THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

SECTION H, ANTHROPOLOGY.

At the recent meeting of the American Association for the Advancement of Science, held in Washington during convocation week, Section H united with the recently founded American Anthropological Association and with the American Folklore Society in a joint program, the papers presented being classified as far as possible by subjects, and arranged for different days. The meetings were held in the buildings of the Columbian University Section H held its special Law School. meeting on Tuesday, December 30; the American Anthropological Association on Wednesday, December 31; the American Folk-lore Society on Thursday, January 1, and on Friday, January 2, a joint session of all three societies was held. following papers were offered for presentation to the Section (see series of titles and abstracts attached):

E. W. TOOKER: 'Algonquin Names of Mountains and Hills.' (By title.)

A. L. Kroeber: 'Tribal and Social Organization of the Indians of California.' (By title.)

W. H. HOLMES: 'Incrusted Crania from Caves in Calaveras County, Cal.' (Presentation.)

FRANZ BOAS: 'Conventionalism in American Art.'

FRANK RUSSELL: 'Some Practical Problems for the Consideration of American Anthropologists.' Military Insignia of the Omaha: ALICE C. FLETCHER.

Among the Omaha there were two classes of warfare, aggressive and defensive. The literal translation of the word meaning aggressive war is, in the direction of men; that of defensive war, in the direction of women or the tent. War parties ranged from eight or ten to one hundred warriors. A man seldom went to war alone, except under the stress of grief. War parties were of two classes, those organized for securing spoils and those having for their object the avenging of

injuries. The latter held the higher rank. All parties were organized. The leader (the commanding officer), who must be ready to sacrifice his life for his command should circumstances demand it, and four, grades of servers appointed by the leader; namely, the hunters, who must provide game; the moccasin carriers; the kettle carriers; the fire makers and water car-No regalia was worn in actual battle. There were six grades of war honors, each of which had its peculiar insignia. These honors could not be claimed by a man until they had been awarded through certain rites, which could only take place within the sacred tent of war. This tent and its ceremonies were in charge of the gens which camped south of the eastern opening of the tribal circle. These insignia represented a warrior's act which had been recognized by the supernatural powers and awarded in the sacred tent. Other regalia represented social relations and the interdependence of men. eagle feather war bonnet belongs to this class. A war bonnet was not made by its wearer, but was manufactured by the warriors of the tribe with ceremony and song. A war honor had to be counted upon each of the eagle feathers, so the completed bonnet represented the warriors of the tribe who had consented to bestow this mark of distinction upon one of their fellow tribesmen.

The Extinction of the Pecos Indians: E. L. Hewitt.

The paper gave an account of the writer's attempt to find all the surviving members of the Pecos tribe. None were found remaining of the portion that settled at Santa Domingo and Zia. Of the principal remnant which settled at Jemez, only two are now living. Other descendants of Pecos Indians were found, but none of pure blood. One of the two survivors has

died since last July, and it is only through the last survivor, Augustine Pecos, that first hand information concerning the language, customs, folklore and religion of the Pecos Indians can be had. Some information gained from this old man was given.

Sheet Copper from the Mounds is not Necessarily of European Origin: Clar-ENCE B. MOORE.

It was shown in the paper that, while some of the sheet copper from the mounds is of European origin, much sheet copper is purely aboriginal, as is evident by the lack of association of any objects of European make, and the fact that analyses show that the copper is in many instances hammered from pure native copper, and is far purer than any copper produced in Europe during the fifteenth, sixteenth, seventeenth or eighteenth century from the arsenical sulphide ores which have to be made use of in Europe to obtain copper, inasmuch as native copper is not present in quantities sufficient for commercial use.

The Hopewell Copper and Other Objects, are they Pre-Columbian? Warren K. Moorehead.

A summary of the evidence in favor of the pre-Columbian origin of the objects taken from the Hopewell Group, based on personal exploration of the group in question.

The Fossil Human Remains Found Near Lansing, Kansas: W. H. Holmes.

Reports of the finding of human remains deeply imbedded in loess or loess-like formations near Lansing, Kansas, came to the writer's attention early in the year 1902. In September he visited the site, accompanied by Professor T. C. Chamberlin and other geologists. Excavations were undertaken for the purpose of giving geologists an opportunity of examining the formations more critically, a month being spent

in this work. The interpretation reached by those geologists who first visited the site was that the deposits enclosing the remains were of Glacial age, probably extending back to the middle of the Iowan Epoch. Later interpretations, however, favor the view that the deposits are of post-Glacial age, that they are a remnant of a fan-like delta built in and about the mouth of the little valley that opens out upon the flood-plain of the Missouri River The osteological characters at this point. and state of preservation of the human remains seem to favor the latter interpretation.

Economic Anthropology: Lindley M. Keasbey.

In the domain of physical anthropology good results have been reached. By applying the biological principles of variability and variation anthropologists have succeeded in elaborating a fairly full account of the origin, dispersion and differentiation of the human species. the domain of cultural anthropology confusion still prevails. This is due to the fact that no principle of continuity has been applied to the cultural activities of primitive people. The economic activities of man are necessarily antecedent to his cultural activities-true, man does not live by bread alone, but unless man labors for his daily bread he is not able to live. Therefore, anthropologists should begin their enquiries by studying the economic activities of primitive people. By applying the economic principles of utility and utilization, the anthropologist should be able to establish the first stages of industrial development and determine the essential characteristics of primitive culture.

The Excavations of the Gartner Mounds: W. C. Mills.

The mound which was located near several other famous mounds of the Ohio area,

was found to contain many burials, graves being scattered throughout the whole About one third were placed bemound. low the base of the mound, at varying depths up to five feet. The base of one of the mounds was of tamped clay covering an old village site. Ashes were placed in a layer over this clay, and in this part of the mound were but few burials, and these some three and a half feet above the clay base. With many of the burials were many artifacts, and several pieces of pottery were recovered intact. With some burials, instead of pottery, the materials for making pottery were buried.

Anthropometry; its Relation to Criminology: E. Lindsey.

The study of the outward physical characteristics of men is a branch of anthropology to which quantitative methods are applicable. The relations exhibited by these methods are the mathematical ones connecting the observations, and not the real relations of the phenomena themselves. The application of these methods in the study of criminals, united with the view of the criminal mainly as a moral offender developed by the philanthropists, gave rise to the theories of the so-called Italian school of criminology. This is susceptible of much criticism. To deduce any theory, observations on the convict class must be compared with observations on all other classes of society. Convicts must be compared with non-convicts of similar environment. Anthropometry must provide these data. While there is a correlation between psychical activity and physical structure, the physical is no measure of the psychical function, which can only be compared qualitatively. Criminology, therefore, must embrace both qualitative and quantitative studies. Criminology has no direct relation to criminal law, but should be pursued as a strictly scientific investigation,

using both quantitative and qualitative methods.

The Gramophone Method in Collecting Dialects: E. W. Scripture.

The phonograph and the gramophone were compared in their usefulness in the collection of dialects, and the methods of tracing curves from the records obtained by the latter instrument demonstrated. The method of analysis of these curves was described, and plans outlined for a comprehensive collection of American dialects, constituting a phonetic and linguistic survey of the entire country, and embracing aboriginal as well as other peoples.

The Cultural Differentiation of the Maidu:
ROLAND B. DIXON.

The paper called attention to the rather interesting case of the differentiation of the small Maidu stock into three more or less distinct groups, each of which was, to a considerable extent, isolated from the others. It was suggested that we might see in this differentiation in culture as well as language in this single stock, evidence of the forces which have produced the great diversity which has long been recognized to exist in California as a whole.

A Study of Spindle Whorls from Mexico to Colombia: H. NEWELL WARDLE.

This study was based on the collections of spindle whorls in the U.S. National Museum, the Academy of Natural Sciences of Philadelphia, the Free Museum of Science and Art of the University of Pennsylvania, and the American Museum of Natural History in New York. The distribution and significance of ornamental motifs were briefly considered, but the groups outlined were on the basis of technique, form and material. Eight groups were recognized for Mexico, and after reference to the spindle whorls of Chiriqui, attention was called to three strongly characterized types from Colombia, hitherto undescribed.

Comparative Study of Mortuary Pottery from Pajarito Park and Tewa: E. L. Hewett.

The paper, illustrated by many drawings, was a comparison of the designs and forms of pottery taken from the Cliff Ruins of Pajarito Park, with pottery made by the Tewa Indians of the Rio Grande Valley.

The Introduction of the Banana into Prehistoric America: О. F. Cook.

Evidence has been found which appears to establish the existence of wide distribution of the banana in pre-Spanish America. It was not, however, a native plant, and was probably introduced from the tropical Pacific islands with which, it is claimed, there are excellent indications of prehistoric communication.

Progress in Anthropology at Peabody Museum of Yale University: George Grant MacCurdy.

The anthropological collection at Yale was begun in 1866, and might have been one of the most important of its kind in America had not Professor Marsh, who began it, turned his attention almost wholly to paleontology. His interest in anthropology continued to manifest itself in collecting only, since he had time neither to study the materials amassed nor to make a systematic exhibit of them.

The work of installation along definite lines was not begun until 1899, soon after Professor Marsh's death. During the three years ending June 30, 1902, a number of important exhibits were prepared, among them being a series representing the Paleolithic period of Europe; the Swiss Lake Dwelling collection; the Scandinavian Neolithic series; and the Egyptian, Greenland and Alaskan collections.

Since last June many valuable accessions have been received, including a beaded ceremonial shirt of buckskin from the Misses Terry, of New Haven, presented their brother, General Alfred H. Terry, by a Sioux chief; the annual gift of Egyptian antiquities from the Egypt Exploration Fund; two Chilcat blankets and Indian and Japanese baskets from Mrs. Kate Foote Coe and her sister, Mrs. E. H. Jenkins, of New Haven; and a collection of unusual scientific value consisting of two hundred Indian baskets, and one hundred various ethnological specimens, chiefly from the Pacific coast of North America, loaned by Mr. and Mrs. William H. Moseley, of New Haven. Moseley collection has just been installed. The curator, Mr. MacCurdy, has done some field work in three different localities of the state, which has resulted in important accessions to the museum, one of these being several hundred antiquities from a rock shelter near Pleasant Valley, the gift of Walter E. Manchester.

Origin of Surnames: Anita Newcomb Mc-Gee.

Personal names may be grouped as class names and individual names, corresponding in present usage to forenames and surnames. Brief descriptions of forms of names among primitive and early peoples were given, with statement of the causes which led to the general use of the class designation as a surname. Greece. Rome. England, Scotland and Ireland were especially considered, and it was suggested that surnames were probably the same as, or derived from, the old clan names, brought into constant use by the demands of civilization. Anthropologists were asked to record the forms of personal names used by the primitive peoples, because they are an expression of the grade of culture which has been attained.

Recent Investigations among the Pawnee: Geo. A. Dorsey.

In speaking of his recent investigations among the Pawnee, Dr. Dorsey confined his remarks to the description of the offering to the various gods of the heart and tongue of the buffalo, this being one of the rites of an extensive ceremony in connection with a secret bundle among the Skidi band of the Pawnee, which is dedicated to the evening star, the mother of the Pawnee tribe.

One of the interesting features brought out in this presentation was that the fireplace made in the tipi during the ceremony is rectangular in shape, and not round, this being supposed to be the shape of that garden in the west presided over by the evening star, and in which the heat of the sun is periodically renewed.

> ROLAND B. DIXON, Secretary.

HARVARD UNIVERSITY,

THE WASHINGTON MEETING OF THE GEO-LOGICAL SOCIETY OF AMERICA, DE-CEMBER 30, 31, 1902, JANUARY 1 AND 2, 1903.

The society was called to order Tuesday, December 30, in a room in the building of the U.S. Geological Survey. attendance was very large, from 75 to 100 fellows being present. An address of welcome was delivered by Director C. D. Walcott and was acknowledged by President N. H. Winchell. After routine business, memorials of Alpheus Hyatt (by W. O. Crosby), J. E. Mills (by J. C. Branner) and J. W. Powell (by W J The presentation of McGee) were read. papers was then begun, and the following were read during the meeting. as the society held joint sessions with Section E of the American Association for the Advancement of Science, it is impossible to give the papers in the exact order of presentation. Section E had a full program, as did also the Geological Society, and related titles were presented in succession, without regard to the body to which they had been primarily offered. In this report the printed program of the Geological Society is followed. The companion report by Dr. E. O. Hovey covered the papers primarily offered to Section E. Where an author was absent his paper is only mentioned at the close of this report, among those read by title.

The First Eparchean Formation: H. M. Ami, Ottawa, Can.

This paper was an extension of one presented at the last winter meeting and entitled 'The Ordovician Succession in Eastern Ontario.' It emphasized the nature of the first formation which overlies the Archean crystallines in different portions of North America. Dr. Ami showed that the first Paleozoic sediments in the southern Appalachians are fragmental and of lower Cambrian age, while as we come north the strata resting on the ancient crystallines are successively later and later in age, until in Canada we find them at the top of the Ordovician. He, therefore, emphasized the probability that the earliest fossils were only to be expected in the south.

In discussion C. R. Van Hise urged the importance of care and exactness in the use of the term 'Eparchean Interval.' If used in the sense first proposed by Lawson on Lake Superior it would be a pre-Cambrian term, whereas in the paper of Dr. Ami it might as a time expression come anywhere up to the top of the Ordovician. Transgression and overlap need also to be considered. Bailey Willis remarked the distinct faunas which occurred in the same kind of rock, and emphasized the principle that lithology could not stand for time, nor has it faunal significance.