

THE WINNIPEG MEETING OF THE
BRITISH ASSOCIATION

SECTION H—ANTHROPOLOGY

FOR twenty-five years it has been the policy of the British Association for the Advancement of Science not to confine its annual meetings to the British Isles. Pursuant to this truly imperial policy a meeting was held in Winnipeg, Manitoba, August 25 to September 1, 1909. This was the third meeting on Canadian soil, the first having been held at Montreal in 1884, and the second at Toronto in 1897. To the Winnipeg meeting the officers of the American Association for the Advancement of Science were invited as guests, while a general invitation was extended to all its members and fellows. These invitations were not only very highly appreciated, but also accepted by a considerable number of American men of science who are only too glad of an opportunity to attend a meeting of the British Association without being compelled to cross the Atlantic.

By a curious coincidence the anthropological interests of each association are represented by a Section H, which had held its first meeting in Montreal—that of the American Association in 1882 and that of the British Association in 1884. The sectional president at Winnipeg was Professor John L. Myres, of the University of Liverpool. The full text of his address on "The Influence of Anthropology on the Course of Political Science" has appeared in *Nature* of September 23. In it he emphasizes the double place held by anthropology in the general scheme of knowledge. On the one hand it may be considered as a department of zoology, or geography; on the other as embracing whole sciences such as "psychology, sociology, and the rational study of art and literature." From ancient Greece, the renaissance, and the periods of great discovery and colonization, numerous authors were cited "to show how intimately the growth of political philosophy has interlocked at every stage with that of anthropological science." The history of the subject for the last fifty years shows how European colonization and anthropological discoveries have united to establish a patriarchal theory of society as a rival of the patriarchal, and then to confront both with the phenomenon of totemism. Anthropology may yet furnish the facts about human societies that will make it possible for the student of political science to measure the forces which maintain or destroy states. The address closed with a strong plea

for an ethnological survey of Canada before it is too late.

The reports of various committees formed an important part of the program. The committee appointed to investigate the lake villages in the neighborhood of Glastonbury reported that owing to the amount of work required in compiling and arranging the details of the monograph on Glastonbury lake village, it was found inexpedient to resume excavations this summer on the new site at Meare. The expenses incurred in the preliminary excavations carried on at Meare last summer have already been paid by Mr. Bulleid, and, consequently, no part of the £5 grant made by the association has been expended. The committee have, therefore, to recommend that this grant be renewed, together with at least £30 in addition. With a sum of £35 assured, and the number of private contributions already announced, the committee hope to make considerable progress in excavating the Meare lake village during the summer of 1910. Judging from the discoveries already made and recorded (Tenth Report, Dublin Volume, p. 414), this new lacustrine site promises to be richer in archeological remains than even Glastonbury.

The committee appointed to ascertain the age of stone circles have obtained evidence bearing on the probable date of the monument at Avebury, which is ascribed to the neolithic period. Sectional and other plans of all the parts excavated have been prepared with great care and a large number of photographs were taken. The grant of the association, together with most of the money raised by subscriptions, having been expended, the committee ask for a new grant of £75, and for reappointment with leave to invite subscriptions commensurate with the costliness of the excavations due to the huge scale of the earthworks.

The committee appointed for the collection, preservation and systematic registration of photographs of anthropological interest, reported that, as no grant was made to it last year, and the balance in hand has all been expended, no additions to the collection have been made since the last meeting of the association, as it is useless to accept prints for the collection, if it is not possible to mount and store them. The committee, first appointed in 1899, has received nothing beyond the initial grant of £10, which has now all been expended. Over 1,000 photographs have been received and mounted, while in addition to this other collections, numbering some 3,000 subjects,

have been registered, catalogued and made available to students.

President Myres reported for the committees on excavations of Roman sites in Great Britain and on the preparation of a new edition of "Notes and Queries on Anthropology." The latter will appear within the coming year.

The committee on archeological and ethnographical researches in Crete presented the following *interim* report from Mr. C. H. Hawes, who was able to return to Crete in the spring of 1909. In view of the important results outlined in this report, and of the possibility of a longer stay in Crete than Mr. Hawes originally contemplated, the committee asks to be reappointed, with a further grant.

REPORT FROM MR. C. H. HAWES

A piece of good fortune was met with at the opening of this season's work. During October, 1908, four skulls, two portions of other crania, several pelvic and long bones, came to light in the course of deepening a well in the alluvial bank of an ancient river ten minutes east of Candia. The argillaceous deposit in which they lay had acted as a natural plaster of Paris, and we are now in possession of human osseous remains of not later than the Middle Minoan I. period, in the most extraordinary state of preservation. Complete measurements and observations have been made upon these, and I hope to publish them at an early date with a comparison of those discovered by Dr. Duckworth in 1903.

In attacking the problem of how to discover or uncover the ancient stratum among the modern people, I have addressed myself to the task of finding out and isolating, if possible, alien elements of historical times. Representatives of Turkish and old Venetian families have been approached, and genealogical, traditional and historical information garnered, with a view of testing them anthropometrically. For example, one village at which I am to stay this week claims to contain only descendants of Venetians who have strictly refused exogamous marriages. A small Armenian colony has existed in Candia since the Turkish occupation in 1669, and inasmuch as the Armenoid type of head is met with in the east end of the island, whether of historic or prehistoric date, this little band of settlers is being measured. Albanian influence has been suspected in Crete, and rightly so, since for various reasons the Turkish Janissaries in the island included large numbers of these Europeans, and considerable mixture resulted. In view also of the Dorian

occupation of Crete and the belief in certain quarters that Illyria largely furnished the Dorian hosts, it seemed important to get at the Albanian type. Records of these and other peoples to be met with in the island were in my possession, but I was anxious to attempt the method of race analysis by contours of the living head. During my short stay at Athens I was able, by the aid of Mr. Steele, of the Lake Copais Company, to pay a flying visit to an Albanian village in the mountains to the northeast of the lake. There, in the village of Martino, reputed to be the purest of five such, I measured forty individuals and obtained contours of their heads by means of an instrument which I had just completed.

The problem has been attacked from another direction. What modification of the cephalic index and the shape of the head has been effected by artificial deformation or formation of the head? I am indebted to Professor Macalister for calling my attention to the importance of this factor. It is a custom which is far more prevalent than is dreamed of, and thousands of people in this island, mostly of the male sex, are unaware of a custom which is universal except among the Mussulmans and the better educated minority of urban population. As to the reason and methods of such head shaping, I hope to enter into details in a separate paper. The first object was to gauge the effect on the cephalic index and the contours. At the outset it is necessary to distinguish between the results of intentional formation and involuntary deformation due to the lying on hard surfaces. For these purposes I am making comparisons between subjects who have and have not undergone head shaping, and between those who have and have not suffered from a pillowless infancy. Striking examples of the latter are to be found among the small colony of Epirote bakers, who, owing to the extreme poverty of their parents at home, the circumstances of which I shall enter into more fully elsewhere, possess the most extraordinary and incredible head-shapes it has been my lot to see. Similar observations are being made upon the Armenian settlement here. Observations on these two extreme forms of head will prove instructive in comparison with the results of similar, though modified, treatment of the Cretan native. Further, whole families of Cretans are under observation, and measurements and contours have been taken of them, including children who have and have not been bandaged in their infancy, from the age of fourteen days up.

In addition to these researches which are in

progress, I have been able to garner from a cave, where are carelessly consigned the bones of many a deceased Cretan of to-day after a short burial in the cemetery, some hundred bones from all parts of the skeleton, saving, unfortunately, the cranium; and thus a comparison is possible between skeleton and skeleton of ancient and modern times. Two collections of hair, representing a series of shades, have been made for me by Orthodox and Mussulman barbers in Candia.

Crete appears to me to be a more than ordinarily instructive and significant field of research, and I hope that in the short time at my disposal I may find answers to some of the many questions which open up at every turn.

The committee to conduct archeological and ethnological investigations in Sardinia report as follows: Dr. Duncan Mackenzie, honorary student of the British School at Rome, returned to Sardinia at the end of September, 1908, and stayed there till the middle of November. He was accompanied for part of the time by the director, Dr. Thomas Ashby, and by an architectural draughtsman, Mr. F. G. Newton, student of the school.

Their new observations have materially increased our knowledge of the two main groups of Sardinian megalithic monuments, the Nuraghi and the "Tombs of the Giants." The previous year's work made it clear that the former were fortified habitations. Dr. Mackenzie has now visited other examples and recorded variations of type and peculiarities of construction. The most remarkable is the Nuraghe of Voes in the Bitti district towards the north of Central Sardinia. Triangular in plan, it contains on the ground floor circular chambers with bee-hive roofs; the usual central chamber and one in each of the three angles. The entrance is on the south and leads into a small open court with a doorway at each side leading to the chamber at the base of the triangle, and another doorway straight in front by which the central chamber is entered. There was an upper story, now destroyed, reached by a stairway of the usual type. Exceptional features are two long curving corridors in the thickness of the wall on two sides of the triangle, intended probably as places of concealment. Above them were others of similar plan, but both series are so low that the roof of the upper one is level with that of the bee-hive chamber on the ground floor. This skilfully planned stronghold must have been built all at one time; other large Nuraghi were originally of simpler design, and have grown by the addition of bastions and towers.

A new type of Nuraghe was discovered at Nossia near the modern village of Paulilatino, in Central Sardinia. It is a massive quadrangular citadel of irregular rhomboidal plan with a round tower at each corner. These towers resemble the stone huts of the villages attached to some of the Nuraghi; they are entered from a central courtyard which here takes the place of the normal bee-hive chamber. It was partly filled with circular huts, so that this Nuraghe must be regarded as a fortified village rather than as the castle of a chieftain.

The dwellers in these Nuraghi buried their dead in family sepulchers popularly known as Tombs of the Giants. Several writers had suggested that these tombs with their elongated chamber and crescent-shaped front were derived from the more ancient dolmen type, but hitherto there was little evidence to support this conjecture, only one dolmen being known in Sardinia. Dr. Mackenzie has now made this derivation certain; he has studied ten important groups of dolmen tombs, most of them entirely unknown, which furnish a series of transitional types. In one case the chamber of an original dolmen tomb had at a later period been elongated so as to resemble that of a Giant's Tomb. In another example the large covering slab was supported by upright slabs at the sides and back; and behind it there are traces of an apse-like enclosing wall, such as is characteristic both of the Giants' Tombs and also of dolmens in certain localities where Giants' Tombs do not exist; for example, in northern Corsica and in Ireland. Dr. Mackenzie also discovered a new type of Giant's Tomb in which the mound was entirely faced with stone, upright slabs being used below and polygonal work above. Another feature, hitherto unique, is a hidden entrance into the chamber at one side, in addition to the usual small hole in the center of the front through which libations and offerings were probably introduced.

These results were described at a meeting of the British School at Rome in March, 1909 (see *Athenæum* of March 27). An illustrated report of them will appear in volume V. of the *Papers* or the school.

Dr. Mackenzie and Mr. Newton intend to go to Sardinia, in September, for six weeks in order to continue the exploration of the island. The importance of anthropometrical work in connection with the problems presented by the early civilization of Sardinia was pointed out in a previous report of this committee. Mr. W. L. H. Duck-

worth, a member of the committee, went to Rome last April and studied the collection of one hundred Sardinian crania in the Collegio Romano. He made about 1,200 measurements, and is preparing a report which will serve as a basis of comparison with any collection of ancient crania that may be obtained. In addition to these specimens, which had not been described previously, Mr. Duckworth has examined about thirty Sardinian crania in the museums of Rome and Paris. He has recently spent ten days in Corsica, where he obtained valuable illustrative material, and hopes to take part in Dr. Mackenzie's expedition to Sardinia in September next.

The committee ask to be reappointed, and apply for a grant.

Although the last report of the committee on anthropometric investigation in the British Isles was considered to be final as regards the method of anthropometric investigation, it was thought advisable to reappoint the committee to act as an organizing center to promote the establishment of anthropometric investigation among all classes of the population of the British Isles. In this direction important work has been done during the past year.

In October last, the secretary, at the request of Dr. Rawson, the principal of Battersea Polytechnic, instructed his medical officer in the method of carrying out measurements in accordance with the committee's scheme.

The importance of installing anthropometry in public schools was brought under the notice of the Headmasters' Conference on February 10 last, and their cooperation was asked for. In reply, a letter, dated May 21, was received from the secretary of the Headmasters' Conference committee, suggesting the issue of a short circular explaining the items of information that it was most important to collect. In response to this suggestion a memorandum was drawn up and sent out by the anthropometric committee to the headmasters of 107 public schools. It is hoped that this action will result, in the course of time, in the general establishment of anthropometry in public schools.

Measurements are now being carried out generally under the direction of the medical officers of the education authorities, in primary schools, and in a certain number of provided secondary schools. But there is still a wide field among secondary schools for both boys and girls in which the committee could do good work.

The 1908 report of the committee on anthropometric method has been issued as a separate

publication by the Royal Anthropological Institute (price, 1s. net). This will make the scheme of the committee available, in cheap and convenient form, to all who propose to undertake anthropometric work, and will ensure the uniformity which is so essential to make the results of different measurers comparable.

The committee recommend that they should be reappointed, with a grant of £5 for printing or typing circulars, postage, stationery, etc.

The work of the committee on the establishment of a system of measuring mental characters is going forward and promises to yield interesting results, but is not sufficiently advanced for a full report.

The committee ask to be reappointed, and that a grant of £5 be made to them for printing cards and other inevitable expenses.

President Myres reported for the committee to investigate neolithic sites in northern Greece. The work has been done by the Liverpool Archaeological Institute. The mounds of southern Thessaly are found to be the accumulations of successive village sites. This region was occupied by a neolithic population that formed an effective barrier between the Mediterranean civilization on the south and that of the Danube valley on the north, and lagged behind both. At the top of one of these mounds were found bronze age graves of an Ægean people. Only a few mounds have as yet been opened, while hundreds remain untouched.

The papers presented covered a wide range of subjects. A majority of these are given in abstract.

Miss A. C. Breton described "Race Types in the Ancient Sculptures and Paintings of Mexico and Central America." The different race types in the ancient sculptures and paintings found in Mexico and Central America form an important anthropological study. An enormous mass of material, evidently of many periods, includes sculpture, archaic stone statuettes, the portrait statues and reliefs at Chichen Itza, the Palenque reliefs and the series of magnificent stelæ and lintels at Piedras Negras, Yaxchilan, Naranjo, Copan, Quirigua, etc.

In terra cotta or clay there are the hundreds of thousands of small portrait heads and figurines found at Teotihuacan, Otumba, the neighborhood of Toluca and other ancient sites. Larger clay figures have been found in quantities in tombs, as in the states of Jalisco and Oaxaca; these were made as offerings, instead of the sacrifice at a

chief's burial of his wives and servants. Small jadeite heads and figures, also found in tombs, show strongly marked types. If there are few specimens in gold, it is because throughout the country the Spaniards ransacked the tombs for gold. In painting there are the picture manuscripts, the fescos at Chichen Itza, Chacmultun and Teotihuacan and a number of vases with figures from Guatemala and British Honduras.

This material is now available for students in Mr. A. Maudslay's "Biologia Centrali-Americana, Archeology," Dr. E. Seler's collected works, the publications of the Peabody Museum, and the reproductions of the Codices by the Duc de Loubat, also in the splendid collections of the Museum für Völkerkunde at Berlin, the Mexican Hall of the Natural History Museum at New York and the Peabody Museum.

Among distinctive types are: the chiefs in the reliefs at Xochicales, who sit cross-legged; the little shaven clay heads at Teotihuacan; the tall, well-built priests, with protruding lower lip, of the Palenque reliefs; the fifteen caryatid statues in feather mantles, of the Upper Temple of the Tigers, at Chichen Itza; and the sixteen stern warriors carved at its doors, these last similar in type to some of the modern Indians of the villages near Tlaxcala.

There are portraits of the Mexican kings on the border of a picture-map which represents the western quarter of Tenochtitlan, and of the householders in that part of the city. Of female types there are the painted clay figures of Jalises with compressed heads. Some of them have short, broad figures, others are slender. Both types still survive. The queenly women in Codex Nuttall-Zouche, and the women-chiefs of the Guatemalan stelæ belonged to a different caste to the obviously inferior women on those stelæ, fattened in preparation for sacrifice.

Herr T. Maler's most recent explorations on the borders of Guatemala have given magnificent results in the finding of thirty-seven stelæ at Piedras Negras, and at Yaxchilan twenty stelæ and forty-six sculptured lintels. The superb figures of warriors and priests indicate a race of men of tall, slender stature and oval face, with large aquiline nose, whilst the captives appear to be of a different race.

A second paper by Miss Breton dealt with the "Arms and Accoutrements of the Ancient Warriors at Chichen Itza." Chichen Itza, in Yucatan, is as yet the principal place in the region of Mexico and Central America where representatives

of armed warriors are found. There was a remarkable development in the later history of the buildings there of painted sculptures and wall-paintings, mostly of battle scenes and gatherings of armed chiefs.

The stone walls of the ruined lower hall of the Temple of the Tigers are covered with sculptured rows of chiefs, who carry a variety of weapons. Of the sixty-four personages left, half a dozen have ground or polished stone implements; others hold formidable harpoons (two of them double) or lances adorned with feathers; whilst the majority have from three to five spears and an atlatl (*i. e.*, throwing stick). These are of different shapes. One figure has armlets with projecting rounded stones. Some have kilts, sporrans, leggings and sandals. Eleven personages have tail appendages. There are protective sleeves in a series of puffs, breastplates, helmets and feather head-dresses, necklaces of stone beads, masks, ear and nose ornaments in variety. Small round back-shields, always painted green and fastened on by a broad red belt, may have been of bronze attached to leather, as a bronze disc has been found. Round or oblong shields were carried by two thongs, one held in the left hand, the other slipped over the arm.

The two upper chambers of the same building have reliefs on the door jambs of sixteen warriors life size. They carry a sort of boomerang in addition to spears and atlatls. In the outer chamber was a great stone table or altar, supported by fifteen caryatid figures. Upon its surface was a relief of a standing chief, holding out his atlatl over a kneeling enemy who offers a weapon. The walls of both chambers were covered with painted battle scenes, in which several hundred figures are still visible. They carry spears, atlatls, round or oblong shields, and a kind of boomerang which was used by the natives in Australia about eighty years ago. It was intended for striking rather than throwing. On one wall the method of attacking high places by means of long notched tree-trunks as ladders and scaffold towers is shown.

The building at the north end of the great Ball Court is evidently very ancient, and its sculptured walls have chiefs with spears and atlatls. The temple on the great pyramid called the Castillo also has warriors on its doorposts and pillars, with boomerangs, spears and atlatls, and so has a building in the great Square of Columns. In an upper chamber of the palace of the Monjes are paintings in which are men with spears and atlatls, and also spears with lighted grass at-

tached thrown against high-roofed buildings. A survey of all that has so far been discovered at Chichen gives a vivid idea of primitive battle array.

One whole day was devoted to papers and discussion relating to a proposed ethnographical survey of Canada. Mr. E. Sidney Hartland began with a "Retrospect" which told of the state of culture encountered by the French when they took possession of the territory in the seventeenth century and which reviewed the work that has been carried on since then by men as well as institutions.

Professor Franz Boas, whose investigations in the Canadian field of anthropology are of the first importance, summed up the "Ethnological Problems of Canada." In the past twenty years a general reconnaissance has been made largely through the influence and financial aid of the British Association. The time has come to concentrate attention on specific regions and problems. Many of the general problems embrace the whole of the western hemisphere, such, for example, as the wide distribution of Indian corn and the angular character of the art. The culture of the American Indians is remarkably uniform in comparison to that of Africa or Australia. The continent may be divided into a central, marginal, isthmian and an island region. The Canadian aborigines belong to the northern marginal culture. The origin of the Iroquois is placed in the southern Appalachian Mountains, although at the time of the discovery they occupied the lower St. Lawrence. The Iroquoian language has nothing in common with Algonquian, Siouian or Eskimo. On the other hand, it resembles the Pawnee and the tribes of the southwest. The blow gun of the Iroquois seems to connect them with the peoples of the Gulf of Mexico and of South America. The Iroquois, therefore, do not belong to the northern marginal culture. The Cree (Algonquin) of Labrador have migrated as far west as Kamloops, B. C., and isolated Athapaskan tribes are found along the Pacific coast. Lack of intensity of the Athapaskan culture accounts for the readiness with which it is influenced by contact with neighboring cultures. The Alaskan Eskimo came in recent times from northeastern America instead of from Asia, as was formerly believed. On the other hand, that there has been close contact between Siberia and northwestern America is suggested by house forms and in other ways. One of the problems is to trace the northwestern limit of the use of pottery.

An "Ethnographic Study of the White Settlers" was discussed by Dr. F. C. Shrubbsall, who spoke of what was being done to improve the breeds of live stock and the varieties of grain in contrast with the lack of interest shown in the improvement of the human race. The speaker urged upon the government the importance of taking preventive measures while the dominion was still young as a means of avoiding the necessity of remedial measures which confront the peoples of the old world.

Dr. G. B. Gordon contributed two papers on American anthropology. The first of these was a review of the researches into the history of man on the North American continent that have been carried on under the auspices of the government and institutions of the United States. He called attention to certain far-reaching changes that have been witnessed in the attitude of the educated classes and especially of the institutions of learning with reference to those studies that fall directly within the province of anthropology, changes which it is believed are destined to affect very profoundly those interrelated branches of learning, which, like history and sociology, are most directly affected by the anthropological method. These tendencies are made manifest by the history of anthropological activities in those quarters that are most influential in shaping educational development and methods of research.

The work of the Smithsonian Institution through the Bureau of Ethnology has been a prominent factor in promoting that interest in the study of the native races which has been carried on with successful results by the great universities and museums of the country. Nothing in the history of anthropology is more significant than the present condition of archeological studies in the great universities as contrasted with that which obtained a few years ago. Until very recently the name of American archeology was obnoxious because it was foreign to European civilization. To-day in the same quarters the chief archeological interest lies in the prehistoric period; and with a realization of the unity of all problems of human development comes a rapidly increasing interest in American archeology as a subject of study. This is the condition of archeological science in American institutions of learning to-day; and as an index of this condition the Archeological Institute of America, which for many years has maintained schools at Athens, Rome and Jerusalem has only last year established a similar school in New Mexico and is

making an effort to establish another in the City of Mexico, the object of these two schools being the study of American archeology.

After reviewing the work done by Harvard, Yale, Columbia, the University of California, the University of Pennsylvania, the American Museum of Natural History and the Field Museum of Natural History, Dr. Gordon called attention to the services rendered to anthropology by private individuals and paid a special tribute to Mr. George G. Heye, of New York, whose collections of American archeology and ethnology assembled during the last two years may be compared in magnitude and importance with those assembled during the same period by some of the larger museums. The result achieved in this instance may serve to indicate what may be done in American archeology in a short time by one man who is possessed not only of the necessary means, but also the necessary energy intelligently directed. These splendid collections are now being installed in the University of Pennsylvania Museum, where Mr. Heye has been elected chairman for American anthropology on the board of managers in recognition of his conspicuous services to science.

In similar terms the speaker referred to the archeological work done by Mr. B. Talbot B. Hyde among the ruined pueblos, where a splendid collection of pottery and other art objects was obtained, which has been divided between the American Museum of Natural History in New York and the University Museum in Philadelphia.

Dr. Gordon's second contribution was based on his "Ethnological Researches in Alaska." In 1907 he made an expedition on behalf of the University of Pennsylvania Museum into the Koskokwim Valley in Alaska to investigate the natives of that region, who, owing to the remoteness of their habitat from the white man's influence, preserve in a marked degree their aboriginal characteristics. The route followed was from Dawson westward by way of the Tanana and Kantishna rivers to the headwaters of the Koskokwim, thence down the entire length of that river to the coast. In the upper valley of the Koskokwim were found Dené tribes preserving the characteristics of the wide-spread Dené stock. About seven hundred miles from the mouth of the river, Eskimo influence began to be felt; two or three hundred miles farther down Eskimo customs had entirely replaced the native customs even in those communities where there was little or no mixture of Eskimo blood. The tendency of the Dené in this region to adopt Eskimo culture

which has intruded from the Behring Sea coast is strongly marked and shows that the Eskimo culture is the more aggressive and the more advanced. At the mouth of the Koskokwim, the Eskimo communities have retained in full vigor their peculiar customs and mode of life, because that part of the Alaskan coast has not been visited by trading vessels or by whalers.

The general health and physical welfare of these communities as well as of those on the Koskokwim River were noticeably better than in those localities where the natives have been in continued contact with the white man's influence, as, for instance, on the Yukon and on Norton Sound. At the same time the mental and moral state of the former population is decidedly better than that of the latter. All observations tended to show that the inhabitants of Alaska, both Dené and Eskimo, undergo deterioration physical and moral under the influence of civilization.

Mr. Charles Hill-Tout gave an account of his researches into the "Ethnology of the Okanákēn," the easternmost division of the Salish of British Columbia. The subject was treated from the standpoint of habitat and old settlements, relation of the common language spoken by the whole division to contiguous linguistic divisions of the same stock, material and social culture, totemism, evidence from material culture and language bearing upon the origin of the stock before the division into its present grouping. The linguistic evidence points to a connection with Oceanic stocks. Specimens of Okanákēn myths were given, also an outline of the grammatical structure of the Okanákēn dialect.

Professor E. Guthrie Perry exhibited an interesting series of copper implements recently found together in the bed of the river at Fort Francis, Ontario. The fact that one of the pieces is tipped with silver leads Professor Perry to conclude that the material from which these implements were made came from the north shore of Lake Superior.

Another communication of special local interest was that by Professor Henry Montgomery on the "Archeology of Ontario and Manitoba."

Much of the seventeenth century's history of that portion of Canada now known as Ontario has been verified, and additional information obtained about the Iroquois, Hurons and Algonquins and also the earlier inhabitants by the archeologists Tache, Daniel Wilson, A. F. Hunter and David Boyle. Some of the collections are in the Toronto Provincial University, others in the Toronto Provincial Normal School, the Dominion Survey Mu-

seum in Ottawa and Laval University, Quebec. There have been several occupations of the province. The following are the principal kinds of remains found: marine and fresh-water shell objects, bone awls and knives, arrow points, stone knives and scrapers, stone wedges and chisels, stone gouges, stone pipes, gorgets or banner stones (generally made of Huronian slate), amulets (or perhaps ceremonial stones), pipes of pottery of many patterns, as well as vessels of pottery, the last being mostly broken. Mention was made of a large amulet or ceremonial stone nineteen inches in length, and made of limestone, which was recently found beneath the stump of a large oak tree the cross-section of which had two hundred and eighty rings of growth. The wedges, chisels and gouges are of good form and finish, and are plentiful. All these objects of manufacture have been found on or near the surface of the ground.

Ossuaries or circular bone-pits fifteen to twenty feet in diameter and six to eight feet in depth have been discovered near Georgian Bay and in a few counties bordering upon Lake Ontario. The writer of the paper referred to his work in these ossuaries in 1876 and 1878 in Durham and Simcoe counties. Articles of French manufacture occurred in some of them, and the crania in all of them are of the Huron form. Some ancient skulls found in other parts of Ontario were described as being of a very inferior type, the frontal portion being extremely low and narrow, and the supernumerary bones numerous.

Primitive paintings may be seen on the faces of rocks along the shores of a few of the northern lakes. It is not known by what people they were made.

There are aboriginal tumuli in southeastern Ontario and also in the vicinity of the Lake of the Woods and Rainy River. Already some interesting things have been obtained from them in the way of pottery vessels and of copper and stone implements and ornaments. Large oak trees grow upon some of these mounds. One long mound in eastern Ontario has been described as a "serpent" mound; but, the writer by a personal examination of this mound has not found satisfactory evidence that it was intended to represent a serpent. It bears very little resemblance to the famous serpent mound of Ohio. It is, however, undoubtedly artificial, and it shows a relationship with certain mounds of the province of Manitoba.

The archeological remains in Manitoba may be regarded as belonging to two classes, namely, those objects, such as grooved stone mauls and

hammers, stone discs, arrow points and broken pottery, found upon or near the surface of the ground, and, secondly, tumuli, earthen ridges and house enclosures. The tumuli of earth are sometimes of considerable size, and often have human skeletons with vessels of earthenware and implements and ornaments of bone, shell, stone, antler and copper buried within them. The specimens obtained from these mounds are usually few in number. But they are very characteristic and instructive in Manitoba and vicinity. Long, wide ridges of earth occur in this province, the largest found being about 2,000 feet long, forty feet wide and three feet high. Of the many examined by the writer one such ridge in Dakota measured 2,688 feet in length. It is probable that these earth ridges were used for ceremonial purposes.

Two kinds of burial mounds occur, and also mounds which were used as house-sites, only objects which were of domestic use having been found in the latter. A burial mound, which the writer explored last year, has a definite structure of considerable interest. A burial pit, three feet and six inches in diameter and two feet deep, was found a little southeast of its center. The pit contained five human skeletons, one large earthen pipe decorated by a groove around its bowl and transverse grooves in the lower side of its horizontal stem. Its bowl was $2\frac{1}{4}$ inches across and $3\frac{1}{4}$ inches high. There were also with the pipe and skeletons a barbed flint arrow point, marine shell (two species) beads, one polished round stone the size of a very large marble, and a valve of the river shell *Unio* containing some red ochre. The burial pit extended through the soil and down into the subsoil. Around the pit and forming a circular area of about twelve feet in diameter the soil consisted of a purplish solidified mass. Upon this and extending over the pit was a calcareous layer from three to six inches in thickness and about twelve feet in diameter. There were two large stone boulders above the calcareous layer, and all were covered with the rich black prairie soil. Within this black soil, and about two feet above the calcareous layer, was a layer of yellow clay from four to six inches thick and about equal in extent to that of the calcareous layer covering the pit below. Usually in these mounds there is a variety of objects, shell pendants and necklaces, spoons, beads, bone armlets, stone pipes and pottery vessels. The two most characteristic objects buried with the human remains are small pottery urns of coiled ware decorated externally by a spiral furrow, and the straight, tubular, catlinite

stone pipes. The marine shell beads and the Michigan native copper objects are also somewhat characteristic. In addition to the three classes of tumuli and the ridges there are communal house-sites or large enclosures. The largest measured by the writer was eighty feet wide and two hundred and twenty-five feet long. The wall of this enclosure is now about ten feet thick and eighteen inches high. There are many cromlechs or stone-circles in Saskatchewan, and probably some occur in Manitoba. Possibly the extinct Arikaras of Dakota were related to the builders of the more ancient of the burial mounds in this region. A copper wedge, a sheet of native silver and copper, an amulet and other specimens from Ontario, as well as many photographs and drawings of Manitoba mound products, were exhibited to the members of the association.

In "The Blackfoot Medical Priesthood," Dr. John MacLean defined medicine men, or, to use a better term, the medical priesthood, as shamans, conjurers, doctors, prophets and priests, and gave the different grades in the priesthood. The subject of initiation was dealt with, and the course of instruction was outlined. Previous to this the would-be medicine man undergoes a period of voluntary seclusion, during which he fasts and sees visions. The dress and facial decoration of the fraternity was described, and the sacred numbers were explained. The subject of disease was next treated, the Blackfeet being particularly prone to small-pox and consumption. The causes of the diseases were discussed, especially the influence which the belief in evil spirits has upon the minds and bodies of the natives. The author then treated of the medicine man in connection with religion, such subjects as animism, sacred stones, sacrifice, spiritualism, hypnotism, prophecy and incantation being discussed, as well as medicine songs, charms and amulets. Lastly, the author considered native medicines and remedies, and discussed the value of the work of the medicine men among the natives, and the influence exercised by them on the native religion.

The western hemisphere did not by any means monopolize the attention of the section. In addition to the reports of standing committees already noted, a number of papers were presented and on a variety of subjects. Mr. D. G. Hogarth sent a paper giving the results of "Recent Hittite Research," which confirm the theory that the original home of the Hittites was Cappadocia. The city of Boghaz Kai was the center of the confederacy and contained the royal archives of the Hittite kings

from the fifteenth to the twelfth centuries B.C.

Dr. T. Ashby presented a communication on "Prehistoric Antiquities in Malta." Excavations have been conducted by the government of Malta on the Corradino Hill, in which the cooperation of the British School at Rome has been cordially welcomed, and its investigations assisted in every way; the supervision has been entrusted to the director of the school and to Mr. T. E. Peet, student of the school, assisted by the constant cooperation of Dr. T. Zammit, curator of the museum. The great megalithic buildings of Gigantia, Mnajdra and Haġar-Kim, which Dr. Arthur Evans considers to have been buildings of a sepulchral character in which a cult of departed heroes gradually grew up, and other smaller prehistoric monuments of the islands, have been carefully described by Dr. Albert Mayr, though others have since become known, but excavation was needed in order that many essential facts might be ascertained. The investigation of the rock-cut hypogeum of Halsafieni, the architectural features of which imitate in the most surprising way those of the sanctuaries above ground, has for the first time produced an adequate series, available for study, of the prehistoric pottery of Malta; for from the excavations of Haġar-Kim but little has been, unfortunately, preserved. Dr. Zammit and Professor Tagliaferro will shortly publish adequate descriptions of the hypogeum and its contents. Of the three groups of megalithic buildings on the Corradino Hill, two had been already in great part excavated in the nineties, and the complete clearing of the upper one, which apparently was of a domestic character, was the first work undertaken in May. Its plan is extremely irregular, and much of it can hardly have been roofed unless in thatch or woodwork. A considerable quantity of pottery was found, very similar in character to that of Halsafieni, and belonging, like it, to the late neolithic period. It has some affinities with pottery recently found in Terranova, the ancient Gela, in Sicily, but in many respects is unique. Many flints were found, but no traces of metal. A stone pillar was found in one portion of the building, some two feet eight inches long and about ten inches in diameter, which may have been an object of worship. The excavation of a second and smaller group, nearer the harbor, had been already completed by Dr. Zammit and Professor Tagliaferro; but a third, further to the south, on the summit of the ridge, had never been examined, and it, too, was thoroughly investigated. An even larger quantity of

pottery of the same character was found, with flints and fragments of stone basins, etc. It approximates more in style to the larger megalithic buildings of the island, and has a facade with a more pronounced curve than at Haġar-Kim, constructed of very large blocks, but much ruined. The interior consists of several distinct groups of rooms (often apsidal) not intercommunicating. The construction is of rough masonry, with large slabs at the bottom, and smaller blocks higher up; the walls begin to converge, even at the height (5 to 6 feet) to which they are preserved, as though to form a roof. Into one of the rooms a very curious trough has at a later period been inserted; it is cut in a block of the local hard stone, eight feet nine inches long, three feet eight inches wide, and is divided by six transverse divisions into seven small compartments, which show much trace of wear. The object of it is not as yet apparent. Another more carefully constructed room, perhaps contemporary with the trough, has its walls partly of large slabs, partly of narrow pillar-like stones. The floors of these rooms are sometimes of cement, sometimes of slabs. Many bones of animals were found, but only one human skeleton, and that in disorder and at a comparatively high level. The use of standing slabs at the base of walls, with coursed masonry above, visible in these buildings, finds its parallel in the Giants' Tombs at Sardinia, the prehistoric huts of Lampedusa, and in many other places.

Dr. F. C. Shrubbsall spoke on "The Influence of Geographical Factors on the Distribution of Racial Types in Africa." The movement seems to have been from north to south, following the course of the mountain ranges and across the continent eastward and westward following the great river systems. The influence of the nature and configuration of the land and of climatic conditions upon the natives was explained. The presence in certain regions of the tsetse fly and other parasitic pests led to modified conditions in the animal life and thus directly or indirectly influenced the occupation of these sections by the native races.

"A Study of Malaria in Ancient Italy," by Mr. W. H. S. Jones, was read by Dr. Shrubbsall in the absence of the author. Malaria has exerted a powerful but unmeasured influence on the history of Rome. It is caused by a mosquito. The patient becomes immune only after many years. In order to escape from the mosquito, which can not fly far, towns were built on the hills. At a very early period Rome was marshy. Whether

it was malarious before 500 B.C. is an open question, although the disease is thought to have been introduced by merchants from Africa as early as 600 or 700 B.C. Continuous wars brought about conditions that tended to increase the breeding of mosquitoes and thereby the prevalence of malaria. The periodicity of the fever gave rise to the belief that it was a divine visitation. There was thus a goddess of fever. The author cited early writers who mention fever.

A communication describing "A Cult of Executed Criminals in Sicily" was presented by Mr. E. Sidney Hartland. Certain of the Sicilian peasantry believe in the intercessory powers of beheaded malefactors, or "Decollati," to whom petitions are addressed. Instances ranging from the prayers of the love-lorn maiden to appeals for protection in times of attack by robbers were cited by the author. Dr. D. Randall-MacIver's paper on "A Nubian Cemetery at Anibeh" was read by Professor Gordon, and that of Mr. F. M. Dawkins on "The Excavations at Sparta of the British School at Athens," by Professor Myres.

Many social functions were held in connection with the week's program at Winnipeg, among them being receptions by Lord and Lady Strathcona, the Lieutenant-Governor and Lady McMillan, Mr. C. C. Chipman, commissioner of the Hudson's Bay Company for North America, and Mrs. Chipman, Chief Justice and Mrs. Howell, Principal and Mrs. W. J. Black, and the local executive committee. Excursions were also made to many points of interest in and about Winnipeg.

At the close of the meeting about 180 members, including the officers and guests of the association, were invited to take part in an excursion from Winnipeg to the Pacific coast and back. This was made possible through the generosity of the western provinces. The schedule was planned so as to include visits to the capitals and largest cities of the provinces as well as mountain resorts like Banff, Lake Louise and Glacier. The stop at Gleichen afforded an opportunity to see a group of Blackfoot Indians. The scientists highly appreciate and will long remember the courtesies extended by the reception committees at Regina, Moose Jaw, Calgary, Vancouver, Victoria and Edmonton. They were also much impressed by the rapid material development of the country and its splendid endowment of as yet unmeasured resources.

GEORGE GRANT MACCURDY

YALE UNIVERSITY,
NEW HAVEN, CONN.