

*THE FIELD SESSION OF THE SCHOOL OF
AMERICAN ARCHEOLOGY*¹

THE School of American Archeology was created in 1907 by the Council of the Archeological Institute of America, with the object of organizing and giving direction to the study in America of this and cognate branches, constituting the science of man in a broader sense—anthropology. It is controlled by a managing committee appointed by the institute, consisting of thirty-three prominent citizens and scientists of Canada, the United States and Mexico; and its field of activity embraces those countries, with the addition of Central America. After canvass of various localities the school was located at Santa Fe, New Mexico, because it is in the heart of a vast region of prehistoric cultures upwards of 1,000 miles long by 800 miles wide, extending from Utah to southern Chihuahua. It thus dominates a typical field for the investigation of the character and probable origin of the native races of this continent. The advantage to the school of having such an environment of original material for study is obvious.

As a further addition to the facilities of the school, the territory of New Mexico established at Santa Fe the Museum of New Mexico, to be administered by the director of the school, and for that purpose donated the historic palace of the governors, one of the oldest public buildings in the United States, with an annual fund for its maintenance. This has now been partially installed, and was formally opened to the public August 20; it will furnish collections, laboratories, lecture and research rooms, for the current work of the school.

The general plan of the school contemplates that a portion of each year's work shall be done in the field, in direct contact with the things to be studied. The first fully organized session under this plan was held during the past summer, in the region tributary to Santa Fe, under the personal direction of Dr. Edgar L. Hewett, Director of American

Archeology, and of the school. Four months were devoted to the general work, distributed as follows: One month to field work in the Ojo Caliente Valley; two months to school and field work at the Rito de los Frijoles; one month to field work in the Jemez Valley. The United States Bureau of Ethnology collaborates with the school during four months of field work and two months for preparation of reports, under the joint authority of the chief of the bureau and the director of the school. Mr. F. W. Hodge, chief of the bureau under the title of ethnologist in charge, took part in the work personally during the latter part of the season. The bureau, however, has nothing to do with the administration or maintenance of the school—the collaboration above mentioned being arranged for mutual benefit, and to avoid duplication of work in the field.

The school is now permanently established. Sessions will be held annually at different points within the general region, to be designated from time to time according to the localities under investigation. As the session recently held fairly illustrates the practical working of the school as organized, some account of it will be of interest.

The members of the *Staff of Research and Instruction* were: Dr. Edgar L. Hewett, director (University of Geneva); Mr. John P. Harrington, ethnology and linguistics (Stanford, Berlin, Leipzig); Mr. Sylvanus G. Morley, archeology (Harvard).

Special Assistants: Mr. Junius Henderson, geology, zoology (University of Colorado); Mr. W. W. Robbins, botany (University of Colorado).

Special lectures were given by Mr. Hodge, chief of the Bureau of Ethnology, Professor McCurdy, of Yale, and Mr. K. M. Chapman, of the school.

The actual working force consisted of the director, Mr. Hodge and twelve assistants, including the regular members of the school staff, and a number of teachers and students from the universities of Utah, Colorado, Cornell, Denver and Oxford, England. A well-equipped library, with study and lecture tent

¹ Held near Santa Fe, N. M., June–September, 1910.

and awnings, was provided. Lectures and field excursions, under direction of some of the staff, were held at stated hours; these were regularly attended by many visitors, including tourists and travelers from various parts of the country, and prominent officials and citizens of Santa Fe. Many of these came out of curiosity, but availed themselves of the facilities afforded by the lectures and excursions, which were free to all who were interested. The locality is about thirty-five miles by road from Santa Fe, reached by carriage in a day's drive.

The line of research followed embraced the usual archeological work, having for its aim the study of the native races of America, limited at present to those of fixed habitations. For this there are two sources of knowledge: (1) The original, from the prehistoric ruins, representing the isolated Indian culture unmodified by contact with other races; and (2) secondary, from the existing Indians of contiguous or related territory, who must be studied for the light they throw on the ancient cultures. Under the plan developed in the school, these problems are attacked with aids derived from several branches of science, some of which at first thought may not be considered germane to the subject; but a suggestion of the reasons for employing them will show their relevancy. Under the general head of ethnology we may have:

1. *Linguistics*.—The languages of the living Indians of the region furnish trails leading to knowledge of many things we need to know concerning the ancient peoples—their knowledge of places, geographical limits, the elements, constellations; their ideas on myths, legends, religion; their views of life and the hereafter; their social organization and material culture; the whole range of what they make and do, and why.

2. *The Natural History of the Region*.—(a) *Geology*.—The settlement of the whole great southwest region of 1,000 by 800 miles was directly controlled by the geological structure of the country. It determined the location of the habitations; the building material and character of the houses, from the caves worn

by the winds out of soft tufaceous deposits, enlarged by scratching with stone tools, to additions and enlargements with shaped blocks upon the talus, leading later to the detached houses as population increased, and finally to the Pueblo houses of to-day. These are ethno-geological facts closely related to the questions in hand.

(b) *Vegetation*.—Plant life powerfully influenced the culture of the Indian. He made use of a large number of them, for their food value, their medicinal properties real and supposed, and for superstitious reasons. He was in this region necessarily an agriculturist, depending upon vegetation for his subsistence far more than the plains Indians, who had animal food in abundance. To understand this properly, exact knowledge of the plant life of the region is necessary, together with the probable effect upon it of great cycles of climatic change. Scientific knowledge of the present day must be connected with what the Indians knew of the plants. To know exactly what plant was used by them, for a certain purpose, is an ethno-botanical fact that is pertinent.

(c) *Animal Life*.—An accurate knowledge of this, both past and present, is important for its bearing upon the food-supply, and the beliefs of the Indians concerning the animals; these were endowed by them with a great variety of attributes, some of them human, belief in which greatly affected the life and superstitions of the people. Therefore the animal life of the region must be studied scientifically in order to know it accurately ourselves, and we study it ethnologically to learn the beliefs of the Indians connected with it; we correlate the two in search of ethno-zoological data.

Coordinated with these, in such a way as to form definite and manageable units, the accumulation of which is expected to furnish a solid basis for future generalizations, there is provided—

3. *An Archeological Survey of a Definite Region*.—This embraces the study of the distribution of the ruins, relating to the social organization and life of the people; the plan

and construction of the buildings, showing their home life and religious practises; the domestic utensils and tools, indicating their industrial development; decoration, showing the origin and progress of their ideas of design and ornament, bearing upon the evolution of beliefs and habits of thought.

All these lines of research lead up to the most important phase of the inquiry, viz.,

4: *Psychology*.—For it is the human mind that we are studying, and the ultimate aim of these correlated investigations is to find out how the mind of man has been influenced by his environment; how his beliefs and life have been created, modified, continued, or destroyed by his physical surroundings.

The methods adopted for carrying out the foregoing scheme, and which were successfully practised during the recent summer session, may be summarized as follows:

1. Excavations of the designated ruins, systematically made under proper supervision; insuring the adequate scientific record of all facts disclosed, care of the objects discovered, and preservation of the structures for the use of future students.

2. Special investigations upon the collateral subjects above indicated, made by persons thoroughly qualified, within the definite region under consideration. These embraced the survey and mapping of the area; and the geology, botany and zoology, studied in direct connection with the linguistics of the existing Indians derived largely from the same stock as the ancient dwellers. This was accomplished by taking a number of intelligent Indians into the field, and learning from them at first hand the original names of all the objects studied, their uses, and the beliefs and traditions concerning them.

3. Daily class excursions under instruction, bringing the students from time to time into direct contact with the researches mentioned in the last two paragraphs, thus affording opportunity for study where the things are, and for discussion in their presence.

4. Facilities for direct comparison of pertinent literature, by means of a library on the spot.

5. Intelligent presentation of the results of the work, and of related questions, by means of daily lectures, with opportunity for inquiry and discussion following them.

The foregoing program of field study will be followed by work at the museum during the year, where the material obtained in the field will be digested, and the results prepared for publication. This will include, among the special features, phonographic and kymographic studies of languages now rapidly disappearing, thus securing mechanically accurate records for future use.

FRANK SPRINGER

SCIENTIFIC NOTES AND NEWS

ANNOUNCEMENT is made that the Nobel Prize in medicine for 1910 has been awarded to Dr. Albrecht Kossel, professor of physiology at Heidelberg.

At its last meeting the Rumford Committee of the American Academy made the following grants: to Mr. P. W. Bridgman, of the Jefferson Physical Laboratory, Harvard University, \$400 additional, in aid of his research on the thermal and optical properties of bodies under pressure; to Professor Charles L. Norton, of the Massachusetts Institute of Technology, \$400, in aid of his research on thermal insulation.

THE Royal Scottish Geographical Society will award its medal to Professor James Geikie, F.R.S., for his contributions to geographical research and his services to the society; and the Livingstone gold medal to Sir John Murray, K.C.B., F.R.S., in recognition of his oceanographical work.

At Cambridge University the Gedge prize has been awarded to G. R. Mines, of Sidney Sussex College, for his essay entitled "Researches on the Physiological Action of Inorganic Salts chiefly in Relation to the Cardiac and Skeletal Muscles of the Frog."

M. LACROIX, professor of mineralogy at Paris, has been elected a corresponding member of the Vienna Academy of Sciences.

MR. JOHN RANDALL, of Maidley, England, who has made various contributions to geology