian tribes of this country will be another and very important part of the labors of our school.

Lastly, we should not forget to study the industries and art of the Indian people, however much they may have been influenced, mixed and changed by the artistic style and the industries that the Spaniards brought with them; there remain in many places the survivals of ancient industry, designs and forms that remind us of ancient styles, that will be of value for purposes of comparison, and that may complete the history of ancient design and help us in its interpretation.

Archeology proper—that is to say, the ethnology of the races and peoples that no longer exist—has the same aims as ethnology, but its methods are much more limited. The archeologist can not collect at will from living people the elements of the language that was spoken, the traditions, the tales, the beliefs and all the evidence of mental development. He must be satisfied with what writers of earlier times—

investigators, historians or general writers —considered worth while to note down. Nor can the archeologist investigate the entire cultural work of a race or people. He can only depend upon the little that good fortune has saved from general destruction, caused by the violence of man, by his negligence and the destructive agencies of time, climate and vegetation. The more is it important for the scientists to collect all the evidence, important as well as that of seeming insignificance, to keep account of the notes that refer to the evidence, to its origin, etc., and to utilize thoroughly the written documents, the descriptions of historians and of the contemporaries of those times, in order to obtain from these documents all possible help for the interpretation of the history of the people.

Useful documents are not lacking in this country—that is, in the region with which historians have particularly occupied themselves—in this valley, in the environment of the capital and among the Tlatepotzcas (people that live beyond the mountains), in Cholula, Tlaxcala and its dependencies, the home of the nation or nations that were leaders in this country. Beyond the limits of the central region, in the provinces, the reports and documents are very scarce. There is no Sahagun for Michoacan and the northeast, nor for the Otomis, near neighbors of the Mexicans of the central region; nor for the gulf coast, nor for the great and rich provinces of the Zapotecas and Mixtecas; and the same is true of the region of the isthmus and the different parts of the people of the Maya family. Regarding all these large provinces we have not more than scattered notes, and few incoherent accounts. Here archeology is the only means that can furnish the data, or any data necessary for the reconstruction of the history of these ancient people and the characteristics of their civilizations.

The International School, in its archeological department, will, in the first place, study the monuments that are in existence and that are accessible, making comparisons and trying to interpret them by means of the old trustworthy accounts, and by means of what may be gleaned from the paintings, the contemporaries of pagan times, or of those made not long after the Conquest.

The Maya monuments are a problem in themselves. As this people had developed the art of writing to a higher degree than any other people on this continent, having originated very nearly a true hieroglyphic writing, and as at the same time they used these characters and signs frequently in their books as well as in their architecture, the Maya monuments should teach us more than those that are found in other parts. Unfortunately, in that region an authoritative interpretation is lacking entirely. Some of the characters have been deciphered, much more remains to be deciphered. The International School will also apply its efforts to this important but difficult branch of the investigation.

The principal work with which the International School will occupy itself will be the search for new material, choosing appropriate places for which the authorities in whose charge the preservation of the monuments of the country is placed, will give the needed authority; discovering, measuring and studying what is found, looking for and bringing together detached pieces, taking photographs and drawings of entire monuments, of special details, opening burials and securing the contents for the museum of the nation.

The school will make efforts to fill in the fragmentary picture of our knowledge in order to give us a better idea of the differ-

ent civilizations that existed in this country—an idea that unfortunately the writers of earlier times did not give us.

At the same time, we must not forget to study the cultural strata to see if there be in some place some means of arriving at a classification or chronological order in which the civilizations followed one another, a history that we have not been able to establish up to this day. All these propositions will require the cooperation of the young who will learn and will in turn become our teachers; who will continue our work, disregarding and boldly setting aside the doubts and hesitancies of the old, and who will not fear to open new paths and with youthful vigor bring to a happy end what we have only been able to begin.

EDUARD SELER

THE PLACE OF RESEARCH IN UNDERGRADUATE SCHOOLS[1]

THE aim of this academy is the encouragement of research along scientific lines by establishing and maintaining intercourse among those engaged therein, thus stimulating them by a consciousness of companionship in productive intellectual activity. In a small society, embracing in its scope all the sciences, one does not expect in these days of specialization to find others engaged in just the same field of investigation as himself; it is through inspiration rather than information that the investigator profits by these meetings.

It is now hardly necessary to emphasize, even to the non-scientific public, the importance of scientific research; to it mankind owes in a large measure not only his material prosperity, comforts and conveniences, which is sufficiently obvious, but, what is even more important, his intellectual freedom. The changes that have taken place within the last century in our physical environment, with the innumerable applications of science to useful purposes, are no more profound than our intellectual advance and the growing pervasiveness of the scientific spirit in all lines of thought and endeavor for human betterment, physical, social and moral. Our increasingly extensive and effective philanthropies, our giant strides in sanitary administration, and the tottering barriers between the sects of Christendom, are very tangible evidences of the spirit that is not satisfied with precedent or authority, but craves certainty as to the facts, and reasonable explanations for them, as well as the application of all knowledge to the uses of man.

The membership of this academy happily includes scientific workers in many fields. Some apply the results of research to the needs of the state in developing its resources and protecting its citizens against the injuries inflicted by ignorance and fraud; others make science the servant of industry and commerce; others, again, are active in applying it to the preserving and restoring of the health of our bodies. A large part of our membership, however, is made up of those whose chief occupation is teaching.

While it has not always been the case, it is probably true at present that the most valuable contributions to human knowledge are made by those engaged in this profession of teaching. This is not surprising, for the nature of his calling demands that the teacher to be effective must ever continue to be a student, and the thorough study of any subject reveals the limits of our knowledge in that field and tempts the man of active intellect to the task of extending those boundaries; there is surely no keener pleasure than the learning by one's own search some truth, however inconspicuous, not previously known.

[1] Address of the president of the Indiana Academy of Science, November 25, 1910.