

FIRST YEARLY MEETING OF THE IOWA ANTHROPOLOGICAL ASSOCIATION

The Iowa Anthropological Association was founded October 5, 1903, at Iowa City, Iowa. An account of its origin, formation, and organization was published in the January, 1904, number of *THE IOWA JOURNAL OF HISTORY AND POLITICS*, p. 143. The Executive Board arranged for the holding of the first yearly meeting in the Hall of Liberal Arts, at Iowa City, Iowa, on February 13, 1904. The following is the Secretary's report of the proceedings, corrected and revised:—

INTRODUCTORY ADDRESS BY THE PRESIDENT

President Samuel Calvin called for the program at 9:45 a. m. He explained the founding of the Association, its general purpose, its organization, the arrangements for the present meeting, referred to the speakers, and paid an eloquent tribute to the guest of honor, Professor W. J. McGee, Chief of the Department of Anthropology at the World's Fair, St. Louis.

In introducing the first speaker, Professor Calvin quoted from some one the remark that Geology would be a grand epic if it only had some human interest, and stated that that human interest had now been found in its relation to Anthropology. But to understand this last chapter we have to read the first part of the story. Hence the close relationship of the two sciences.

THE LIGHT THAT PHYSIOGRAPHIC STUDIES THROW ON
ANTHROPOLOGICAL PROBLEMS

Prof. F. G. Wilder opened the regular program. His first point was that Geology and Anthropology are both field studies, and that where one ends the other begins. Here they interblend to such an extent that the student in one field may easily devote himself to the other.

Some of the phenomena have points of likeness. The works of early man often resemble Nature's piles of earth. The student of either must know the characteristics of each. Kames, mounds, etc., must be distinguished. Geology states the principles by which the age of remains of early man is to be judged. The Anthropologist must study the strata and the possible modes of covering. For want of such study modern relics have often been assigned a venerable age. The age can not be determined by the relics alone. There are agencies which may rapidly bury a relic, which have to be taken into consideration in each case. These agencies are mostly Geological. It is that division of Geology which is usually called Physiography that is most helpful to the Anthropologist.

Discussion

President Calvin described the Indian quarries in the pipestone region of Minnesota. He stated that there were two ledges of quartzite above the pipestone layer. They are six feet thick. This was removed by hammers and heat. The pipestone layer when reached is about fourteen inches thick. A horseshoe ornament and a tablet with engraving on it, both made by the modern Indians, were

passed around. The mining has been done in a number of places and for a long time.

Professor W. J. McGee explained the use of fire by Indians in pipestone quarries. It was made to heat the rocks and then water was thrown on. They cracked and were then wedged and levered away. The places became sacred after the object sought was reached. The region was then deific, filled with spirits of supernatural powers. No violence must be committed there. No white man was ever killed in such a region.

The pipestone was used to make pipes, tomahawks, etc. The calumet was a pipe and a tomahawk, and was a symbol of peace and war. But the tomahawk was useless because of soft material. Hence the Indian's idea of its efficiency was based on his idea of the spirit which pervaded it.

The school of Geology is essential to the education of a high grade Anthropologist.

THE HUMAN BEING FROM THE STANDPOINT OF BIOLOGY

Prof. C. C. Nutting said that from the biological standpoint man is an animal, yet a somewhat important one. Hence Biology studies man with perhaps more care than other life. This it can do the more easily because man is near, and the Biologist knows him better even without study.

In the scale of life man is high up. Yet biologically he is not so high as has often been thought. Naturalists have sought for some distinguishing characteristics which separate man entirely from the rest of life. It has been claimed in various organs—hands, teeth, lower limbs, etc.

But the hand is not superior. It is primitive in structure and not better than that of some so-called lower creatures. The teeth are unspecialized. In food man is omnivorous. His food handling is inferior. His erect posture is not a monopoly. Even the kangaroo, some of the apes, and all the birds assume the erect position usually.

Man's high rank is not found physiologically except in his brain. This is specialized. Relatively it is overgrown and overbalances all the other unspecialized parts of his system. His skull is only in a small degree remarkable. Those of the gorilla, ourang, and chimpanzee are about equally specialized with that of man. The most characteristic feature of the human skull is the chin. The angle of the two is clear and definite.

Another rather special characteristic of man is his relatively hairless skin. There is a widespread notion that he became hairless by wearing clothes. But this is not so. The savage is naked, yet hairless. It is probably due to the correlation of the epiblastic structures. Between the teeth, hair, the sense organs, and brain there seems to be some as yet little understood correlation; and preponderance of development in the last brings about degeneration of the others.

Professor Cope made a suggestion regarding the relation of the herbivores and the carnivores, and how the speed of the former and the strength of the latter had been achieved. One line chose flight, the other might as its chief means of defence. Thereafter their peculiar developments followed. A third group of quadrupeds did not do either, but took to the trees and became brainy. It turned out in Biology that

the race had not been to the swift or the battle to the strong. It had been to the brainy.

High specialization, while it has its advantages, is also dangerous. It cannot accommodate itself to changing environment. This is often seen in animals which become exterminated by change of circumstances that come on rather rapidly. Professor Cope's "Law of the Unspecialized" expresses the fact that the most highly specialized members of a group are less likely to leave descendants than the less highly specialized. Is this brain specialization of permanent advantage to man? Or is it a possible means of the ultimate extinction of the human race? Will man's high intellectuality cut him off from the life of the world? Professor Thorndike's analysis of the lack of reproductive tendency of the intellectual or college-bred classes may point to some facts of great import. It has been implied that the "common man" will save the world from depopulation. If so, this shows the great importance of the "average man."

Discussion

Professor Seashore asked some questions as to the possible power of sexual selection in bringing about some of these changes. To these *Professor Nutting* very briefly replied that in his opinion it was ever active, but was not sufficient to account for the changes.

ARCHÆOLOGY AS AN INSTRUMENT OF ANTHROPOLOGY

Professor Arthur Fairbanks took up this subject. By Archæology is understood the study of the remains of man in past ages. Such a study is not an independent science;

it is only a method or instrument, scientific in character and useful in the prosecution of various sciences. Its chief instrument is the spade. When the remains of a particular people have been uncovered, classified, and dated, the work of the Archæologist is finished; then other sciences use the material for their different ends.

History utilizes it. The literary sources for the history of Egypt have been corrected and supplemented by a vast amount of new material. Of the history of the Mesopotamian valley, which can now be traced back more than 4000 years B. C., almost nothing was known till the explorer's spade brought to light countless clay tablets on which this history is recorded in detail.

The study of sculpture, painting, and other fine arts utilizes this material. For a knowledge of Greek sculpture we are not dependent, as was Winckelmann, on late Roman copies, because a long series of originals has since been unearthed, extending from the earliest times down to the Hermes of Praxiteles and the Nike from Samothrace. The art critic can begin his work only after Archæology has completed its task in recovering works of art, naming them, and ascertaining their approximate date.

Even the study of literature and language finds much material here. The literature of Egypt comes from its tombs. In Babylonia the records of that early past reveal languages as well as literature before unknown. Even Greek literature is being enriched from this source.

In particular, the historical study of social conditions depends on the use of this material. The sites where a people lived and the buildings they occupied, the utensils and

weapons they used in private life, in commerce or as a state, all these are studied first by Archæology and the material thus prepared is the basis of Historical Sociology.

It is thus that Archæology becomes the basis for the study of man in that it furnishes so large a body of material for this study. If Anthropology is to be understood as the Science of Man it will utilize at least three methods:—(1) The ethnological method. It will study savage races, not because they are “more human” than civilized races, but because here the student learns what is least human. To know what man is we need all the light we can have. As the Biologist studies the lowest cells to get at the problem of life, so the Anthropologist studies the lowest types of man to formulate an answer to the question “What is man?” (2) Anthropology will use the archæological method; it will study the history of human life from the earliest times to discover if possible the laws of human development, just as the Biologist seeks to learn the laws of the development of life through the whole series of living things. (3) It will not neglect the study of the highest types of man. To concentrate attention on the lowest types would be as fatal a mistake for the anthropologist as for the botanist or the zoologist.

Thus it appears that Archæology is a scientific method used by many sciences, and that it is only one of the methods used by Anthropology. I wish to protest against the conception that Anthropology is the study of savage races; it has no right to the name unless it is the study of the life of man. Of course, in order to know the higher life it is necessary to know the savage. We must go back

of the present to know the present. By Archæology we can retrace the work of man and make our knowledge of civilization continuous. Naturally the sciences of nature have developed before the science of man, yet it is idle to think that science will stop short of its highest goal. It is the relation of all the sciences of Anthropology that makes them interesting. It is because they bear on human life that we care for them.

MODE OF THE DEPOSITION OF THE LOESS AND THE CONSEQUENT DIFFICULTY IN DETERMINING THE AGE OF
HUMAN REMAINS

Professor B. Shimek treated the whole process by the analysis of a single case, viz., that of the "Lansing Man," on the Concannon Farm, by the Missouri River, twenty miles northwest of Kansas City. Of this much has been written during the last two years. Great claims of human antiquity in this locality have been based upon it. Professor Shimek has visited it, taken numerous photos, and examined the cave and its surroundings in detail. He described the general Geography, the special local conditions, and the Geology of the region.

The loess deposited where this cellar was dug is not ordinary loess deposit. It has come there by creeping, slipping, sliding. It is mixed with broken rocks, especially with the carboniferous limestone which forms the basis of the hill behind it. In and through it are a few shells such as are on the surface in the vicinity to-day. There is no natural or original loess deposit in which there occurs such a mingling of rocks, etc., as is here seen. This particular loess is

not of the first or natural deposit. It may have been a slump over the bank in very recent times, i. e., within fifty or a hundred years. There is no definite evidence of great age.

On the other hand, the remains found are not such as to indicate a man of more primitive type than the Digger Indians of the time of the early White settlement.

Discussion

President Calvin had also visited the spot and he corroborated the remarks of Professor Shimek. Just back of the Concannon house, within a rod, the carboniferous limestone comes to the surface. From this ledge the loess has probably slipped and crept to the plain below. In this dump of loess was tunneled the cellar in which the bones were found. The loess is everywhere streaked with oxidized material, showing that it had been on the surface for a time and then covered. Near the bottom of the cave is a thin aqueous deposit. This was made before the loess came down upon it. The bones were found above this. The covering of the remains could have taken place within a century.

Dr. Becker asked questions as to the shells found. A small box containing half a dozen or more was passed around. So, too, were shown various photographs of the region, the cave, etc. Blackboard drawings were used to aid in showing the relations of river and hills.

The Association adjourned for dinner. The morning session had been full of interest and every moment was eagerly occupied.

BOOKS, PHOTOS, CHARTS, FINDS

On the tables by the President were arranged a few dozen volumes of recent works on Anthropology and its kindred problems. Beside these lay also a collection of photographs of mounds in Johnson County. Maps locating some seventeen groups of these mounds, drawn to scale by Mrs. B. F. Shambaugh from data furnished by the Secretary's surveys, attracted much attention to local and Iowa problems. Around the room also hung several charts designed by the Secretary and illustrating the Science of Man in one or another phase. On another table were a score of stone implements, pottery, etc., found by Dr. Becker in mounds of Fayette County, Iowa. In the interims before and after the dinner hour the visitors improved the chance of examining these various exhibits.

ASSOCIATION DINNER

At 12:30 p. m. the Association and guests repaired to the Burkley Imperial Hotel across the street. Thirty-nine people participated in the banquet. The guests of the occasion were Professor W. J. McGee of St. Louis, President and Mrs. MacLean, Mrs. and Miss Stanley, Senator Maytag, and Representatives Jones and Weeks (the last three constituting the legislative committee visiting the State University).

After the dinner *President Calvin* in happy manner explained the gathering and then introduced President George E. MacLean, who gave the University's welcome to the Association in a brief but eloquent address.

President Calvin next introduced Professor McGee by an

appreciative reference to his Iowa work and his great eminence in the sciences of Anthropology and Geology.

Professor McGee responded in terms most flattering to Iowans. He referred to the commanding political influence of two States—Maine and Iowa—a few years ago in the councils of the Nation. Later on Maine dropped out. Now it is Iowa. No other State is so influential to-day.

Anthropology grows out of several branches and all the sciences are contributing to it. Many sciences are concerned in natural phenomena, but these are all for human ends. Hence Anthropology is the science of the science makers.

Now there is no better place for its cultivation than in Iowa where such excellence of humanity is culminating. Anthropology deals with man in every aspect of life. It has its bearing on the farm, in society, with the father, the mother, the statesman, the tradesman, and with the student. I am pleased with your Association, with its strength, with its timeliness, and I wish it great success.

AFTERNOON SESSION

Called to order at 2:45. There were present at this session from fifty to sixty persons.

THE DAVENPORT ACADEMY

Mr. J. H. Paarmann, Vice-President of the Association and Curator of the Davenport Academy of Sciences, gave some account of the work of the Davenport Academy in the field of Anthropology. This is the culminating feature of the Academy.

It has an endowment for the publication of its papers. These are exchanged with other learned societies in all parts

of the world. As they come in they are all indexed and catalogued. The bulk of them are Anthropological.

The Academy has a fine collection of Pottery, especially of the Southern Mound Builders. It has a good collection of stone implements and pipes from the Northern Mound Builders. These are of many varieties.

The Academy is coöperating with the public schools of Davenport. Teachers bring classes nearly every day. Last year over a thousand pupils had this advantage. The Curator gives short illustrated talks on peoples—Eskimo, Mound Builders, etc.—also on birds, sea-creatures, and other natural history subjects. He also meets the teachers for the purpose of aiding them in natural history teaching.

Discussion

Professor W. J. McGee also spoke on the work of the Davenport Academy, commending it for its practical efforts with the public schools and the city, and also for its very important researches. He referred especially to the tablets, which became so celebrated from the attack made on them and from the able defence by Mr. Putnam and others. These tablets are remarkable pictographs and drawings done by Mound Builders. They are of exceeding great interest. It is not yet settled whether they are pre-Columbian or not. There are some indications that they might have been done by iron, and if so by tools furnished by the White man. But they are Red men's work, and as such show his ideas and stage of development. If done with stone implements, they are perhaps still more wonderful.

To settle these matters and a hundred others we need to

explore more mounds and get more objects and more facts to compare, and by these reach larger and more definite truths. We need to carry out the work of surveys already begun by the Academy and by Dr. D. J. H. Ward. We need to greatly increase the interest in these lines.

The Secretary made a few remarks regarding the Davenport Academy in former years. He called to mind the founders—Mr. and Mrs. Putnam, Professor Frederick Starr, and other former workers as Sheldon, Parry, Barris, Farquharson, Gass, Pratt, Preston, Harrison, and others. They were the pioneers of Anthropology in Iowa. Their work was good and full of fine results. We start with the advantages which it gave.

THE RELATION OF PHILOLOGY TO ANTHROPOLOGY

Professor George T. Flom took up this very difficult problem and treated it historically and critically, discussing chiefly some phases of the more formal side of Philology and showing how it is related to Anthropology and the way in which these formal phases throw light on questions of race and origins. The limits of the discussion were necessarily within European and Aryan languages, "for outside of this area, if we exclude Semitic, linguistic studies have not yet reached the stage where we can speak with scientific certainty."

The anthropological definition of man rests upon language. The essentially human attribute, the thing that distinguishes man from all other living creatures is the power of articulate speech. This definition is a more accurate dividing line than any other physical or mental trait. But articulate

speech, while preëminently a mental trait is also to a large extent a physiological one. The true basis of linguistic study is phonetics. Phonetics is a physiological science. It is on the one hand a biological-anthropological subject and on the other a philological one.

To make clear the physiological side, Dr. Flom gave a brief but fundamental description of the physical basis of speech, entering into the analysis of the part played by the formation of the lips, teeth, larynx, etc. Articulate characteristics in various languages are thus easily explainable. For example, Latin is modified in Spain by physiological differences caused by climate and other environing influences. Deep laws explainable only through Anthropology are at work everywhere making linguistic changes. Anthropology and Philology may here be mutually helpful in the future.

Another formal side of Philology, linguistic structure, has proven a most important aid in determining social affinities and origins where other criteria have failed. The work begun a century ago and carried on with such fine results in the investigation of Aryan and Semitic peoples is a preëminent illustration.

Other problems touched upon were the Finnic question, (anthropologically and philologically), linguistic types as social criteria, the Aryan question, and the single or plural origin of languages. On the last named, Anthropologists generally derive all types from a primitive agglutinative speech, while Philologists generally have held that several absolute stock languages, developed in different quarters, are necessary assumptions.

Discussion

Professor McGee spoke with great appreciation of the paper—its learning and the treatment of the subject. He then gave his own theory of the order of development in language. Language started at first in relatively few associative vocables. Then mutations clustered about these. The vocables finally broke down. Then discrete terms grew by purposive effort to express discrete ideas.

THE RELATION OF ANTHROPOLOGY TO SOCIOLOGY

Professor Loos stated that his idea of Anthropology was nearly expressed by the the term Anthropogeny. To him the Smithsonian Institution went too far. In made Anthropology include Ethnology and much more. No science should be too ambitious. Anthropology must not claim the earth. The men of Science and the men of Philosophy are coming over to each other. The tendency to-day is making for a larger fellowship.

The study of Anthropology and of Sociology affords a common meeting ground of all the sciences. They all have a human interest. Life will not be fully lived till education shall include an elementary knowledge of all the sciences. Science must show the way and Education must undertake the task of seeing the Universe as one.

The relations of Anthropology to Sociology center in the problems of man's origin and his primitive institutions. To understand social foundations we must go back to the life of early man. We must know what are the oldest forms of the collective life. This may be investigated in two ways: deductively, the method of Plato and Rousseau; or induct-

ively, the method of the Sociologists especially since the time of Comte. Of course there were some attempts to develop social science inductively before Auguste Comte and Herbert Spencer. Aristotle was the first Baconian.

The interest of social science in the development theory has all the way been strong. Even the great trend of physical science in recent times got its *motif* from the moral and social sciences. Darwin was led to his work in Biology through the work of Malthus in Sociology.

In recent times Sociology has tarried too long in its contemplation of the lowest culture stages. These may in part, at least, be left to Anthropology defined as Anthropogeny. The assumption that the initial stages of human life persist in the present form of barbarism and savagery may be carried too far. It is subject to limitations. Bagehot has thrown doubt on it. Perhaps the savage has degenerated. To go backward is not necessarily to go down the same road one came up.

In the study as well as in the development of these sciences, the Anthropologist should do his work before the Sociologist. We must by induction go beyond the mere recorded history and the contemporaneous stages of society. We must correlate (1) the results of the physical sciences and get at the time and place of man on the Earth. Here the Sociologist joins hands with the Biologist and Geologist, all having a common meeting ground in Anthropology. And (2) we must find out when man became man, when man attained his distinctive characteristics as man, i. e., when man was created. In facing this problem the Sociologist accepts again the help of the Biologist but more especially

of the Psychologist. Comparative Biology and Comparative Psychology are now working in the same direction in what we know as Embryology and Child Psychology.

History has for a long time been doing its best to pave the way for Sociology, but it has given us only a history of the formation of political groups. This is part of the preparation. It is good as far as it goes. But Sociology has other aspects and must have other helps.

Philology, Mythology, and Comparative Religion (or Eusebiogeny, to use Dr. D. J. H. Ward's aptly chosen term) are three other great aids. These serve Sociology rather than Anthropogeny, but all have much in common in their initial interest in man's early institutions.

With these various instruments—including Anthropology as above defined—the Sociologist continues the study of man and his societies in the higher cultural stages.

Discussion

Professor Nutting asked: "When did man become man?" He said the difficulty lay in the answer to the question: What is man? In the stream of life, where shall we divide and say, this is man? The gradation is too gradual. Only a theoretical definition or limit can be made.

Again, what is human? Here the same difficulties meet us. When we answer, we are on theoretical grounds.

Professor Loos replied that there are now Durham cows and fan-tail pigeons, even if we can not trace them all the way. And yet we can practically do this.

Professor McGee came forward as reconciler by stating that man was the only fire-using animal, and that this would

answer the question asked by Professor Nutting. This is a peculiarity of the earliest man. To use fire is to be human in contradistinction to other life.

THE LESSONS OF ANTHROPOLOGY FOR EDUCATION

Professor F. E. Bolton approached this subject from the field of Pedagogy. Let us have Anthropology considered not only as a study of dead Indians, but as some exposition of present and future man. The evolution of man can not be understood without knowing present tendencies. To accomplish this we must study present day human beings of different races, different nationalities, and also the child as compared with the adult. Through Anthropometry and Child Study (and these are phases of Anthropology) this is being accomplished. The child is becoming the supreme thing in Education and is being studied genetically. By this means we shall be better able to shape his education toward ideals.

Education as science has been completely reconstructed in recent years. In 1891 the *American Journal of Psychology* had just begun. This was a frank attempt at the application of the scientific method in education. Since then a dozen others have come forward, and I now have to spend sixty-eight dollars a year for educational journals. The old education was a dry subject. It is more interesting now. Spencer says it is "complete living." Dewey says it is life, or "Life is education." Formerly as a science it was the study of methods of teaching the three R's. It has now extended to life. It is not longer centered in the pedagogical department. The whole University is working on it. So

is the public school system. They are trying to make educational adjustments. And so is the modern periodical, especially of the magazine type.

Hence education reaches out into all domains of life. It looks to, it gleans from any and every source which have anything to offer toward better adjustment of life to environment. It includes all the means and all the ideals which are to be perpetuated from generation to generation. Education as a science now ranks with any of the liberal arts. It is as valuable for the lawyer, the doctor, and the business man as for the teacher. It is no longer a question of methods and devices, but a study of the interpretation of life and the means of its better development. To provide for the future, the past and the present must be studied and evaluated. This Anthropology is doing. Educational science must continually look to Anthropology not only for skull measurements, but for the genesis and meaning of psychic phenomena. Whence come and what mean fears, automatisms, various instincts, etc.? Hundreds of valuable anthropo-pedagogic studies have been made. Chamberlain's *The Child: a study in the Evolution of Man*, his *The Child and Childhood in Folk Thought*, and Groos' *The Play of Man*, are among the best examples.

Let me allude to one of the courses in our curriculum. One third of it is given to the Biology, one third to the Psychology and one third to the Sociology of the human being, in order to understand him and thereby be the better able to develop him. [Several charts showing the development of the nerve and brain systems were introduced]. The law of use was applied to show how it has evolved them. Use is Nature's method, her pedagogical law.

From use we get to heredity at once. This brings up the theories and the attempts at explanation. Is Lamarck or Weismann right?

Next, it is necessary to ask, what is the effect of the different studies on brain development? How and to what extent do they help life?

Then comes the question of instinct. What is it? When is it begun? When is it most susceptible of influence? Education should seize an instinct when it is nascent. Otherwise it is arrested in its development. This is true in mental and moral as in physiological development. On this Anthropology will throw much light. The study of the evolution of the human race is of vast importance. The theory of Recapitulation (though often overdone) is of utmost import. (Professor Dewey is now working out a new system of Education on the basis of human evolution).

Then comes the question of the order of the studies. We have run into ruts. We are just beginning to see with Locke that all knowledge must take its rise in the senses. Those born blind never know and never dream of white, red, etc. Of these they can have no real knowledge. The study of defectives has taught us much. The methods by which Laura Bridgman and Helen Keller have gotten knowledge have shown us that we should not give the child abstractions first. He should first get the concrete form from which later to draw the abstract. In his early education he should be gaining experience at first hand, and I should emphasize the word hand. Before the days of schools this was the way he learned. Then we became bookish and crowded together in cities. Now hand experience is dear and scarce. We have to pay for it in manual training classes.

Again, as between the senses, oral instruction is first. It is an earlier sense, and the consciousness is best awakened through it in the early stages. This we learn from Anthropology and Biology.

THE RELATION OF ANTHROPOLOGICAL WORK TO IOWA HISTORY

Professor B. F. Shambaugh spoke briefly and concisely as follows:—From the preceding papers and discussion it appears that Anthropology now occupies a central position in science. Some of the sciences lead up to Anthropology; others start out from Anthropology.

From the view point of logical arrangement the introductory or preliminary chapter in Iowa history deals with geological and geographical considerations. But the first chapter proper in Iowa history is ethnological in its character—it deals with the people. First, it deals with the prehistoric peoples; then it considers the white settlers and the emigrants. For the study of the earliest inhabitants Anthropology is a most valuable instrument. In the study of later inhabitants—their race characteristics, their customs, their institutions, their language, their religions, their ideals, etc.,—Anthropology is able to render the greatest of service.

We have talked much about Anthropology, now let us go to work. Let us look up the archæological remains of extinct races in Iowa: Let us survey the mounds and prehistoric works of the State. Let us learn the character and type of the peoples who have been here. Let us look up the remnants of the Indian tribes still extant, and learn from them the story of their peoples. And it is high time to make organization effective in accomplishing this most im-

portant work. If we do not undertake the work soon, some of our neighbors will do it for us and rob our State of all valuable anthropological material. Already neighboring societies have been at work and are planning further invasions.

THE BUSINESS MEETING

The afternoon session adjourned at 4:45. After a short social recess, the Association was called to order by the President for business purposes.

An invitation from the Davenport Academy of Sciences was extended by Vice-President Paarmann for the Association to hold its next yearly meeting in Davenport.

After some discussion it was

Voted, That the time and place of holding the next yearly meeting shall be left with the Executive Board.

The report of the Nominating Committee was presented by the chairman, Professor Nutting. He stated that it was the opinion of the Committee that the same officers should proceed with the work for the coming year inasmuch as the organization had been so recently completed. As the President, however, was unable to serve, the Committee placed in nomination Professor I. A. Loos for that office, and for the remaining officers the names as they now stand.

Voted, That the report of the Committee be accepted.

Voted, That the officers for the ensuing year be as follows:—

President, Isaac A. Loos; Vice-President, J. H. Paarmann; Secretary, Duren J. H. Ward; Treasurer, Frederick E. Bolton; Executive Board (additional), Frederick J. Becker,

Harry G. Plum, Joseph W. Rich, Benjamin F. Shambaugh, Arthur G. Smith.

Voted, That the dues that have been paid thus far be the dues payable to the Association for the year ending with the next yearly meeting.

The following resolutions were offered by Professor Loos, seconded by Professor Shambaugh, and adopted by the Association:—

Resolved: (1) That we heartily endorse the project of an Anthropological Survey of Iowa begun by Dr. D. J. H. Ward during the past several months; (2) That we empower the Executive Board to make provisions for carrying forward this work inaugurated by Dr. Ward, as well as other lines of Anthropological work which may commend themselves to the Board.

Professor McGee spoke of the great aid given to American Archæology by the United States Geological Survey, and asked whether it would not be possible for the State Geological Survey to render much assistance to the Association in this phase of its work.

Professor Calvin replied, as Chief of the State Geological Survey, that it would be possible and would add no appreciable burden to the Geologists to help locate the mounds and earthworks of the State in those regions where the work was yet unfinished.

Corroborative and encouraging remarks were made by Professors Loos, Nutting, and Shambaugh.

The Secretary spoke of the outside demand for more meetings. He gave the experience and practice of the Anthropological Association at New Haven, Conn., and of the

Ohio Archæological Association. He suggested that the Executive Board should arrange for meetings whenever papers, suitable exhibits or addresses shall be available. Various individuals expressed their concurrence. Inasmuch as this is constitutionally within the province of the Executive Board the matter was left with the general approval without vote.

Voted, To adjourn until the evening session at eight o'clock.

EVENING SESSION

This was a general public meeting in the Assembly Room of the Hall of Liberal Arts. Two hundred people were present.

President Calvin introduced the speaker of the occasion by most commendatory remarks on Professor McGee's earlier work in the study of the physiography of Iowa and of the mounds in the Northeastern part of the State.

Professor W. J. McGee chose for his subject "Three Stages of Human Progress—Fire, Knife, and Wheel."

From the answers to the question, *Why?* have arisen all the sciences.

As applied to man, the answers to the question, *What?* are found in the branches which relate to the structure of the individual man, viz., Somatology and Psychology. Ethnography and Anthropology reply to the question, *Where?* and *How?* is told by those sciences which treat of the relations between individuals and groups, viz., by Ethnology and Sociology. *Whence-Whither?* is responded to by the doctrine of Evolution and by Archæology and Philosophy. For the promotion of Archæology—and to

some extent of the others—various institutions have been lately developed. Examples are: the Bureau of Ethnology, American Institute of Archæology, Davenport Academy of Sciences, the American Anthropological Association, and lastly the Iowa Anthropological Association.

Archæology shows that the course of human development has been one of progress. No generation is the duplicate of the one before. Each is the summation of all before—and something more. The procession of the generations is from lower to higher, from weaker to stronger.

But the various stages of progress were not inventions in our sense of the term. In all the early stages man thinks slowly, in accordance with and following after his doing.

The three greatest stages are: (1) The conquest of fire. All human beings use fire. No animal does. Man is the fire-using animal. Man was revolutionized more by the first use of fire than by steam. (2) The conquest of the wheel. It seems to have begun in a game. A disk was rolled in a path. Young warriors cast darts at it with a view to turning it over. Here was a contest between the two potencies or deities which each adored. Which of the two was more powerful? The effort and excitement were an invocation to the best. Nor did the contest end with the game. Sometimes the stone disk was ring-formed. Then the object was to shoot through it. Sometimes it was of wood. It was always treasured, often carried. When the savage was exhausted by thirst or otherwise, if he could kick it forward and get up to it, it would at last bring him to water or safety. By and by heavy burdens were put on it and it rolled them on—beams and things too heavy to carry.

There was always the fiducial motive. It was not a device. If not at first round, it was worn by use to a cylinder form. Success increased the faith, and thereby the use. Finally the cylinder was modified by cutting out the center a little. This form is found yet in the East. It had many steps in the development. Here is the incipient axle with two wheels. By and by the fiducial motive dropped into the background and the ingenuity was more prominent. At the start there is no specialization. Each object is used for a great variety of purposes. (3) The knife at first was a natural stone. Primitive tribes have no special knife-sense such as we have. Compare also our now-developed watch-sense. Only very gradually does man come to realize special uses. An example of this was seen in the Mexican Seri Indian who ate from the large mass of dried horse flesh by holding it to his mouth instead of cutting it off with the machette which he had in his belt. Even if their implements are improved by accident, they do not see the new uses, but throw them away as did the Mexican woman her disk (with great ceremony) when by accidental breaking it was made into an ax!

The arrow, harpoon, and fire-stick are three forms of the knife among primitive peoples. The same idea of potencies here coming from animal deities, is at the root of their use. Here, as in the wheel, there is primarily the mystical, devotional feeling.

Now, to go back to the first, fire is thought of as a creature. It is a life. Its production is not a mechanical process, but a vital one. There are many ways of getting it. The study of these show why in this way and why in that. Again, it is fed with favorite foods. So too it is punished with water, etc.

Everywhere the dark unknown is dreaded by the primitive man. All his deities show this in their character. All of them are evil because of this. The way upward has been long and painfully slow. The slowness shows us how important were those early stages. They have all been shaped by beliefs, and each belief has given way to newer, better beliefs. The dread is mostly gone. Intent to better is now dominant. The larger fiduciary trust has supplanted the hesitant fear.

Here ended the First Yearly Meeting of the Iowa Anthropological Association, of which the above is a condensed report.

Respectfully submitted

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